# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION
**Washington, D.C. 20549**

## FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the quarterly period ended March 31, 2021**

**or**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from_____ to _____**

**Commission File Number: 001-32979**

# Molecular Templates, Inc.

**(Exact name of registrant as specified in its charter)**

| **Delaware** | **94-3409596** |
|---|---|
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |
| **9301 Amberglen Blvd<br>Suite 100<br>Austin, TX 78729<br>(Address of principal executive offices)** | **78729<br>(Zip Code)** |

**(512) 869-1555**
**(Registrant's telephone number, including area code)**

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|---|---|
| Common Stock, $0.001 Par Value Per Share | MTEM | The Nasdaq Global Select Market |

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated filer | ☐ |
| Non-accelerated filer | ☒ | Smaller reporting company | ☒ |
| | | Emerging growth company | ☐ |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

On May 10, 2021 there were 56,094,534 shares of common stock, par value $0.001 per share, of Molecular Templates, Inc. outstanding.

## FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, including the sections entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations", contains forward-looking statements that involve risks and uncertainties. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements, other than statements of historical facts contained herein, regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these identifying words. These forward-looking statements include, but are not limited to, statements about:

- the implementation of our business strategies, including our ability to pursue development pathways and regulatory strategies for MT-5111, TAK-169, MT-6402 and other engineered toxin body ("ETB") biologic candidates;
- our utilization of a next-generation ETB scaffold that has been designed to reduce or eliminate the propensity for innate immunity, including capillary leak syndrome ("CLS");
- the timing and our ability to advance the development of our drug or biologic candidates;
- our plans to pursue discussions with regulatory authorities, and the anticipated timing, scope and outcome of related regulatory actions or guidance;
- our ability to establish and maintain potential new partnering or collaboration arrangements for the development and commercialization of ETB biologic candidates;
- our ability to obtain the benefits we anticipate from partnering or collaboration agreements that we may enter into;
- our financial condition, including our ability to obtain the funding necessary to advance the development of our drug or biologic candidates;
- the anticipated progress of our drug or biologic candidate development programs, including whether our ongoing and potential future clinical trials will achieve clinically relevant results;
- our ability to generate data and conduct analyses to support the regulatory approval of our drug or biologic candidates;
- our ability to establish and maintain intellectual property rights for our drug or biologic candidates;
- whether any drug or biologic candidates that we are able to commercialize are safer or more effective than other marketed products, treatments or therapies;
- our ability to discover and develop additional drug or biologic candidates suitable for clinical testing;
- our ability to identify, in-license or otherwise acquire additional drug or biologic candidates and development programs;
- our anticipated research and development activities and projected expenditures;
- our ability to complete preclinical and clinical testing successfully for new drug or biologic candidates that we may develop or license;
- our ability to have manufactured active pharmaceutical ingredient, or API, and drug or biologic product that meet required release and stability specifications;
- our ability to have manufactured sufficient supplies of drug product for clinical testing and commercialization;
- our ability to obtain licenses to any necessary third-party intellectual property;
- our anticipated use of proceeds from any financing activities;
- our ability to retain and hire necessary employees and appropriately staff our development programs;
- the extent to which COVID-19 will continue to impact our business operations or financial condition;
- our projected financial performance; and
- the sufficiency of our cash resources; and other risks and uncertainties, including those listed under Part I, Item 1A, "Risk Factors".

Any forward-looking statements in this Quarterly Report on Form 10-Q reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under Part II, Item 1A, "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q. Given these

uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This Quarterly Report on Form 10-Q also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

As used in this Quarterly Report on Form 10-Q, unless otherwise stated or the context otherwise indicates, references to “Molecular,” the “Company,” “we,” “our,” “us” or similar terms refer to Molecular Templates, Inc., and our wholly owned subsidiaries.

**Molecular Templates, Inc.**

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**PART I. FINANCIAL INFORMATION**

**ITEM 1. FINANCIAL STATEMENTS**

**Molecular Templates, Inc.**
**CONDENSED CONSOLIDATED BALANCE SHEETS**
**(in thousands, except share and per share data)**

| | March 31, 2021 | December 31, 2020 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $ 98,786 | $ 25,218 |
| Marketable securities, current | 103,498 | 68,667 |
| Prepaid expenses | 6,178 | 6,080 |
| Accounts receivable, related party | — | 234 |
| Other current assets | 719 | 1,125 |
| Total current assets | 209,181 | 101,324 |
| Marketable securities, non-current | 5,115 | — |
| Operating lease right-of-use assets | 10,625 | 11,104 |
| Property and equipment, net | 21,707 | 22,254 |
| Other assets | 5,146 | 5,195 |
| Total assets | $ 251,774 | $ 139,877 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | $ 1,804 | $ 2,350 |
| Accrued liabilities | 9,801 | 12,575 |
| Deferred revenue, current | 49,453 | 14,014 |
| Deferred revenue, current, related party | 1,072 | 789 |
| Other current liabilities, related party | 12,060 | 5,614 |
| Other current liabilities | 2,386 | 2,211 |
| Total current liabilities | 76,576 | 37,553 |
| Deferred revenue, long-term | 36,117 | 4,538 |
| Deferred revenue, long-term, related party | 2,586 | 3,106 |
| Long-term debt, net of current portion | 15,031 | 14,926 |
| Operating lease liabilities | 11,586 | 12,213 |
| Other liabilities, related party | — | 6,711 |
| Other liabilities | 1,523 | 1,490 |
| Total liabilities | 143,419 | 80,537 |
| Commitments and contingencies (Note 10) | | |
| Stockholders' equity | | |
| Preferred stock, $0.001 par value: | | |
| Authorized: 2,000,000 shares at March 31, 2021 and December 31, 2020; issued and outstanding: 250 shares at March 31, 2021 and December 31, 2020 | — | — |
| Common stock, $0.001 par value: | | |
| Authorized: 150,000,000 shares at March 31, 2021 and December 31, 2020; issued and outstanding: 56,082,931 shares at March 31, 2021 and 49,984,333 shares at December 31, 2020 | 56 | 50 |
| Additional paid-in capital | 404,116 | 328,314 |
| Accumulated other comprehensive income | 2 | 17 |
| Accumulated deficit | (295,819) | (269,041) |
| Total stockholders' equity | 108,355 | 59,340 |
| Total liabilities and stockholders' equity | $ 251,774 | $ 139,877 |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**Molecular Templates, Inc.**
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**
**(in thousands, except share and per share data)**
**(unaudited)**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Research and development revenue, related party | $ 237 | $ 333 |
| Research and development revenue, other | 2,983 | 1,467 |
| Grant revenue | — | 2,341 |
| Total revenue | 3,220 | 4,141 |
| Operating expenses: | | |
| Research and development | 21,368 | 20,631 |
| General and administrative | 8,181 | 5,647 |
| Total operating expenses | 29,549 | 26,278 |
| Loss from operations | 26,329 | 22,137 |
| Interest and other income, net | 52 | 472 |
| Interest and other expense, net | (501) | (348) |
| Loss before provision for income taxes | 26,778 | 22,013 |
| Provision for income taxes | — | 5 |
| Net loss | 26,778 | 22,018 |
| Net loss attributable to common shareholders | $ 26,778 | $ 22,018 |
| Net loss per share attributable to common shareholders: | | |
| Basic and diluted | $ 0.51 | $ 0.48 |
| Weighted average number of shares used in net loss per share calculations: | | |
| Basic and diluted | 52,564,628 | 45,649,065 |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**Molecular Templates, Inc.**
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**
**(in thousands, except share and per share data)**
**(unaudited)**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Net loss** | $ 26,778 | $ 22,018 |
| **Other comprehensive income:** | | |
| Unrealized gain, (loss) on available-for-sale securities | (15) | 264 |
| **Comprehensive loss** | $ 26,793 | $ 21,754 |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**MOLECULAR TEMPLATES, INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)**
**(in thousands, except share data)**
**(unaudited)**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2021** | **2020** |
| **Total Stockholders' Equity (Deficit), beginning balances** | $ 59,340 | $ 103,028 |
| Preferred Stock: | | |
| Beginning balance | — | — |
| Issuance of preferred stock | — | — |
| Ending balance | — | — |
| Common Stock: | | |
| Beginning balance | 50 | 46 |
| Issuance of common stock pursuant to stock plans | — | — |
| Issuance of common stock pursuant to public offering | 6 | — |
| Ending balance | 56 | 46 |
| Additional Paid-In Capital | | |
| Beginning balance | 328,314 | 267,089 |
| Issuance of common stock pursuant to stock plans | 597 | 300 |
| Stock-based compensation | 4,066 | 2,192 |
| Issuance of common stock pursuant to public offering | 71,139 | — |
| Ending balance | 404,116 | 269,581 |
| Accumulated Other Comprehensive Income: | | |
| Beginning balance | 17 | 18 |
| Other comprehensive income | (15) | 264 |
| Ending balance | 2 | 282 |
| Accumulated deficit: | | |
| Beginning balance | (269,041) | (164,125) |
| Net loss | (26,778) | (22,018) |
| Ending balance | (295,819) | (186,143) |
| **Total Stockholders' Equity** | $ 108,355 | $ 83,766 |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**Molecular Templates, Inc.**
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(in thousands)**
**(unaudited)**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Cash flows from operating activities:** | | |
| Net loss | $ 26,778 | $ 22,018 |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation, amortization and other | 1,509 | 618 |
| Stock-based compensation expense | 4,066 | 2,192 |
| Amortization of debt discount and accretion related to debt | 105 | 148 |
| Accretion of asset retirement obligations | 33 | 32 |
| Loss on disposal of equipment | 36 | — |
| Changes in operating assets and liabilities: | | |
| Prepaid expenses | (98) | (1,409) |
| Accounts receivable, related party | 234 | (892) |
| Grants revenue receivable | — | (2,341) |
| Other assets | 442 | 293 |
| Operating lease right-of-use assets and liabilities | 28 | (60) |
| Accounts payable | (869) | 260 |
| Accrued liabilities | (3,010) | (3,912) |
| Other liabilities | — | 1,746 |
| Other liabilities, related party | (265) | 7,754 |
| Deferred revenue | 67,018 | (1,467) |
| Deferred revenue, related party | (237) | 907 |
| Net cash provided by/(used in) operating activities | 42,214 | (18,149) |
| **Cash flows from investing activities:** | | |
| Purchases of property and equipment | (435) | (938) |
| Purchase of marketable securities | (73,652) | (50,463) |
| Sales of marketable securities | 33,700 | 18,450 |
| Net cash used in investing activities | (40,387) | (32,951) |
| **Cash flows from financing activities:** | | |
| Payments of capital and finance lease obligations | (1) | (7) |
| Repayment of long-term debt | — | (200) |
| Proceeds from stock option exercises | 597 | 300 |
| Proceeds from issuance of common stock and warrants, net offering expenses | 71,145 | — |
| Net cash provided by financing activities | 71,741 | 93 |
| Net increase/(decrease) in cash, cash equivalents, and restricted cash | 73,568 | (51,007) |
| Cash, cash equivalents and restricted cash, beginning of period | 28,886 | 88,451 |
| Cash, cash equivalents and restricted cash, end of period | $ 102,454 | $ 37,444 |
| **Reconciliation of cash, cash equivalents and restricted cash** | | |
| Cash and cash equivalents | $ 98,786 | $ 34,444 |
| Restricted cash included in Other assets | 3,668 | 3,000 |
| Total cash, cash equivalents and restricted cash | $ 102,454 | $ 37,444 |
| **Supplemental Cash Flow Information** | | |
| Cash paid for interest | $ 317 | $ 163 |
| **Non-Cash Investing and Financing Activities** | | |
| Fixed asset additions in accounts payable and accrued expenses | $ 559 | $ 944 |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

## NOTE 1 — ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### *Nature of the Business*

Molecular Templates, Inc. (the "Company") is a clinical stage biopharmaceutical company formed in 2001, with a biologic therapeutic platform for the development of novel targeted therapeutics for cancer and other serious diseases, headquartered in Austin, Texas. The Company's focus is on the research and development of therapeutic compounds for a variety of cancers. The Company operates its business as a single segment, as defined by U.S. generally accepted accounting principles ("U.S. GAAP").

In March 2020, the outbreak of COVID-19 caused by a novel strain of the coronavirus was recognized as a pandemic by the World Health Organization. While the COVID-19 pandemic has not had a material adverse impact on the Company's operations to date, the full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain. Additionally, the duration of the pandemic, new information that may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others, could have an adverse impact on the Company. Refer to Item 1A. "Risk Factors" in this Quarterly Report on Form 10-Q for a complete description of risks.

### *Basis of Presentation*

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America and include the accounts of the Company and its wholly owned subsidiary, and reflect the elimination of intercompany accounts and transactions.

The preparation of condensed consolidated financial statements requires management to make estimates and assumptions that affect the recorded amounts reported therein. A change in facts or circumstances surrounding the estimates could result in a change to estimates and impact future operating results.

The unaudited condensed consolidated financial statements and related disclosures have been prepared with the presumption that users of the interim unaudited condensed consolidated financial statements have read or have access to the audited consolidated financial statements for the preceding fiscal year. Accordingly, these unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2020 included in the Company's Annual Report on Form 10-K filed with the SEC on March 19, 2021.

### *Liquidity*

At March 31, 2021, we had cash, cash equivalents, and marketable securities of $207.4 million. We have devoted substantially all of our resources to developing our ETB candidates and platform technology, building our intellectual property portfolio, developing our supply chain, conducting business planning, raising capital and providing for general and administrative support for these operations. We expect that our existing cash, cash equivalents and marketable securities will enable us to fund our operating expenses and capital expenditure requirements into the second half of 2023.

### *Significant Accounting Policies*

There have been no material changes to the Company's significant accounting policies during the three months ended March 31, 2021, as compared to the significant accounting policies disclosed in Note 1, "Summary of Significant Accounting Policies", to the consolidated financial statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2020.

### *Cash and Cash Equivalents*

The Company considers temporary investments having original maturities of three months or less from date of purchase to be cash equivalents. Restricted cash is recorded in other assets, based on when the restrictions expire. Other assets include $3.7 million of restricted cash at March 31, 2021 related toletters of credit in lieu of a cash deposit for the Company's leases.

### *Fair Value Measurement*

The Company accounts for its marketable securities in accordance with ASC 820*"Fair Value Measurements and Disclosures."* ASC 820 defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a

liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

*Level 1*—Quoted prices in active markets for identical assets or liabilities.

*Level 2*—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

*Level 3*—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. For Level 2 securities that have market prices from multiples sources, a "consensus price" or a weighted average price for each of these securities can be derived from a distribution-curve-based algorithm which includes market prices obtained from a variety of industrial standard data providers (e.g. Bloomberg), security master files from large financial institutions, and other third-party sources. Level 2 securities with short maturities and infrequent secondary market trades are typically priced using mathematical calculations adjusted for observable inputs when available.

***Concentration of Credit Risk and Other Risks and Uncertainties***

Financial instruments that potentially subject the Company to concentrations of risk consist principally of cash and cash equivalents, investments, long term debt and accounts receivable.

The Company's cash and cash equivalents are with two major financial institutions in the United States.

The Company performs an ongoing credit evaluation of its strategic partners' financial conditions and generally does not require collateral to secure accounts receivable from its strategic partners. The Company's exposure to credit risk associated with non-payment will be affected principally by conditions or occurrences within Millennium Pharmaceuticals, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Ltd. ("Takeda"), Vertex Pharmaceuticals Incorporated ("Vertex") and Bristol Myers Squibb Company ("Bristol Myers Squibb" or "BMS"). Takeda accounted for approximately 7% and 8% of total revenues for the three months ended March 31, 2021 and 2020, respectively. Vertex accounted for approximately 63% and 35% of total revenues for the three months ended March 31, 2021 and 2020, respectively. BMS accounted for approximately 30% and 0% of total revenue for the three months ended March 31, 2021 and 2020, respectively.

Drug or biologic candidates developed by the Company may require approvals or clearances from the U.S. Food and Drug Administration ("FDA") or international regulatory agencies prior to commercial sales. There can be no assurance that the Company's drug or biologic candidates will receive any of the required approvals or clearances. If the Company were to be denied approval or clearance or any such approval or clearance were to be delayed, it would have a material adverse impact on the Company.

***Recently Issued Accounting Pronouncements***

In December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740: Simplifying the Accounting for Income Taxes), which removes certain exceptions to the general principles in Topic 740 ASU 2019-12. This guidance was effective for the Company beginning January 1, 2021.The impact of the adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In August 2020, the FASB issued ASU No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (Subtopic 470-20: Debt with Conversion and Other Options and Subtopic 815-40: Derivatives and Hedging - Contracts in Entity's Own Equity). The new guidance simplifies accounting for convertible instruments by removing major separation models, removes certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception and it also simplifies the diluted earnings per share calculation in certain areas. The amendment is effective for the Company for fiscal years beginning after December 15, 2023. The Company is currently evaluating the impact of the adoption of this standard on its consolidated financial statements.

**NOTE 2 — NET LOSS PER COMMON SHARE**

Basic net loss per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during the period utilizing the two-class method. Preferred Stock Shareholders participate equally with Common Stock Shareholders in earnings, but do not participate in losses, and are excluded from the basic net loss calculation. Diluted net loss per

share is computed by giving effect to all potential dilutive common shares, including outstanding options, warrants and convertible preferred stock. More specifically, at March 31, 2021 and March 31, 2020, stock options, warrants and, if converted, preferred stock totaling approximately 12,144,173 and 9,688,920 common shares, respectively, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive.

## NOTE 3 — RESEARCH AND DEVELOPMENT AGREEMENTS

***Disaggregated Research and Development Revenue***

Research and development revenue is attributable to regions based on the location of our collaboration partner's parent company headquarters. Research and development revenues disaggregated by location were as follows (in thousands):

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Japan | $ 237 | $ 333 |
| United States | 2,983 | 1,467 |
| Total research and development revenue | $ 3,220 | $ 1,800 |

***Related Party Collaboration Agreement - Takeda***

Research and development revenue from related party relates to revenue from research and development agreements with Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda") and were as follows (in thousands):

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Takeda Development and License Agreement | $ 215 | $ 147 |
| Takeda Multi-Target Agreement | 22 | 186 |
| Total research and development revenue, related party | $ 237 | $ 333 |

At March 31, 2021 and December 31, 2020 the Company had deferred revenue, other liabilities for co-share payments and accounts receivable balances from the research and development agreements with Takeda, who was a related party. These amounts were as follows (in thousands):

| | March 31, 2021 | December 31, 2020 |
|---|---|---|
| ***Assets*** | | |
| Accounts receivable | $ — | $ 234 |
| ***Liabilities*** [1] | | |
| Other current liabilities | $ 12,060 | $ 5,614 |
| Deferred revenue, current | 1,072 | 789 |
| Deferred revenue, non-current | 2,586 | 3,106 |
| Other liabilities | — | 6,711 |
| Total liabilities | $ 15,718 | $ 16,220 |

1. Liabilities is also inclusive of $0.2 million in Accounts Payable due to Takeda.

*Takeda Development and License Agreement*

On September 18, 2018, the Company entered into a Development Collaboration and Exclusive License Agreement with Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda Development and License Agreement"), for the development and commercialization of products incorporating or comprised of one or more CD38 SLT-A fusion proteins ("Licensed Products") for the treatment of patients with diseases such as multiple myeloma.

The Company identified one performance obligation at the inception of the Takeda Development and License Agreement, the research and development services for the CD38-targeted SLT-A fusion protein, including manufacturing. The Company determined that research, development and commercialization license and the participation in the committee meetings are not distinct from the research and development services and therefore those promised services were combined into one combined performance obligation.

The total transaction price of $29.8 million consisted of (1) the $30.0 million upfront payment, (2) a $10.0 million development milestone payment that was received in the first quarter of 2020, (3) minus $10.2 million which was the expected co-share payment payable to Takeda during Early-Stage Development, as defined in the Takeda Development and License Agreement. The expected co-share payment was considered variable consideration, and the Company applied a constraint using the expected value method. Significant judgement was involved in determining transaction consideration, including the determination of the variable consideration, including the constraint on consideration.

The Company recognizes revenue using a cost-based input measure. In applying the cost-based input method of revenue recognition, the Company used actual costs incurred relative to budgeted costs expected to be incurred for the combined performance obligation. These costs consist primarily of internal employee efforts and third-party contract costs. Revenue is recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligation over the estimated service period.

In July 2019, the Company exercised its co-development option and the agreed upon collaboration budget was increased to cover additional research and development activities. The Company evaluated the additional research and development services and concluded these services were distinct from services currently being provided and represented a cost sharing arrangement between the Company and Takeda. As such, the additional research and development expenses were expensed as incurred.

At March 31, 2021 and December 31, 2020, total deferred revenue related to the performance obligation was $1.1 million and $1.3 million, respectively. For additional information regarding the Takeda Development and License Agreement, please see Note 14, “Subsequent Events”.

*Takeda Multi-Target Agreement*

In June 2017, the Company entered into a Multi-Target Collaboration and License Agreement with Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited (the “Takeda Multi-Target Agreement”), in which the Company agreed to collaborate with Takeda to identify and generate ETBs, against two targets designated by Takeda. Takeda designated certain targets of interest as the focus of the research. Each party granted to the other nonexclusive rights in its intellectual property for purposes of the conduct of the research, and the Company agreed to work exclusively with Takeda with respect to the designated targets.

Under the Takeda Multi-Target Agreement, Takeda has an option during an option period to obtain an exclusive license under the Company’s intellectual property to develop, manufacture, commercialize and otherwise exploit ETBs against the designated targets. The option period for each target ends three months after the completion of the evaluation of such designated target.

The Company received cumulative payments of $5.0 million from Takeda pursuant to the Takeda Multi-Target Agreement. The Company may receive additional payments from the following:

- $30.0 million in aggregate through the exercise of the option to license ETBs.
- Clinical development milestone payments of up to approximately $397.0 million, for achievement of development milestones and regulatory approval of collaboration products under the Takeda Multi-Target Agreement.
- Commercial milestone payments of up to $150.0 million, for achievement of pre-specified sales milestones related to net sales of all collaboration products under the Takeda Multi-Target Agreement.
- Tiered royalty payments of a mid-single to low-double digit percentage of net sales of any licensed ETBs, subject to certain reductions.
- Up to $10.0 million in certain contingency fees.

The Takeda Multi-Target Agreement will expire on the expiration of all option periods (three months after the completion of the evaluation of materials for the designated targets) for the designated targets if Takeda does not exercise its options, or, following exercise of any option, on the expiration of the last Royalty Term (the latest of the expiration of patent rights claiming the licensed ETB, expiration of regulatory exclusivity for the licensed ETB or ten years from first commercial sale of the licensed ETB). The Takeda Multi-Target Agreement may be terminated sooner by Takeda for convenience or upon a material change of control of the Company, or by either party for an uncured material breach of the agreement. Under the Takeda Multi-Target Agreement, both parties have the right to terminate the agreement immediately upon written notice, under certain defined circumstances.

The Company evaluated the Takeda Multi-Target Agreement’s termination clause and concluded that it was a non-substantive termination provision. As such, the Company believes that an initial contract term is the length of the termination notice period, with a deemed renewal option to continue the research and development services over the remainder of the contract term as a material right.

The Company determined that the promised goods and services under the Takeda Multi-Target Agreement were the background intellectual property license, the research and development services, manufacturing during the initial contract period, and a renewal option to continue the research and development services. The Company determined that there were two performance obligations: research and development services, and the renewal options. Since the background intellectual property and manufacturing were not

distinct from the research and development services, they were deemed to be one performance obligation. Transaction consideration was allocated to each of the performance obligations using an estimate of the standalone selling price, and revenues are recognized over the period that the research and development services occur. The Company also concluded that, since the option for the exclusive license is deemed to be at fair value, the option does not provide the customer with a material right and should be accounted for if and when the option is exercised.

At March 31, 2021 and December 31, 2020, deferred revenue related to the performance obligation was $2.6 million and $2.6 million, respectively.

***Vertex Collaboration Agreement***

In November 2019, the Company entered into a Master Collaboration Agreement (the "Vertex Collaboration Agreement") with Vertex Pharmaceuticals Incorporated ("Vertex"), to perform strategic research leveraging the Company's engineered toxin body ("ETB") technology platform to discover and develop novel targeted biologic therapies for applications outside of oncology.

Pursuant to the terms of the Vertex Collaboration Agreement, the Company granted Vertex an exclusive option to obtain an exclusive license under the Company's licensed technology to exploit one or more ETB products that are discovered by the Company against up to two designated targets. Vertex has selected an initial target and has the option to designate one additional target within specified time limits.

Vertex paid the Company an upfront payment of $38 million, consisting of $23 million in cash and a $15 million equity investment pursuant to a Share Purchase Agreement (the "SPA"). In addition to the upfront payments, the Company may also receive an additional $22 million through the exercise of the options to license ETB products or to add an additional target. Additionally, Vertex will reimburse the Company for certain mutually agreed manufacturing technology transfer activities. The Company had $14.7 million of Deferred revenue, current, and $1.7 million of Deferred revenue, non-current, at March 31, 2021 related to the Vertex Collaboration Agreement. The Company had $13.9 million of Deferred revenue, current, and $4.5 million of Deferred revenue, non-current, at December 31, 2020 related to the Vertex Collaboration Agreement.

The Company may, for each target under the Vertex Collaboration Agreement, receive up to an additional $180 million in milestone payments upon the achievement of certain development and regulatory milestone events and up to an additional $70 million in milestone payments upon the achievement of certain sales milestone events. The Company will also be entitled to receive, subject to certain reductions, tiered mid-single digit royalties as percentages of calendar year net sales, if any, on any licensed product.

The Company will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise by Vertex of its option for a development candidate, Vertex will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate.

Unless earlier terminated, the Vertex Collaboration Agreement will expire (i) on a country-by-country basis and licensed product-by-licensed product basis on the date of expiration of all payment obligations under the Vertex Collaboration Agreement with respect to such licensed product in such country and (ii) in its entirety upon the expiration of all payment obligations thereunder with respect to all licensed products in all countries or upon Vertex's decision not to exercise any option on or prior to the applicable deadlines. Vertex has the right to terminate the Vertex Collaboration Agreement for convenience upon prior written notice to the Company. Either party has the right to terminate the Vertex Collaboration Agreement (a) for the insolvency of the other party or (b) subject to specified cure periods, in the event of the other party's uncured material breach.

The Company identified one performance obligation at the inception of the Vertex Collaboration Agreement consisting of research and development services. The Company recognizes revenue under the Vertex Collaboration Agreement using a cost-based input measure. In applying the cost-based input method of revenue recognition, the Company will use actual costs incurred relative to budgeted costs expected to be incurred. These costs consist primarily of internal employee efforts and third-party contract costs. Revenue is recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligation over the estimated service period.

In connection with the Vertex Collaboration Agreement, the Company and Vertex entered into a SPA pursuant to which Vertex agreed to purchase 1,666,666 shares of the Company's common stock, par value $0.001 per share, at a price per share of $9.00. As the price per share was in excess of the fair value of the Company's common stock, the Company allocated $4.5 million of this consideration to the Vertex Collaboration Agreement. The issuance of these shares was pursuant to a private placement exemption from registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506 of Regulation D thereunder.

In addition to the SPA, the Vertex Collaboration Agreement contemplates that the Company may enter into certain other ancillary arrangements with Vertex.

***Bristol Myers Squibb Collaboration Agreement***

In February 2021, the Company, entered into a Collaboration Agreement (the "BMS Collaboration Agreement") with Bristol Myers Squibb Company ("Bristol Myers Squibb") to perform strategic research collaboration leveraging the Company's ETB technology platform to discover and develop novel products containing ETBs directed to multiple targets.

Pursuant to the terms of the BMS Collaboration Agreement, the Company granted Bristol Myers Squibb a series of exclusive options to obtain one or more exclusive licenses under the Company's intellectual property to exploit products containing ETBs directed against certain targets designated by Bristol Myers Squibb.

Bristol Myers Squibb paid the Company an upfront payment of $70.0 million. In addition to the upfront payment, the Company may receive near term and development and regulatory milestone payments of up to $874.5 million. The Company will also be eligible to receive up to an additional $450.0 million in payments upon the achievement of certain sales milestones, and subject to certain reductions, tiered royalties ranging from mid-single digits up to mid-teens as percentages of calendar year net sales, if any, on any licensed product. The Company had $34.6 million and $0.0 of Deferred revenue, current, at March 31, 2021 and December 31, 2020, respectively, related to the BMS Collaboration Agreement. The Company had $34.4 million and $0.0 of Deferred revenue, non-current, at March 31, 2021 and December 31, 2020, respectively, related to the BMS Collaboration Agreement.

The Company will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise of its option for a development candidate, Bristol Myers Squibb will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate.

Unless earlier terminated, the BMS Collaboration Agreement will expire (i) on a country-by-country basis and licensed product-by-licensed product basis, on the date of expiration of the royalty payment obligations under the BMS Collaboration Agreement with respect to such licensed product in such country and (ii) in its entirety upon the earlier of (a) the expiration of the royalty payment obligations under the BMS Collaboration Agreement with respect to all licensed products in all countries or (b) upon Bristol Myers Squibb's decision not to exercise any option on or prior to the applicable option deadlines. Bristol Myers Squibb has the right to terminate the BMS Collaboration Agreement for convenience upon prior written notice to the Company. Either party has the right to terminate the BMS Collaboration Agreement (a) for the insolvency of the other party or (b) subject to specified cure periods, in the event of the other party's uncured material breach. The Company has the right upon prior written notice to terminate the BMS Collaboration Agreement in the event that Bristol Myers Squibb or any of its affiliates asserts a challenge against the Company's patents.

The Company identified one performance obligation at the inception of the BMS Collaboration Agreement consisting of research and development services. The Company recognizes revenue under the BMS Collaboration Agreement using a cost-based input measure. In applying the cost-based input method of revenue recognition, the Company will use actual costs incurred relative to budgeted costs expected to be incurred. These costs consist primarily of internal employee efforts and third-party contract costs. Revenue is recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligation over the estimated service period.

***Grant Agreements***

In September 2018, the Company entered into a Cancer Research Agreement (the "CD38 CPRIT Agreement") with the Cancer Prevention and Research Institute of Texas ("CPRIT"). The CD38 CPRIT Agreement was extended in May 2021, under which CPRIT awarded a $15.2 million product development grant to fund research of a cancer therapy involving a CD38 targeting ETB. Pursuant to the CD38 CPRIT Agreement, the Company may also use such funds to develop a replacement CD38 targeting ETB, with or without a partner.

In 2011, the Company entered into a Cancer Research Agreement (the "CPRIT Agreement") with CPRIT under which CPRIT awarded a $10.6 million product development grant for the CD20-targeting ETB MT-3724. This product development grant ended in November 2019. At March 31, 2021 the Company had received $20.0 million and has a remaining receivable of $0.0.

During the three months ended March 31, 2021 and March 31, 2020, the Company recognized $0.0 and $2.3 million, respectively, in grant revenue under these awards. Qualified expenditures submitted for reimbursement in excess of amounts received are recorded as receivables in Grant revenue receivable. At March 31, 2021 and December 31, 2020, the Company had $0.0 recorded in Grants revenue receivable.

**NOTE 4 — RELATED PARTY TRANSACTIONS**

*Takeda Agreements*

In connection with the Takeda Multi-Target Agreement described in Note 3 "Research and Development Collaboration Agreements", Takeda became a related party, following the Takeda Stock Purchase Agreement described in Note 11 "Stockholders' Equity", of the Company's previously filed Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 19, 2021. Refer to Note 3, "Research and Development Collaboration Agreements", for more details about the Takeda Multi-Target Agreement and the Takeda Development and License Agreement. Jonathan Lanfear, a director of the Company, was the Vice President and Global Head of Oncology and Neuroscience Business Development for Takeda until September 25, 2020.

**NOTE 5 —MARKETABLE SECURITIES AND FAIR VALUE MEASUREMENTS**

The following table sets forth the Company's financial assets (cash equivalents and marketable securities) at fair value on a recurring basis (in thousands):

| | | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| | March 31, 2021 | Level 1 | Level 2 | Level 3 |
| Money market funds | $ 87,936 | $ 87,936 | $ — | $ — |
| Commercial paper | 105,831 | — | 105,831 | — |
| United States Treasury Bills | 8,026 | — | 8,026 | — |
| United States government-related debt securities | 2,005 | — | 2,005 | — |
| Cash | 1,749 | 1,749 | — | — |
| Total | $ 205,547 | $ 89,685 | $ 115,862 | $ — |
| Amounts included in: | | | | |
| Cash and cash equivalents | $ 96,934 | | | |
| Marketable securities, current | 103,498 | | | |
| Marketable securities, non, current | 5,115 | | | |
| Total cash equivalents and marketable securities | $ 205,547 | | | |

| | | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| | December 31, 2020 | Level 1 | Level 2 | Level 3 |
| Money market funds | $ 23,794 | $ 23,794 | $ — | $ — |
| Commercial paper | 42,863 | — | 42,863 | — |
| United States Treasury Bills | 21,794 | — | 21,794 | — |
| United States government-related debt securities | 4,009 | — | 4,009 | — |
| Total | 92,460 | 23,794 | 68,666 | $ — |
| Amounts included in: | | | | |
| Cash and cash equivalents | 23,793 | | | |
| Marketable securities, current | $ 68,667 | | | |
| Total cash equivalents and marketable securities | $ 92,460 | | | |

The Company invests in highly-liquid, investment-grade securities. The following is a summary of the Company's available-for-sale securities for-sale securities (in thousands):

| | March 31, 2021 | | | |
|---|---|---|---|---|
| | Cost Basis | Unrealized Gain | Unrealized Loss | Fair Value |
| Cash equivalents - money market funds, commercial paper and corporate bonds | $ 96,934 | $ — | $ — | $ 96,934 |
| Marketable securities, current - commercial paper, Treasury bills and corporate bonds | 103,498 | 6 | (6) | 103,498 |
| Marketable securities, non-current - Treasury bills | $ 5,115 | $ — | $ — | $ 5,115 |

| | December 31, 2020 | | | |
|---|---|---|---|---|
| | Cost Basis | Unrealized Gain | Unrealized Loss | Fair Value |
| Cash equivalents - money market funds, commercial paper and corporate bonds | $ 23,793 | $ — | $ — | $ 23,793 |
| Marketable securities, current - commercial paper, Treasury bills and corporate bonds | 68,650 | 19 | (2) | 68,667 |

The following summarized the contractual maturities of the Company's available-for-sale investments:

| | March 31, 2021 | |
|---|---|---|
| | Cost Basis | Fair Value |
| Due in one year or less | $ 200,432 | $ 200,432 |
| Due after one year through five years | 5,115 | 5,115 |
| Total | $ 205,547 | $ 205,547 |

| | December 31, 2020 | |
|---|---|---|
| | Cost Basis | Fair Value |
| Due in one year or less | $ 92,443 | $ 92,460 |
| Due after one year through five years | — | — |
| Total | $ 92,443 | $ 92,460 |

The Company received no proceeds from the sale of available-for-sale securities for the three months ended March 31, 2021 and March 31, 2020, respectively, and no realized gain for the three months ended March 31, 2021.

**NOTE 6 — BALANCE SHEET COMPONENTS**

Accrued liabilities consisted of the following (in thousands):

| | March 31, 2021 | December 31, 2020 |
|---|---|---|
| Accrued liabilities: | | |
| General and administrative | $ 1,275 | $ 1,577 |
| Clinical trial related costs | 1,454 | 1,743 |
| Non-clinical research and manufacturing operations | 4,271 | 4,321 |
| Payroll related | 2,791 | 4,908 |
| Other accrued expenses | 10 | 26 |
| Total Accrued liabilities | $ 9,801 | $ 12,575 |

**NOTE 7—PROPERTY AND EQUIPMENT**

Property and equipment consists of the following (in thousands):

| | March 31, 2021 | December 31, 2020 |
|---|---|---|
| Laboratory equipment | $ 16,604 | $ 16,159 |
| Leasehold improvements | 12,827 | 12,391 |
| Furniture and fixtures | 471 | 474 |
| Computer and equipment | 666 | 615 |
| | 30,568 | 29,639 |
| Less: Accumulated depreciation | (8,861) | (7,385) |
| Total property and equipment, net | $ 21,707 | $ 22,254 |

Depreciation expense was $1.5 million and $0.7 million for the three months ended March 31, 2021 and March 31, 2020, respectively.

In connection with the continued expansion of the Company's facilities, at March 31, 2021 and December 31, 2020, the Company had netAsset Retirement Obligation (ARO) assets totaling $0.7 million and $0.8 million, respectively. The ARO assets are included in leasehold improvements.

**NOTE 8 — BORROWING ARRANGEMENTS**

***Perceptive Credit Facility***

On February 27, 2018, the Company entered into a term loan facility with Perceptive Credit Holdings II, LP ("Perceptive") in the amount of $10.0 million (the "Perceptive Credit Facility"). The Perceptive Credit Facility consisted of a $5.0 million term loan, which was drawn on the effective date of the Perceptive Credit Facility, and an additional $5.0 million term loan which the Company did not draw down. The principal on the facility accrued interest at an annual rate equal to a three-month LIBOR plus the Applicable Margin. The Applicable Margin was 11.00%. Upon the occurrence, and during the continuance, of an event of default, the Applicable Margin, defined above, would be increased by 4.00% per annum. Payments for the first 24 months were interest only and were paid quarterly. After the second anniversary of the closing date of the Perceptive Credit Facility, principal payments of $0.2 million were due each calendar quarter. The Company incurred $0.5 million in deferred finance costs and issued the debt net of a $1.5 million discount, in connection with the credit facility.

The Company repaid the Perceptive Credit Facility on May 21, 2020, from the proceeds of the K2 Loan and Security Agreement discussed below. Upon the termination of the Perceptive Credit Facility, the Company paid $4.9 million in principal and interest and $0.1 million in exit fees and prepayment penalties. The Company recognized a total loss on extinguishment of debt in the amount of $1.2 million related to the Perceptive Credit Facility.

In connection with the Perceptive Credit Facility, on February 27, 2018 the Company issued Perceptive a warrant to purchase190,000 shares of the Company's common stock. The warrant is exercisable for a period of seven years from the date of issuance at an exercise prices per share of $9.5972, subject to certain adjustments as specified in the Warrant. For further discussion of the warrant, see Note 11, "Stockholders' Equity" to our audited consolidated financial statements for the year ended December 31, 2020, included in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 19, 2021. The fair value of the warrant of $1.5 million was recorded as a debt discount at issuance and was included in the loss on extinguishment.

***K2 Health Ventures Loan and Security Agreement***

On May 21, 2020, the Company entered into a Loan and Security Agreement with K2 HealthVentures LLC in the amount of $45.0 million ("K2 Loan and Security Agreement"). The K2 Loan and Security Agreement consists of three tranches, the first of which was drawn on the closing date in the amount of $15.0 million. The Company provided notice to K2 HealthVentures LLC of its intent to draw down the second tranche of $20.0 million, with such amount anticipated to be funded on or about May 15, 2021. The second tranche was at the Company's option and subject to the achievement of certain clinical milestones. A third tranche of $10.0 million may be drawn after the Company's second tranche draw, but prior to December 31, 2021. The principal accrues interest at an annual rate equal to the greater of 8.45% or the sum of the Prime Rate plus 5.2% and commenced on July 1, 2020. The interest rate at March 31, 2021 was 8.45%. Payments are interest only until July 1, 2022, provided, however, that if no event of default has occurred and the second tranche has been fully funded payments will be interest only until July 1, 2023. After the second anniversary of the closing date of the K2 Loan and Security Agreement, principal payments are due monthly. The loan matures on June 1, 2024 and includes both financial and non-financial covenants including a minimum cash balance requirement. The Company was in compliance with the debt covenants at March 31, 2021 and expects to be compliant with the debt covenants for the next twelve months. The Company recorded the debt net of $1.1 million comprised of deferred financing costs, debt discount and associated exit fee which are being accreted to interest expense over the term of the K2 Loan and Security Agreement using the effective interest method.

Additionally, the Company incurred $0.2 million in facilities fee related to the second tranche which will be classified as a prepaid asset until drawn upon.

As of March 31, 2021 and December 31, 2020, the Perceptive Credit Facility principal balance was $0.0, respectively.

As of March 31, 2021 and December 31, 2020, the K2 Loan principal balance was $15.0 million and $15.0 million, respectively.

As of March 31, 2021 and December 31, 2020, the carrying value of long-term debt was $15.0 million and $14.9 million, respectively.

Future required principal and final payments on the K2 Loan were as follows at March 31, 2021 ($ in thousands):

| | | |
|---|---|---|
| 2021 (remaining) | $ | — |
| 2022 | | 4,105 |
| 2023 | | 7,537 |
| 2024 | | 3,358 |
| Total Principal Amounts | | 15,000 |
| Final Fee Due at Maturity | | 884 |
| Unamortized discount, deferred costs and final fee | | (853) |
| Total Long-Term Debt, net | $ | 15,031 |

**NOTE 9 – LEASES**

The Company has operating leases for administrative offices and research and development facilities, and certain finance leases for equipment. The operating leases have remaining terms of less than two years to less than eight years. Leases with an initial term of 12 months or less will not be recorded on the condensed consolidated balance sheets as operating leases or finance leases, and the Company will recognize lease expense for these leases on a straight-line basis over the lease term. Certain leases include options to renew, with renewal terms that can extend the lease term from three to five years. The exercise of lease renewal options for the Company's existing leases is at the Company's sole discretion and not included in the measurement of lease liability and ROU asset as they are not reasonably certain to be exercised. Certain finance leases also include options to purchase the leased equipment. The depreciable life of assets and leasehold improvements are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. The leases do not contain any residual value guarantees or material restrictive covenants.

In January 2019, the Company entered into a lease agreement for an additional 57,000 square feet of administrative office and research and development space in Austin, Texas. The lease commenced March 2019 and expires August 2028 and does not contain an option to renew. The tables below include the impact of this lease. Upon the commencement of the lease, the Company recorded an operating lease ROU asset and a lease liability of $7.2 million. In connection with entering into the lease and in lieu of a cash deposit, the Company obtained a letter of credit of $3.0 million. Additionally, the Company has recorded an asset retirement obligation as a result of this lease which has a balance of $0.5 million at March 31, 2021.

In June 2020, the Company entered into a lease agreement for office space in New York, New York. The space consists of an initial 9,289 square feet and an additional 3,000 square feet of expansion space. The lease for the initial space commenced on August 1, 2020 and the possession of the expansion space commenced in December 2020. The term for both spaces will expire on October 30, 2025 and does not contain an option to renew. In connection with entering into the lease and in lieu of a cash deposit, the Company obtained a letter of credit in the amount of $0.2 million.

The components of lease expense were as follows (in thousands):

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Operating leases** | | |
| Operating lease expense | $ 726 | $ 561 |
| Variable lease expense | 125 | 130 |
| Total operating lease expense | $ 851 | $ 691 |
| | | |
| **Finance leases** | | |
| Amortization of right-of-use asset | $ — | $ 2 |
| Total finance lease expense | $ — | $ 2 |

The following table summarizes the balance sheet classification of leases at March 31, 2021 (in thousands):

| | | |
|---|---|---|
| **Operating leases** | | |
| Operating lease right-of-use assets | $ | 10,625 |
| | | |
| Operating lease liabilities, current[1] | $ | 2,386 |
| Operating lease liabilities, non-current | | 11,586 |
| Total operating lease liabilities | $ | 13,972 |

1. Included in other current liabilities.

The following table presents other information on leases:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Weighted average remaining lease term, operating leases | 5.91 years | 7 years |
| Weighted average remaining lease term, finance leases | 0.0 | 0.6 |
| Weighted average discount rate, operating leases | 7.04 % | 6.72 % |
| Weighted average discount rate, finance leases | 0.00 % | 6.81 % |

Maturities of lease liabilities were as follows as of March 31, 2021 (in thousands):

| | Operating Leases | |
|---|---|---|
| 2021 (remaining) | $ | 2,442 |
| 2022 | | 3,361 |
| 2023 | | 2,689 |
| 2024 | | 2,218 |
| 2025 | | 2,147 |
| Thereafter | | 4,246 |
| Total lease payments | | 17,103 |
| Less: | | |
| Imputed interest | | (3,131 ) |
| Total lease liabilities | $ | 13,972 |

Supplemental cash flow information related to the Company's leases were as follows (in thousands):

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Cash paid for amounts included in the measurement of lease liabilities: | | |
| Operating cash flows operating leases | $ 756 | $ 515 |
| Financing cash flows finance leases | $ 1 | $ 7 |

**NOTE 10 — CONTRACTUAL COMMITMENTS**

The Company has entered into project work orders for each of its clinical trials with clinical research organizations (each being a "CRO") and related laboratory vendors. Under the terms of these agreements, the Company is required to pay certain upfront fees for direct services costs. Based on the particular agreement some of the fees may be for services yet to be rendered and are reflected as a current prepaid asset and have an unamortized balance of approximately $1.6 million at March 31, 2021. In connection with the Company's clinical trials, it has entered into separate project work orders for each trial with its CRO. The Company has entered into agreements with CROs and other external service providers for services, primarily in connection with the clinical trials and development of the Company's drug or biologic candidates. The Company was contractually obligated for up to approximately $20.9 million of future services under these agreements at March 31, 2021, for which amounts have not been accrued as services have not

been performed. The Company's actual contractual obligations will vary depending upon several factors, including the progress and results of the underlying services.

The Company has entered into estimated purchase obligations which in total range from $11.0 million to $11.7 million and include signed orders for capital equipment.

**NOTE 11 — STOCK-BASED COMPENSATION**

Stock-based compensation expense, which consists of the compensation cost for employee stock options and the value of options issued to non-employees for services rendered, was allocated to research and development and general and administrative in the consolidated statements of operations as follows (in thousands):

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Research and development | $ 2,268 | $ 1,128 |
| General and administrative | 1,798 | 1,064 |
| Total stock-based compensation | $ 4,066 | $ 2,192 |

At March 31, 2021, the total unrecognized compensation cost related to unvested stock-based awards granted to employees under the Company's equity incentive plans was approximately $51.3 million. This cost will be recorded as compensation expense on a ratable basis over the remaining weighted average requisite service period of approximately 2.92 years.

***Valuation Assumptions***

The Company estimated the fair value of stock options granted using the Black-Scholes option-pricing formula and a single option award approach. This fair value is being amortized ratably over the requisite service periods of the awards, which is generally the vesting period.

The fair value of employee stock options was estimated using the following weighted-average assumptions:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2021 | 2020 |
| Employee Stock Options: | | |
| Risk-free interest rate | 0.87 % | 1.83 % |
| Expected term (in years) | 6.08 | 6.08 |
| Dividend yield | — | — |
| Volatility | 113.12 % | 110.00 % |
| Weighted-average fair value of stock options granted | $ 11.62 | $ 12.13 |

***Equity Incentive Plans***

These plans consist of the 2018 Equity Incentive Plan, the 2014 Equity Incentive Plan, as amended; the 2004 Amended and Restated Equity Incentive Plan; and the Amended and Restated 2004 Employee Stock Purchase Plan. As of May 31, 2018, the 2014 Equity Incentive Plan; and the 2004 Equity Incentive Plan were terminated, and no further shares will be granted from those plans.

The following table summarizes stock option activity under the Company's equity incentive plans:

| | Outstanding Options Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term | Aggregate Intrinsic Value (in millions): |
|---|---|---|---|---|
| Balances, December 31, 2019 | 4,763,062 | $ 6.36 | 8.10 | $ 36.63 |
| Granted | 2,453,506 | $ 14.06 | | |
| Exercised | (261,260) | $ 3.99 | | |
| Cancelled | (257,381) | $ 9.99 | | |
| Balances, December 31, 2020 | 6,697,927 | $ 9.13 | 7.76 | $ 13.79 |
| Granted | 2,280,918 | $ 13.82 | | |
| Exercised | (98,373) | $ 6.07 | | |
| Cancelled | (130,757) | $ 12.30 | | |
| Balances, March 31, 2021 | 8,749,715 | $ 10.34 | 7.80 | $ 27.09 |
| | | | | |
| Vested and expected to vest, March 31, 2021 | 8,749,715 | $ 10.34 | 7.80 | $ 27.09 |
| Exercisable at March 31, 2021 | 3,366,145 | $ 7.59 | 6.56 | $ 18.12 |

The total intrinsic value of stock options exercised during the three months ended March 31, 2021 and 2020, was $0.6 million and $1.3 million, respectively, as determined at the date of the option exercise.

Cash received from stock option exercises was $0.6 million and $0.3 million for the three months ended March 31, 2021 and 2020, respectively. The Company issues new shares of common stock upon exercise of options. In connection with these exercises, there was no tax benefit realized by the Company due to the Company's current loss position.

**NOTE 12 – IN-PROCESS RESEARCH AND DEVELOPMENT**

In December 2020, the Company completed the sale of Evofosfamide which was previously classified as In-process research and development - held for sale. In connection with sale, the Company recorded a loss on assets held for sale of $2.0 million which was the difference between the carrying value and the consideration received.

**NOTE 13 – STOCKHOLDERS' EQUITY**

In February 2021, the Company, completed a public offering of 6.0 million shares of common stock at an offering price of $12.65 per share. The approximately net proceeds to the Company were $71.1 million, after deducting underwriting discounts, commissions and other estimated offering expenses paid by the Company.

**NOTE 14 – SUBSEQUENT EVENTS**

On April 1, 2021, the Company received notice from Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda"), that Takeda had decided to terminate the Takeda Development and License Agreement. The termination of the Collaboration Agreement will be effective 90 days following the notice of termination. Following receipt of the termination notice from Takeda, the Company notified Takeda of its intent to assume full rights to TAK-169, including clinical development, pursuant to the termination provisions of the Takeda Development and License Agreement. Upon transfer of the full TAK-169 rights to the Company, per the terms of the Takeda Development and License Agreement, the Company will owe Takeda low-single digit royalties on future net sales of TAK-169. The Company will adjust for the co-share payment which was originally expected to be $10.2 million during the final true-up of expenses with Takeda.

On April 5, 2021, the Company announced its decision to discontinue the development of MT-3724. The Company has agreements with CROs and other external service providers for services in connection with the clinical trials and development of MT-3724. The Company will continue to accrue expenses related to these services as the Company closes the program, based upon invoicing from these third parties and the status of each agreement. The Company does not anticipate any material costs relating to the wrap up of development of MT-3724.

Pursuant to the terms of the K2 Loan and Security Agreement, the Company provided notice to K2 HealthVentures LLC of its intent to draw the second tranche of $20.0 million, with such amount anticipated to be funded on or about May 15, 2021.

## ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the unaudited financial information and the notes thereto included in this Quarterly Report on Form 10-Q and the audited financial information and the notes thereto included in the Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 19, 2021.*

*Certain matters discussed in this Quarterly Report on Form 10-Q may be deemed to be forward-looking statements that involve risks and uncertainties. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. In this Quarterly Report on Form 10-Q, words such as "may," "will," "anticipate," "estimate," "expects," "projects," "intends," "plans," "believes" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements.*

*Our actual results and the timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Quarterly Report. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report, they may not be predictive of results or developments in future periods.*

*The following information and any forward-looking statements should be considered in light of factors discussed elsewhere in this Quarterly Report on Form 10-Q and under "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2020.*

*We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they are made. We disclaim any obligation, except as specifically required by law and the rules of the SEC, to publicly update or revise any such statements to reflect any change in our expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.*

*You should read the following discussion and analysis of financial condition and results of operations together with Part I, Item 1, "Financial Statements," which includes our financial statements and related notes, elsewhere in this Quarterly Report on Form 10-Q. In preparing this Management's Discussion and Analysis of Financial Condition and Results of Operations, we presume that readers have access to and have read the Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K, pursuant to Instruction 2 to paragraph (b) of Item 303 of Regulation S-K.*

### Overview

Molecular Templates is a clinical-stage biopharmaceutical company focused on the discovery and development of targeted biologic therapeutics. Our proprietary drug platform technology, known as engineered toxin bodies, or ETBs, leverages the resident biology of a genetically engineered form of Shiga-like Toxin A subunit, or SLTA to create novel therapies with potent and differentiated mechanisms of action for cancer and other serious diseases.

### Business

ETBs use a genetically engineered version of the SLTA. In its wild-type form, Shiga-like Toxin or "SLT" is thought to induce its own entry into a cell when proximal to the cell surface membrane, self-route to the cytosol, and enzymatically and irreversibly shut down protein synthesis via ribosome inactivation. SLTA is normally coupled to its cognate Shiga-like Toxin B subunit, or SLTB, to target the CD77 cell surface marker, a non-internalizing glycosphingolipid. In our scaffold, a genetically engineered SLTA with no cognate SLTB component is genetically fused to antibody domains or fragments specific to a target, resulting in a biologic therapeutic that can identify the particular target and specifically kill the cell. The antibody domains may be substituted with other antibody domains having different specificities to allow for the rapid development of new drugs to selected targets in cancer and other serious diseases.

ETBs combine the specificity of an antibody with SLTA's potent mechanism of cell destruction. Based on the disease setting, we have created ETBs that have reduced immunogenicity and are capable of delivering additional payloads into a target cell. Immunogenicity is the ability of a foreign substance to provoke an immune response in a host. ETBs have relatively predictable pharmacokinetic, or PK, and absorption, distribution, metabolism and excretion, or ADME, profiles and can be rapidly screened for desired activity in robust cell-based and animal-model assays. Because SLTA can induce internalization against non- and poorly-internalizing receptors, the universe of targets for ETBs should be substantially larger than that seen with antibody drug conjugates, or ADCs, which are not likely to be effective if the target does not readily internalize the ADC payload.

ETBs have a differentiated mechanism of cell kill in cancer therapeutics (the inhibition of protein synthesis via ribosome destruction), and we have preclinical and clinical data demonstrating the utility of these molecules in chemotherapy-refractory cancers. ETBs have shown good tolerability in multiple animal models as well as a generally favorable tolerability profile in our clinical studies to date. We believe the target specificity of ETBs, their ability to self-internalize, their potent and differentiated mechanism of cell kill and their tolerability profile provide opportunities for the clinical development of these agents to address multiple cancer types.

Our initial approach to drug development in oncology involves the selection of lead compounds to validated targets in cancer. We have developed ETBs for various targets, including CD38, HER2, and PD-L1. HER2 is clinically validated as a target for the treatment of solid tumors including breast and gastric cancer. CD38 has been validated as a meaningful clinical target in the treatment of multiple myeloma. PD-L1 is central to immune checkpoint pathways and is a target expressed in a variety of solid tumor cancers.

We filed an IND for MT-5111, our ETB targeting HER2, in March 2019 and the IND was accepted in April 2019. We began dosing study subjects in a Phase I study of MT-5111 for the treatment of HER2-positive cancers in the fourth quarter of 2019. The ongoing Phase I study has two parts: Part 1 is dose escalation and Part 2 is dose expansion, which will begin when a maximum tolerated dose (MTD) or Recommended Phase II Dose (RP2D) is established in Part 1. We provided an update on this study in December 2020. All of the following information on the Phase I study for MT-5111 was as of that update. 16 subjects, with a median of 4 prior lines of therapy and a median of 2 prior HER2-targeting regimens, have been treated with MT-5111; subjects with breast cancer received a median of 6 prior lines of therapy, 4 of which contained HER2-targeting agents (metastatic breast cancer n=6, metastatic biliary tract carcinoma n=6, metastatic pancreatic cancer n=2, and one each of metastatic colon adenocarcinoma and metastatic gastroesophageal junction adenocarcinoma). Five cohorts (0.5, 1.0, 2.0, 3.0, and 4.5 μg/kg/week) have been successfully completed and the sixth cohort (6.75 μg/kg) has been initiated. Pharmacokinetic (PK) data confirm the predicted human PK based on non-human primate studies. PK modeling has suggested that doses equal to or greater than 5.0 μg/kg are likely needed for efficacy. Thus far, no dose limiting toxicities (DLTs) have been observed in any cohort and MT-5111 appears to be well tolerated, with no cardiotoxicity observed to date (cardiotoxicity is a known potential toxicity for HER2 targeted therapies). To date, we have observed no cases of CLS (any grade) in human subjects who have been dosed with MT-5111.

As of our December 2020 update, no cardiac AEs or abnormalities in cardiac biomarkers have been noted thus far. The most commonly reported AEs that may be causally related among the 4 dosing cohorts to date and for which source-verified data were available include the following: fatigue (n=3), AST increased (n=2) at 0.5 μg/kg and 1 μg/kg, and chills (n=2). These most commonly reported AEs were all of grade 1 or 2 severity. No cases of capillary leak syndrome (any grade) were observed. One subject with metastatic breast cancer in cohort 2 (1 μg/kg) remained on treatment for 10 cycles with stable disease; although she had unmeasurable disease by RECIST criteria, she had three sub-centimeter hepatic lesions that disappeared at the end of cycle 8 before she discontinued at cycle 10. This subject had received three prior HER-2 targeting regimens which initially included pertuzumab plus trastuzumab followed by trastuzumab and T-DM1 as monotherapies. To date, 17 subjects have discontinued for disease progression and one subject is too early to evaluate. Cohort 6 (6.75 μg/kg/dose) is open for enrollment with cohort 7 (10 μg/kg) expected to open in the second quarter of 2021. The HER2-positive breast cancer expansion cohort is planned to begin in the third quarter of 2021 at a dose of 10 μg/kg (anticipated to be a therapeutic dose level), pending adequate safety data. Dose escalation will continue to determine the recommended Phase II dose while the breast cancer expansion cohort collects efficacy and safety data.

We are encouraged by the safety profile to date in these heavily pretreated subjects and believe the study has reached clinically active dose levels. We expect to present interim clinical results from the dose escalation portion of the Phase I study as of December 2020 in the second quarter of 2021. MTEM expects to provide an update on additional data from both the dose escalation portion of the study and the HER2-positive breast cancer expansion cohort in the fourth quarter of 2021.

Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Ltd. (“Takeda”) filed an IND for TAK-169, our jointly discovered ETB targeting CD38, in May 2019 and the IND was accepted in June 2019. Phase I dosing for TAK-169 began in the first quarter of 2020, had been paused in March 2020 due to the COVID-19 pandemic and was re-initiated in the fourth quarter of 2020.

In April 2021, we received notice from Takeda that Takeda had decided to terminate the Development Collaboration and Exclusive License Agreement by and between the Company and Takeda, dated September 18, 2018, as amended (the “Collaboration Agreement”) to co-develop one or more products incorporating or comprised of one or more SLT-A fusion proteins targeting CD38 for the treatment of patients with diseases such as multiple myeloma. The termination of the Collaboration Agreement will be effective 90 days following the notice of termination. Following receipt of the termination notice from Takeda, we notified Takeda of our intent to assume full rights to TAK-169, by entering into an agreement for such rights pursuant to the termination provisions of the Collaboration Agreement.

TAK-169 is in an ongoing Phase 1 study with dose escalation planned through six dose cohorts, in which the first subject was dosed in February 2020. To date, Takeda has enrolled and treated four subjects in the Phase 1 study. There have been no life-threatening toxicities, and no signs of capillary leak syndrome (CLS). The maximum tolerated dose (MTD) has not been reached, patient screening continues, and dose escalation is ongoing. One dose limiting toxicity (grade 2 myocarditis) was assessed in one subject. A mild elevation in Troponin I was noted in this subject after the third dose of TAK-169. No EKG or echocardiographic abnormalities and no clinical symptoms were noted. A stable elevation in high-sensitivity troponin was seen although no comparison

to baseline was available as baseline levels were not required per protocol at the time. An independent radiologist and cardiologist reviewed a cardiac MRI of this subject and concluded that there was weak to intermediate evidence of myocarditis, as assessed by a local cardiologist. The subject's asymptomatic myocarditis was considered resolved in approximately one week. The subject had multiple pre-existing cardiac risk factors. No other cardiac adverse events were observed in any other subject. Pharmacokinetic and pharmacodynamic data of this first cohort have been in-line with predicted outcomes.

We filed an IND for MT-6402, our ETB targeting PD-L1, in December 2020 and the IND was accepted in January 2021. A Phase 1 study of MT-6402 in PD-1/PD-L1 antibody relapsed/refractory patients is expected to be initiated in the second quarter of 2021. We anticipate initiating a Phase 1 with our ETB targeting CTLA-4 in 2022. Several other of our wholly owned ETB candidates are in preclinical development against targets including CD20, SLAMF-7, CD45, and TROP2.

In April 2021, we announced that we had decided to discontinue development of MT-3724 to focus our resources on the development of next-generation ETBs. As previously disclosed, MT-3724 was placed on partial clinical hold by the U.S. Food and Drug Administration (FDA) following a treatment-related fatality in one subject who experienced Grade 5 CLS in the Phase 2 MT-3724 monotherapy study. Markedly high pharmacokinetic assay readings were observed in this and other subjects treated with a specific lot of MT-3724 material. Apart from this one subject, no life-threatening CLS events were observed in any subject treated with MT-3724 at any dose tested and no instances of CLS of Grade 2 or higher were observed with monotherapy treatment at doses of 50 mcg/kg or lower from any other lot of MT-3724 material. The FDA placed MT-3724 on a full clinical hold in late March 2021 and requested additional information and the development of a new quantitative assay specific to MT-3724, which would take significant time and investment away from our other priorities. At such time, we had already discontinued dosing in all MT-3724 studies, as previously disclosed. Based on the foregoing, we decided to discontinue development of MT-3724 to focus our resources on the development of next-generation ETBs.

Our trials and plans for our other ETB product candidates, including MT-5111, TAK-169, and MT-6402, which utilize next-generation ETB technology, are not affected by the discontinuation of MT-3724. Next-generation ETB scaffolds have been designed to reduce or eliminate the propensity for innate immunity, including CLS. To date, we have observed no cases of CLS (any grade) in human subjects who have been dosed with MT-5111 or TAK-169. We do not yet have clinical data with MT-6402 as dosing in the Phase I study of MT-6402 is expected to be initiated in the second quarter of 2021.

We have built up multiple core competencies around the creation and development of ETBs. We developed the ETB technology in-house and continue to make iterative improvements in the scaffold and identify new uses of the technology. We also developed the proprietary process for manufacturing ETBs under Current Good Manufacturing Process, or cGMP regulatory standards and continue to make improvements to its manufacturing processes.

We have conducted multiple cGMP manufacturing runs with our compounds and believe this process is robust and could support commercial production with gross margins that are similar to those seen with antibodies.

**Impact of COVID-19**

In March 2020, the outbreak of COVID-19 caused by a novel strain of the coronavirus was recognized as a pandemic by the World Health Organization. It has impacted, and is continuing to impact, all aspects of society, including the operation of the healthcare system and other business and economic activity worldwide. The COVID-19 pandemic, and other similar outbreaks of contagious diseases, may adversely impact our business, financial condition, and results of operations. For example, we and the third-party clinical trial sites or investigators involved in our current and future clinical trials may experience significant interruptions or delays as a result of this pandemic, and these could impact the conduct of our clinical trials and our ability to complete them in a timely manner or at all, which in turn could delay and/or negatively impact the regulatory review and approval of our drug or biologic candidates.

We are carefully and continually evaluating the potential individual patient risk associated with continuing to enroll in our existing clinical studies during the ongoing COVID-19 pandemic, in accordance with FDA and foreign regulatory authorities' recommendations for clinical trials. Our Phase 1 studies for MT-5111 and TAK-169 are open and able to treat enrolled subjects and screen new subjects. Additionally, we expect to initiate the Phase 1 study of MT-6402 in the second quarter of 2021.

The decision to continue our ongoing studies throughout the COVID-19 pandemic was predicated on the treating investigator determining that the potential benefit to the patient of investigational therapy outweighs the potential risk of contracting COVID-19 as the subjects enrolled in our trials had relapsed or refractory incurable malignancies with few or no standard-of-care therapeutic options and limited life expectancy.

Overall, COVID-19 led to a significant slowdown in the pace of site initiations and patient enrollment into our clinical trials. The degree of disruption was, and continues to be, variable by geography and individual clinical site, with some sites closed to new enrollment, some screening and enrolling only subjects with an urgent need for treatment, and some attempting to operate as usual. The COVID-19 pandemic resulted in a significant slowdown in the pace of site initiations and patient enrollment across the TAK-169 program, which had a temporary pause in the activation of new study sites and new patient enrollment (along with most of Takeda's other early-stage studies) due to COVID-19 and was reinitiated in the fourth quarter of 2020. To date, screening and

enrollment for the MT-5111 Phase I study, which remained open throughout the pandemic, has been less adversely affected than the TAK-169 studies were during 2020. To date, we have been able to continue to work at our cGMP manufacturing facility and laboratories without significant interruption from COVID-19. As a result, manufacturing of product supply for clinical trials and research activities to support advancement of our preclinical pipeline (including partnered programs) have not been adversely affected by COVID-19 to date.

The extent to which the COVID-19 pandemic may impact our business, financial condition and results of operations will depend on the manner in which this pandemic continues to evolve and future developments in response thereto, which are highly uncertain and cannot be predicted with confidence and which may include, among other things, the ultimate severity and duration of this pandemic; governmental, business or other actions that have been, or will be, taken in response to this pandemic, including restrictions on travel and mobility, business closures and imposition of social distancing measures; impacts of the pandemic on the vendors or distribution channels in our or our partners' supply chain and ability to continue to manufacture our investigational products; impacts of the pandemic on the conduct of our clinical trials, including with respect to enrollment rates, availability of investigators and clinical trial sites or monitoring of data; and impacts of the pandemic on the regulatory agencies with which we interact in the development, review, approval and commercialization of our therapeutic products.

**Collaboration Agreements**

***Takeda Pharmaceuticals***

*Takeda Development and License Agreement*

On September 18, 2018, we entered into a development collaboration and exclusive license agreement (the "Takeda Development and License Agreement") with Takeda for the development and commercialization of products incorporating or comprised of one or more CD38 SLT-A fusion proteins ("Licensed Products") for the treatment of patients with diseases such as multiple myeloma.

Pursuant to the Takeda Development and License Agreement, we initially co-developed with Takeda one or more of the Licensed Products up to and including Phase Ia clinical trials, with us having an option to continue to co-develop the Licensed Products following Phase Ia clinical trials. Pursuant to the terms of the Takeda Development and License Agreement, Takeda was to be responsible for all regulatory activities and commercialization of the Licensed Products. We granted Takeda specified intellectual property licenses to enable Takeda to perform its obligations and exercise its rights under the Takeda Development and License Agreement, including exclusive license grants to enable Takeda to conduct development, manufacturing, and commercialization activities pursuant to the terms of the Takeda Development and License Agreement.

The Takeda Development and License Agreement had a total transaction price of $29.8 million, which consisted of (1) the $30.0 million upfront payment, (2) a $10.0 million development milestone payment which was achieved in the first quarter of 2020, (3) minus $10.2 million which was the expected co-share payments payable to Takeda during Early-Stage Development.

In July 2019, we exercised our co-development option and the agreed upon collaboration budget was increased to cover additional research and development activities.

In April 2021, we received notice from Takeda that Takeda decided to terminate the Takeda Development and License Agreement. The termination of the Takeda Development and License Agreement will be effective 90 days following the notice of termination. Following receipt of the termination notice from Takeda, we notified Takeda of our intent to assume full rights to TAK-169, a second-generation ETB targeting CD38, by entering into an agreement for such rights pursuant to the termination provisions of the Takeda Development and License Agreement.

*Takeda Multi-Target Agreement*

In June 2017, we entered into a Multi-Target Collaboration and License Agreement with Takeda ("Takeda Multi-Target Agreement") in which we agreed to collaborate with Takeda to identify and generate ETBs, against two targets designated by Takeda. Takeda designated certain targets of interest as the focus of the research. Each party granted to the other nonexclusive rights in its intellectual property for purposes of the conduct of the research, and we agreed to work exclusively with Takeda with respect to the designated targets.

Under the Takeda Multi-Target Agreement, Takeda has an option during an option period to obtain an exclusive license under our intellectual property to develop, manufacture, commercialize and otherwise exploit ETBs against the designated targets. The option period for each target ends three months after the completion of the evaluation of such designated target.

We received an upfront fee of $1.0 million and an additional $2.0 million following the designation of each of the two targets in December 2017. As of March 31, 2021, we have received $5.0 million from Takeda pursuant to the Takeda Multi-Target Agreement.

We may also receive an additional $30.0 million in aggregate through the exercise of the option to license ETBs. Additionally, we might also be entitled to receive clinical development milestone payments of up to approximately $397.0 million, for achievement of

development milestones and regulatory approval of collaboration products under the Takeda Multi-Target Agreement. Wemight also be entitled to receive commercial milestone payments of up to $150.0 million, for achievement of pre-specified sales milestones related to net sales of all collaboration products under the Takeda Multi-Target Agreement. We are also entitled to tiered royalty payments of a mid-single to low-double digit percentage of net sales of any licensed ETBs, subject to certain reductions. Finally, we are entitled to receive up to $10.0 million in certain contingency fees.

The Takeda Multi-Target Agreement will expire on the expiration of the option period (within three months after the completion of the evaluation of each designated target) for the designated targets if Takeda does not exercise its options, or, following exercise of the option, on the later of the expiration of patent rights claiming the licensed ETB or ten years from first commercial sale of a licensed ETB. The Takeda Multi-Target Agreement might be sooner terminated by Takeda for convenience or upon a change of control in our ownership, or by either party for an uncured material breach of the agreement.

***Vertex Pharmaceuticals***

On November 18, 2019, we entered into a Master Collaboration Agreement ("Vertex Collaboration Agreement") with Vertex Pharmaceuticals Incorporated ("Vertex"), in which we and Vertex agreed to enter into a strategic research collaboration to leverage our ETB technology platform to discover and develop novel targeted biologic therapies for applications outside of oncology.

Pursuant to the Vertex Collaboration Agreement, Vertex paid us an upfront payment of $38.0 million, consisting of $23.0 million in cash and a $15.0 million equity investment pursuant to a Share Purchase Agreement (the "SPA"), described further below. In addition to the upfront payments, we might also receive an additional $22.0 million through the exercise of the options to license ETB products or to add an additional target. We shall provide, and Vertex will reimburse us for, certain mutually agreed manufacturing technology transfer activities.

We might, for each target under the Vertex Collaboration Agreement, receive up to an additional $180.0 million in milestone payments upon the achievement of certain development and regulatory milestone events and up to an additional $70.0 million in milestone payments upon the achievement of certain sales milestone events. We will also be entitled to receive, subject to certain reductions, tiered mid-single digit royalties as percentages of calendar year net sales, if any, on any licensed product.

We will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise by Vertex of its option for a development candidate, Vertex will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate. In connection with the Vertex Collaboration Agreement, we and Vertex entered into the SPA pursuant to which Vertex purchased 1,666,666 shares of our common stock, par value $0.001 per share, at a price per share of $9.00. The issuance of these shares was pursuant to a private placement exemption from registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506 of Regulation D thereunder.

For more information concerning our collaboration agreements, refer to Note 3, "Research and Development Agreements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q.

***Bristol Myers Squibb Company***

On February 10, 2021, we entered into a Collaboration Agreement ("BMS Collaboration Agreement") with Bristol Myers Squibb Company ("Bristol Myers Squibb"), in which we and Bristol Myers Squibb agreed to enter into a strategic research collaboration to leverage our ETB technology platform to discover and develop novel products containing ETBs directed to multiple targets.

Pursuant to the BMS Collaboration Agreement, Bristol Myers Squibb paid us an upfront payment of $70.0 million. We may receive near term and development and regulatory milestone payments of up to an additional $874.5 million and will be eligible to receive up to an additional $450.0 million in milestone payments upon the achievement of certain sales milestone events. We will also be entitled to receive, subject to certain reductions, tiered royalties ranging from mid-single digits up to mid-teens as percentages of calendar year net sales, if any, on any licensed product.

We will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise of its option for a development candidate, Bristol Myers Squibb will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate, subject to the terms and conditions of the BMS Collaboration Agreement.

For more information concerning this collaboration agreement, refer to Note 3, "Research and Development Agreements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q.

**Grant Agreements**

**CPRIT Grant Contract**

In September 2018, we entered into a Cancer Research Grant Contract (the "CD38 CPRIT Agreement") with the Cancer Prevention and Research Institute of Texas ("CPRIT"), which was extended in May 2021, in connection with a grant of approximately $15.2 million awarded by CPRIT to us in November 2016 to fund research of a cancer therapy involving an ETB that is targeting CD38 (the "Award"). Pursuant to the CD38 CPRIT Agreement, we might also use such funds to develop a replacement CD38 targeting ETB, with or without a partner. The Award is contingent upon funds being available during the term of the CD38 CPRIT Agreement and subject to CPRIT's ability to perform its obligations under the CD38 CPRIT Agreement as well as our progress towards achievement of specified milestones, among other contractual requirements.

In 2011, we were awarded a $10.6 million product development grant from CPRIT for its CD20 targeting ETB MT-3724.This product development grant ended in November 2019.

Subject to the terms of the CD38 CPRIT Agreement, full ownership of any CPRIT funded technology and CPRIT funded intellectual property rights developed pursuant to the CD38 CPRIT Agreement will be retained by us, our Collaborators (as defined in the CD38 CPRIT Agreement) and, to the extent applicable, any participating third party (the "Project Results"). With respect to any Project Results, we agreed to grant to CPRIT a nonexclusive, irrevocable, royalty-free, perpetual, worldwide license, solely for academic, research and other non-commercial purposes, under the Project Results and to exploit any necessary additional intellectual property rights, subject to certain exclusions.

We will pay to CPRIT, during the term of the CD38 CPRIT Agreement, certain payments equal to a percentage of revenue ranging from the low- to mid-single digits. These payments will continue up to and until CPRIT receives an aggregate amount of 400% of the sum of all monies paid to us by CPRIT under the CD38 CPRIT Agreement. If we are required to obtain a license from a third party to sell any such product, the revenue sharing percentages might be reduced. In addition, once we pay CPRIT 400% of the monies the Company has received under the CD38 CPRIT Agreement, we will continue to pay CPRIT a revenue-sharing percentage of 0.5%.

The CD38 CPRIT Agreement will terminate, with certain obligations extending beyond termination, on the earlier of (a) November 30, 2021 or (b) the occurrence of any of the following events: (i) by mutual written consent of the parties, (ii) by CPRIT for an Event of Default (as defined in the CD38 CPRIT Agreement) by us, (iii) by CPRIT if allocated funds should become legally unavailable during the term of the CD38 CPRIT Agreement and CPRIT is unable to obtain additional funds or (iv) by us for convenience. CPRIT might approve a no cost extension for the CD38 CPRIT Agreement for a period not to exceed six months after the termination date if additional time is required to ensure adequate completion of the approved project, subject to the terms and conditions of the CD38 CPRIT Agreement.

For more information about our grant agreements, please see Note 3, "Research and Development Agreements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q

**Financial Operations Overview**

***Revenue***

To date, we have not generated any revenue from product sales to customers. We do not expect to receive any revenue from any ETB candidates that we or our collaboration partners develop, including MT-5111, TAK-169, MT-6402 and other pre-clinical ETB candidates, until we obtain regulatory approval and commercialize such biologics. Our revenue consists principally of collaboration revenue and grant revenue.

Research and Development revenue primarily relates to our collaboration agreements with Takeda, Vertex andBristol Myers Squibb which are accounted for using the percentage-of-completion cost-to-cost method.

Grant revenue relates to our CPRIT grant for a CD38 ETB (TAK-169). CPRIT grant funds for TAK-169 are provided to us in arrears as cost reimbursement where revenue is recognized as allowable costs are incurred. Revenue recognized in excess of amounts collected are recorded as unbilled revenue.

For more information about our revenue recognition policy, please see Note 1, "Organization and Summary of Significant Accounting Policies"to our audited consolidated financial statements for the year ended December 31, 2020, included in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC March 19, 2021.

***Research and Development Expenses***

Research and development expenses consist principally of:

- salaries for research and development staff and related expenses, including stock-based compensation expenses;
- costs for current good manufacturing practices, or cGMP, manufacturing of drug substances and drug products by contract manufacturers;
- fees and other costs paid to clinical trials sites and clinical research organizations, ("CROs"), in connection with the performance of clinical trials and preclinical testing;
- costs for consultants and contract research;
- costs of laboratory supplies and small equipment, including maintenance; and
- depreciation of long-lived assets.

Our research and development expenses may vary substantially from period to period based on the timing of our research and development activities, including the initiation and enrollment of subjects in clinical trials and manufacture of drug or biologic materials for clinical trials. We expect research and development expenses to increase as we advance the clinical development of MT-5111, TAK-169 and/or MT-6402 and further advance the research and development of our pre-clinical ETB candidates, and other earlier stage drugs or biologics. The successful development of our ETB candidates is highly uncertain. At this time, we cannot reasonably estimate the nature, timing and estimated costs of the efforts that will be necessary to complete the development of, or the period, if any, in which material net cash inflows may commence from any of our ETB candidates. This is due to numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the scope, rate of progress and expense of our research and development activities;
- clinical trials and early-stage results;
- the terms and timing of regulatory approvals; and
- the ability to market, commercialize and achieve market acceptance for MT-5111, TAK-169, MT-6402 or any other ETB candidate that we or our collaboration partners may develop in the future.

Any of these variables with respect to the development of MT-5111, TAK-169, or any other ETB candidate that we may develop could result in a significant change in the costs and timing associated with the development. For example, if the FDA the European Medicines Agency ("EMA") or other regulatory authority were to require us to conduct pre-clinical and clinical studies beyond those which we currently anticipate will be required for the completion of clinical development or if we experience significant delays in enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of our clinical development programs.

***General and Administrative Expenses***

Our general and administrative expenses consist principally of:

- salaries for employees other than research and development staff, including stock-based compensation expenses;
- professional fees for auditors and other consulting expenses related to general and administrative activities;
- professional fees for legal services related to the protection and maintenance of our intellectual property and regulatory compliance;
- cost of facilities, communication and office expenses;
- information technology services; and
- depreciation of long-lived assets.

We expect that our general and administrative costs will increase in the future as our business expands and we increase our headcount to support the expected growth in our operating activities. Additionally, we expect these expenses will also increase in the future as we incur additional costs associated with operating as a public company. These increases will likely include additional legal fees, accounting and audit fees, management board and supervisory board liability insurance premiums and costs related to investor relations. In addition, we expect to grant stock-based compensation awards to key management personnel and other employees.

***Other Income (Expense)***

Other income (expense) mainly includes interest income earned on our cash and marketable securities balances held, and interest expense on our outstanding borrowings.

**Results of Operations**

**Revenues**

The table below summarizes our revenues as follows (in thousands):

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2021 | 2020 | Change ($) | Change (%) |
| Research and development revenue, related party | $ 237 | $ 333 | $ (96) | -29% |
| Research and development revenue, other | 2,983 | 1,467 | 1,516 | 103% |
| Grant revenue | — | 2,341 | (2,341) | -100% |
| Total revenue | $ 3,220 | $ 4,141 | $ (921) | -22% |

***Research and Development Revenue – from related party***

The decrease in research and development revenue – from related parties for the three months ended March 31, 2021 was primarily due to research and development revenues that were recognized from the services provided under the Takeda Development and License Agreement (TAK-169) which was entered into in September 2018.

For more information about our collaboration agreements, please see Note 3 "Research and Development Agreements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q.

***Research and Development Revenue – other***

The increase in research and development revenue – other is a result of recognizing revenue associated with our Vertex Collaboration Agreement and BMS Collaboration Agreement. For more information about our collaboration agreements, please see Note 3 "Research and Development Agreements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q.

***Grant Revenue***

The decrease in grant revenue for the three months ended March 31, 2021 was primarily due to the Company not incurring additional expenses for the CD38 CPRIT Agreement grant during the quarter.

**Operating Expenses**

The table below summarizes our operating expenses as follows (in thousands):

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2021 | 2020 | Change ($) | Change (%) |
| Research and development expenses | $ 21,368 | $ 20,631 | $ 737 | 4% |
| General and administrative expenses | 8,181 | 5,647 | 2,534 | 45% |
| Total operating expenses | $ 29,549 | $ 26,278 | $ 3,271 | 12% |

***Research and Development Expenses***

The table below summarizes our research and development expenses as follows (in thousands):

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2021 | 2020 | Change ($) | Change (%) |
| Program costs | $ 7,312 | $ 10,192 | $ (2,880) | -28% |
| Employee compensation | 11,146 | 6,678 | 4,468 | 67% |
| Laboratory costs | 1,036 | 968 | 68 | 7% |
| Other research and development costs | 1,874 | 2,793 | (919) | -33% |
| Total research and development expenses | $ 21,368 | $ 20,631 | $ 737 | 4% |

Research and development ("R&D") expenses increased $0.7 million during the three months ended March 31, 2021 due to increased headcount partially offset by a decrease in program costs related to the discovery and development of ETBs.

Program costs decreased $2.9 million during the three months ended March 31, 2021 compared to the March 31, 2020. The programs driving the decrease were $3.1 million for MT-3724, $1.4 million for TAK-169, $0.9 million for MT-6402 and $0.5 other program costs. This was offset by increases of $1.3 million for CTLA-4, $1.3 million for NG CD-20 and $0.4 million for Vertex.

Headcount increased in R&D 41% from March 31, 2020 to March 31, 2021 in support of the ramp up of cGMP manufacturing facilities, collaboration research and additional support staff. This staffing increase resulted in an increase in employee compensation costs of $4.5 million for the three months ended March 31, 2021 compared to the March 31, 2020, respectively.

Other R&D costs decreased $0.9 during the three months ended March 31, 2021 compared to the three months ended March 31, 2020, respectively. This decrease was driven by lower consulting and recruiting fees.

***General and Administrative Expenses***

General and administrative expenses increased $2.5 million during the three months ended March 31, 2021 compared to the three months ended March 31, 2020. The main driver of this increase being payroll and related costs.

**Nonoperating activities**

The table below summarizes our nonoperating activities as follows (in thousands):

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2021 | 2020 | Change ($) | Change (%) |
| Interest and other income, net | $ 52 | $ 472 | $ (420) | -89% |
| Interest expense | (501) | (348) | (153) | 44% |
| Total nonoperating activities | $ (449) | $ 124 | $ (573) | -462% |

***Interest and Other Income and Interest Expense***

The decrease in interest and other income for the three months ended March 31, 2021, compared to the three months ended March 31, 2020, was primarily due to lower interest related to our marketable securities.

The increase in interest expense for the three months ended March 31, 2021, compared to the three months ended March 31, 2020, was primarily due to the interest in our debt holdings.

**Liquidity and Capital Resources**

***Sources of Funds***

We have devoted substantially all of our resources to developing our ETB candidates and platform technology, building our intellectual property portfolio, developing our supply chain, conducting business planning, raising capital and providing for general and administrative support for these operations. We plan to increase our research and development expenses for the foreseeable future as we continue to advance MT-5111, TAK-169, MT-6402 and our earlier-stage pre-clinical programs. At this time, due to the inherently unpredictable nature of preclinical and clinical development and given the early stage of our programs and drug or biologic candidates, we cannot reasonably estimate the costs we will incur and the timelines that will be required to complete development, obtain marketing approval and commercialize our drugs or biologics, if and when approved. For the same reasons, we are also unable to predict when, if ever, we will generate revenue from product sales or whether, or when, if ever, we may achieve profitability. Clinical and preclinical development timelines, the probability of success, and development costs can differ materially from expectations.

In addition, we cannot forecast which drugs or biologics, if and when approved, may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

We expect to incur substantial additional losses in the future as we expand our research and development cost-sharing activities with our collaboration partners, we believe such investment is strategically aligned with increasing the value of our technology. For the three months ended March 31, 2021 and 2020, we incurred net losses of $26.8 million and $22.0 million, respectively. At March 31, 2021, we had an accumulated deficit of $295.8 million.

To date, we have financed our operations through public offerings of common and preferred stock, private placements of equity securities, a reverse merger, and upfront and milestone payments received from our collaboration agreements, as well as funding from governmental bodies and bank and bridge loans.

In May 2020, we entered into a debt financing facility for up to $45.0 million with K2 HealthVentures, a healthcare-focused specialty finance company (the "K2 Loan and Security Agreement"). The K2 Loan and Security Agreement consists of three tranches, and we received the first tranche of $15.0 million upon closing, a portion of which was used to repay the remaining Perceptive Credit Facility. Two subsequent tranches totaling up to $30.0 million will become available at our option between March 1, 2021 and June 30, 2021, upon the achievement of certain clinical milestones with respect to the second tranche and, subject to lender consent and certain additional conditionsprior to December 31, 2021 with respect to the third tranche. The principal accrues interest at an annual rate of equal to the greater of 8.45% or the sum of the Prime Rate plus 5.2% and commenced on July 1, 2020. Payments are interest only until July 1, 2022, provided, however, that if no event of default has occurred and the second tranche has been fully funded payments will be interest only until July 1, 2023. Pursuant to the terms of the K2 Loan and Security Agreement, the Company provided notice to K2HealthVentures LLC of its intent to draw the second tranche of $20.0 million, with such amount anticipated to be funded on or about May 15, 2021.

In July 2020, we raised gross proceeds of approximately $50.0 million through at-the-market sales ("ATM") of our common stock pursuant to our ATM facility. We sold approximately 3.6 million shares of our common stock at a purchase price of $12.00 per share and 0.5 million shares at a purchase price of $12.70, in each case the market price at the time of sale. These sales constituted the full available dollar amount under our then-current ATM facility and, with such completion, this ATM facility has been terminated.

In August 2020, we filed a universal shelf registration statement on Form S-3 (Registration No. 333-242078) with the SEC, which was declared effective on August 17, 2020. In August 2020, we entered into a sales agreement (the "Sales Agreement') with Cowen and Company, LLC ("Cowen"), pursuant to which we may offer and sell to or through Cowen acting as agent and/or principal shares of our common stock having an aggregate offering price of up to $100,000,000. Under the Sales Agreement, Cowen may sell the shares by any method permitted by law and deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act. To date, we have not sold any shares under the Sales Agreement.

In February 2021, we completed a public offering of 6,000,000 shares of common stock at an offering price of $12.65 per share. We received net proceeds of approximately $71.1 million, after deducting underwriting discounts, commissions and estimated offering expenses payable by us.

We expect to incur significant expenses and operating losses for the foreseeable future as we advance our lead ETB candidates through clinical trials, progress our pipeline ETB candidates from discovery through pre-clinical development, and seek regulatory approval and pursue commercialization of our ETB candidates. In addition, if we obtain regulatory approval for any of our ETB candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. In addition, we may incur expenses in connection with the in-license or acquisition of additional technology to augment or enable development of future ETB candidates. Furthermore, we expect to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company.

As a result, we will need additional financing to support our continuing operations. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public or private equity and debt financings or other sources, which may include collaborations with third parties. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve profitability, and we may never do so.

At March 31, 2021 and December 31, 2020, we had cash, cash equivalents and marketable securities of $207.4 million and $93.9 million, respectively and grants revenue receivable of $0.0. We expect that our existing cash and cash equivalents will enable us to fund our operating expenses and capital expenditure requirements into the second half of 2023. We have based this estimate on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect.

***Cash Flows***

***Comparison of Three Months Ended March 31, 2021 and 2020***

The table below summarizes our cash flows for the three months ended March 31, 2021 and 2020.

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2021 | 2020 | Change ($) | Change (%) |
| Net cash provided by/(used in) operating activities | $ 42,214 | $ (18,149) | $ 60,363 | 333 % |
| Net cash used in investing activities | (40,387) | (32,951) | (7,436) | 23 % |
| Net cash provided by financing activities | 71,741 | 93 | 71,648 | 77,041 % |
| Net increase (decrease) in cash, cash equivalents and restricted cash | $ 73,568 | $ (51,007) | $ 124,575 | 244 % |

The increase in net cash used in operating activities for the three months ended March 31, 2021 was primarily due to an increase in deferred revenue primarily from BMS.

The increase in net cash used in investing activities for the three months ended March 31, 2021 was primarily due to increased investment activity in marketable securities.

The increase in net cash provided by financing activities was primarily due to proceeds from issuance of common stock.

***Operating and Capital Expenditure Requirements***

We have not achieved profitability since our inception and had an accumulated deficit of $295.8 million at March 31, 2021. We expect to continue to incur significant operating losses for the foreseeable future as we continue our research and development efforts and seek to obtain regulatory approval and commercialization of our ETB candidates.

We expect our expenses to increase substantially in connection with our ongoing development activities related to MT-5111, TAK-169 and MT-6402 collaboration with Vertex, collaboration with BMS, our pre-clinical programs, and expanding our operating capabilities. In addition, we expect to incur additional costs associated with operating as a public company. We anticipate that our expenses will increase substantially if and as we:

- support the ongoing Phase I study of MT-5111;
- continue to develop TAK-169 and support the ongoing Phase I study;
- support the PD-L1 program including the upcoming Phase I study for MT-6402;
- continue the research and development of our other ETB candidates, such as other CD20 targeted molecules, including completing pre-clinical studies and commencing clinical trials;
- research activities through the designation of the development candidate(s) with Vertex;
- research activities through the designation of the development candidate(s) with Bristol Myers Squibb;
- seek to enhance our technology platform using our antigen-seeding technology approach to immuno-oncology;
- seek regulatory approvals for any ETB candidates that successfully complete clinical trials;
- potentially establish a sales, marketing and distribution infrastructure and scale up manufacturing capabilities to commercialize any drugs for which we may obtain regulatory approval;
- add clinical, scientific, operational, financial and management information systems and personnel, including personnel to support our product development and potential future commercialization efforts and to support our increased operations;
- experience any delays or encounter any issues resulting from any of the above, including but not limited to failed studies, complex results, safety issues or other regulatory challenges;
- service long-term debt; and
- complete the expansion of the Company's research and development spaces.

Payments on the Perceptive Credit Facility commenced April 2018 and were interest only, paid quarterly for the first 24 months. Upon the second anniversary of the closing date of the Perceptive Credit Facility, principal payments of $0.2 million were due each calendar quarter. The Perceptive Credit Facility was paid off in May 2020, using proceeds from the K2 Loan and Security Agreement. See Note 8, "Borrowing Arrangements" to our unaudited consolidated financial statements for the three months ended March 31, 2021, included in this Quarterly Report on Form 10-Q for additional information regarding the Perceptive Credit Facility and the K2 Loan and Security Agreement.

Because of the numerous risks and uncertainties associated with the development of MT-5111, TAK-169 and MT-6402, collaborations with Vertex and Bristol Myers Squibb and our other pre-clinical programs, and because the extent to which we may enter into collaborations with third parties for development of these ETB candidates is unknown, we are unable to estimate the amount of increased capital outlays and operating expenses associated with completing the research and development of our ETB candidates. Our future capital requirements for MT-5111, TAK-169, MT-6402 or our other pre-clinical programs will depend on many factors, including:

- the progress, timing and completion of pre-clinical testing and clinical trials for our current or any future ETB candidates;
- the number of potential new ETB candidates we identify and decide to develop;
- the costs involved in growing our organization to the size needed to allow for the research, development and potential commercialization of our current or any future ETB candidates;
- the costs involved in filing patent applications and maintaining and enforcing patents or defending against claims or infringements raised by third parties;

- the time and costs involved in obtaining regulatory approval for our ETB candidates and any delays we may encounter as a result of evolving regulatory requirements or adverse results with respect to any of these ETB candidates;
- any licensing or milestone fees we might have to pay during future development of our current or any future ETB candidates;
- selling and marketing activities undertaken in connection with the anticipated commercialization of our current or any future ETB candidates and costs involved in the creation of an effective sales and marketing organization; and
- the amount of revenues, if any, we may derive either directly or in the form of royalty payments from future sales of our ETB candidates, if approved.

Identifying potential ETB candidates and conducting pre-clinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our ETB candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of drugs or biologics that we do not expect to be commercially available for many years, if ever. Accordingly, we will need to obtain substantial additional funds to achieve our business objectives.

Adequate additional funds may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, stockholders' ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect their rights as stockholders. Additional debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute stockholders' ownership interest.

If we raise additional funds through collaborations, governmental grants, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or ETB candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development programs or any future commercialization efforts or grant rights to develop and market ETB candidates that we would otherwise prefer to develop and market ourselves.

***Critical Accounting Policies and Use of Estimates***

Our discussion and analysis of our financial condition and results of operations are based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information. The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses based on historical experience and on various assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. For further information on our critical accounting policies, see the discussion of critical accounting policies in our Annual Report on Form 10-K for the year ended December 31, 2020, which we filed with the SEC on March 19, 2021.

***Recently Adopted Accounting Pronouncements***

For a discussion of recently adopted account pronouncements see the discussion in our Annual Report on Form 10-K for the year ended December 31, 2020, which we filed with the SEC on March 19, 2021.

***Recent Accounting Pronouncements Not Yet Adopted***

For a discussion of recently issued accounting pronouncements and interpretations not yet adopted by us, see Note 1, "Organization and Summary of Significant Accounting Policies", to our unaudited condensed financial statements for the March 31, 2021, included in this Quarterly Report on Form 10-Q.

***Off-Balance Sheet Arrangements***

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

## ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

## ITEM 4. CONTROLS AND PROCEDURES

***Evaluation of disclosure controls and procedures.***

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures at March 31, 2021. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to its management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures at March 31, 2021, our principal executive officer and principal financial officer concluded that the disclosure controls and procedures were effective as of such date.

***Changes in internal controls over financial reporting.***

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended March 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

From time to time, we are subject to various legal proceedings, claims and administrative proceedings that arise in the ordinary course of our business activities. Although the results of the litigation and claims cannot be predicted with certainty, as of the date of this report, we do not believe we are party to any claim, proceeding or litigation the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

### ITEM 1A. RISK FACTORS

*We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition or results of operations. The risks described below are not the only ones we face. Additional risks not presently known to us or other factors not perceived by us to present significant risks to our business at this time may also significantly impair our business operations. Our business could be harmed by any of these risks. Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all other information contained in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and the related notes, before making any decision to purchase our common stock. If any of the possible adverse events described below actually occurs, we may be unable to conduct our business as currently planned and our prospects, financial condition, operating results and cash flows could be materially harmed. In addition, the trading price of our common stock could decline due to the occurrence of any of the events described below, and you may lose all or part of your investment. In assessing these risks, you should refer to the other information contained in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and related notes.*

**Summary Risk Factors**

We are subject to a number of risks that if realized could affect our business, financial condition, results of operations and cash flows. As a clinical stage biopharmaceutical company, certain elements of risk are inherent to our business. Accordingly, we encounter risks as part of the normal course of our business. Some of the more significant challenges and risks include the following:

- Uncertainty regarding future revenue from product sales.
    - We are a clinical-stage biopharmaceutical company that currently generates no revenue from sales of any products and we may never be able to develop or commercialize a drug or biologic candidate. Even if we receive approval to market one or more products, we may never become profitable if we are unable to establish market acceptance, adequate market share or reimbursement from third-party payors. Additionally, if we receive approval, we expect our expenses to increase significantly in order to successfully launch such approved drug or biologic candidate and such increases may not be commercially feasible. Further, if we cannot generate revenue from the sale of any approved products, we may never become profitable.
- Clinical trial delays, adverse events, and/or clinical trial results may affect our business adversely.
    - Clinical development is expensive, time consuming and involves significant risk. If there is a failure of one or more of our clinical trials, at any stage of development, or if we experience serious adverse events, such failure may lead to additional costs to us or impair our ability to generate revenue. In addition, many of the factors, including the incidence of serious adverse events, that cause or lead to a delay in the commencement or completion of a clinical trial may also lead to the denial of marketing approval for our drug or biologic candidates, which would lead to material harm to our business.
- We rely on third parties to manage our clinical programs, manufacture our drug or biologic candidates and perform other services.
    - We rely on third-party vendors for key components of the development of our drug or biologic candidates, including the manufacturing, management of clinical trials and other critical services. If such third-party vendors fail to comply with applicable laws, regulations or guidelines or are unable to obtain the materials needed for the manufacture of our drug or biologic candidates, we may have a disruption in our clinical trials and potentially, commercial sale of a future approved product. While we completed the construction of our cGMP manufacturing facility and developed the capability to manufacture drug or biologic candidates for use in the conduct of our clinical trials, we may not be able to manufacture drug or biologic candidates or there may be substantial technical or logistical challenges to supporting manufacturing demand for drug or biologic candidates either by us or by our third-party manufacturers. Additionally, as we rely upon these vendors to perform release testing on our drug or biologic candidate prior to delivery to subjects in our clinical trials or patients being treated with our drug or biologic candidates, if approved in the future, such subjects or patients could be put at risk for serious harm and we may face damaging product liability suits.
- We are subject to substantial regulation.
    - As a biopharmaceutical company, we are subject to extensive regulation by government and regulatory agencies, such as the FDA and the EMA, among others. We may not receive the governmental approvals needed to market and commercialize our drug or biologic candidates, which could have a material adverse effect on our financial condition, operations and prospects. The FDA and comparable foreign regulatory authorities have limited experience with ETB products like our product candidates, which may increase the uncertainty surrounding as well as the expenses involved in the regulatory approval process for our drug or biologic candidates. Such delays, unexpected costs or failure to obtain regulatory approval to market our drug or biologic candidates could harm our ability to generate product revenue and our business, financial condition, results or operations and prospects may be harmed. Even if we obtain regulatory approval for a product, maintaining such compliance with regulatory requirements will result in additional expenses to us, which may be difficult to maintain.
- We are reliant on our intellectual property and are subject to the risk that we will not be able to protect our intellectual property rights.
    - We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect our intellectual property related to our technologies and drug or biologic candidates. Our commercial success depends on our ability to obtain, maintain and enforce patent and other intellectual property protections for our current and future technologies and drug or biologic candidates. If we are unable to do so, our business may be materially harmed, our ability to commercialize our drug or biologic candidates may be limited and our profitability may be delayed or may never occur.

- We depend on third party licensing or collaboration agreements.
    - Our business strategy, along with our short- and long-term operating results depend in part on our ability to execute on existing strategic collaborations, including those with Takeda, Vertex and Bristol Myers Squibb, and to license or partner with new strategic partners. As of March 31, 2021, our research and development revenue from our strategic collaborations was $3.2 million. If, disputes arise between us and our partners in such agreements, there may be increased costs due to related litigation or if we decide to fund such programs ourselves. Disputes with partners may lead to substantial delays or possible termination of such agreements or related clinical trials and the need to seek a new partner for the development or commercialization of such drug or biologic candidate. In addition, if commercialization collaboration partners do not commit sufficient resources to commercialize our future drugs or biologics, and if we are unable to develop the necessary marketing and sales capabilities on our own, we will be unable to generate sufficient product revenue to sustain or grow our business.
- We are subject to substantial competition.
    - We compete with large pharmaceutical companies that have access to significant capital and materially greater manufacturing, marketing, research and drug development resources. We also compete with specialty pharmaceutical companies and biotechnology companies, including but not limited to, Roche/Genentech, Bayer, Bristol Myers Squibb, Merck, Daiichi Sankyo, Astra Zeneca, Novartis and Pfizer, among others, as well as, universities and other research institutions worldwide that are developing drug, biological products and cell therapies for the same indications as us that could be more effective or less costly than our drug or biologic candidates, which may render our candidates obsolete and noncompetitive.
- We are vulnerable to disruptions and volatility in the financial markets.
    - We are reliant in part on the financial markets to finance our future capital needs through public equity offerings, debt financings and other funding arrangements. Disruptions and volatility in the financial markets can have a material adverse effect on our ability to access capital and liquidity on acceptable financial terms. Negative and fluctuating economic conditions may present challenges in us obtaining additional capital needed to fund our operations. If we do not obtain funding on a timely basis and on acceptable terms, we may need to delay or discontinue one or more of our programs or the commercialization of our drug or biologic candidates.
- We and others in our industry face cybersecurity risks.
    - We take protective measures and monitor and develop our systems continuously to protect our technology infrastructure and sensitive data, such as personally identifiable information about our employees and intellectual property, from cyberattacks. However, cybersecurity risks continue to increase for our industry, including for our third-party vendors, who may hold some of our data, and the proliferation of new technologies and the increased sophistication and activities of the actors behind such attacks present risks for compromised or lost data, which could result in substantial costs and harm to our reputation as well as delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce such data.

The above list is not exhaustive, and we face additional challenges and risks. Please carefully consider all of the information in this Form 10-Q including matters set forth in this “Risk Factors” section.

**Risks Related to Our Financial Condition and Capital Requirements**

***We have incurred losses since inception, have a limited operating history on which to assess our business, and anticipate that we will continue to incur significant losses for the foreseeable future.***

We are a clinical development-stage biopharmaceutical company with a limited operating history. We currently generate no revenue from sales of any products, and we may never be able to develop or commercialize a drug or biologic candidate. We have incurred net losses in each year since 2009, including net losses attributable to common shareholders of $26.8 million for the three months ended March 31, 2021. At March 31, 2021, we had an accumulated deficit of $295.8 million.

We have devoted substantially all of our financial resources to identify, acquire, and develop our drug or biologic candidates, including conducting clinical trials and providing general and administrative support for our operations. To date, we have financed our operations primarily through the sale of equity securities, debt financing and collaborations. The amount of our future net losses will depend, in part, on the rate of our future expenditures and our ability to obtain funding through equity or debt financings, strategic collaborations or grants. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We expect losses to increase as we complete Phase I development and advance into Phase II development of our lead drug or biologic candidates. We have not yet commenced pivotal clinical trials for any drug or biologic candidate and it may be several years, if ever, before we complete pivotal clinical trials and have a drug or biologic candidate approved for commercialization. We expect to invest significant funds into the research and development of our current drug or biologic candidates to determine the potential to advance these drug or biologic candidates to regulatory approval.

If we obtain regulatory approval to market one or more products, our future revenue will depend upon the size of any markets in which our drug or biologic candidates may receive approval, and our ability to achieve sufficient market acceptance, pricing, reimbursement from third-party payors and adequate market share for our drug or biologic candidates in those markets. Even if we obtain adequate market share for one or more products, because the potential markets in which our drug or biologic candidates may ultimately receive regulatory approval could be very small, we may never become profitable despite obtaining such market share and acceptance of our products.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future and our expenses will increase substantially if and as we:

- continue the clinical development of our drug or biologic candidates;
- continue efforts to discover or acquire via assignment or in-license new drug or biologic candidates;
- undertake the manufacturing of our drug or biologic candidates or increase volumes manufactured by third parties;
- advance our programs into larger, more expensive clinical trials;
- initiate additional preclinical, clinical, or other trials or studies for our drug or biologic candidates;
- seek regulatory and marketing approvals and reimbursement for our drug or biologic candidates;
- establish a sales, marketing, and distribution infrastructure to commercialize any products for which we may obtain marketing approval and market for ourselves;
- seek to identify, assess, acquire, and/or develop other drug or biologic candidates;
- make milestone, royalty or other payments under third-party license agreements;
- seek to maintain, protect, and expand our intellectual property portfolio;
- evaluate possible, or participate in actual, development partnerships with one or more third parties;
- seek to attract and retain skilled personnel; and
- experience any delays or encounter issues with the development and potential for regulatory approval of our clinical candidates such as safety issues, clinical trial accrual delays, longer follow-up for planned studies, additional major studies or supportive studies necessary to support marketing approval, or delays as a result of the COVID-19 pandemic.

Further, the net losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

We will continue to require substantial additional capital to continue our clinical development and potential commercialization activities. Accordingly, we will need to raise substantial additional capital to continue to fund our operations. The amount and timing of our future funding requirements will depend on many factors, including the pace and results of our clinical development efforts. Failure to raise capital as and when needed, on favorable terms or at all, would have a negative impact on our financial condition and our ability to develop our drug or biologic candidates.

***We expect that we will need substantial additional funding. If we are unable to raise capital when needed or to do so on terms that are favorable to us, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.***

Unless and until we can generate a substantial amount of revenue from our drug or biologic candidates, we expect to finance our future cash needs through public or private equity offerings, debt financings or collaborations, licensing arrangements and government funding arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. On August 7, 2020, we filed a universal shelf registration statement on Form S-3 (Registration No. 333-242078) with the SEC, which was declared effective on August 17, 2020. In August 2020, we entered into a sales agreement (the "Sales Agreement') with Cowen and Company, LLC ("Cowen"), pursuant to which we may offer and sell to or through Cowen acting as agent and/or principal shares of our common stock having an aggregate offering price of up to $100,000,000. Under the Sales Agreement, Cowen may sell the shares by any method permitted by law and deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act. To date, we have not sold any shares under the Sales Agreement.

Disruptions in the financial markets in general and more recently due to the COVID-19 pandemic have made equity and debt financing more difficult to obtain and may have a material adverse effect on our ability to meet our fundraising needs. To the extent that we raise additional capital through the sale of equity, convertible debt or other securities convertible into equity, the ownership interest of our stockholders will be diluted, and the terms of these new securities may include liquidation or other preferences that

adversely affect rights of our stockholders. Debt financing, if available at all, would likely involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, making additional product acquisitions or declaring or paying dividends. For instance, our loan and security agreement with K2 HealthVentures LLC limits additional indebtedness, liens, mergers and acquisitions, dispositions, investments and distributions, subordinated debt, transactions with affiliates and fundamental changes. If we raise additional funds through strategic collaborations or licensing arrangements with third parties, we may have to relinquish valuable rights to our drug or biologic candidates or future revenue streams or grant licenses on terms that are not favorable to us We cannot be assured that we will be able to obtain additional funding if and when necessary to fund our entire portfolio of drug or biologic candidates to meet our projected plans If we are unable to obtain funding on a timely basis, we may be required to delay or discontinue one or more of our development programs or the commercialization of any drug or biologic candidates or be unable to expand our operations or otherwise capitalize on potential business opportunities, which could materially harm our business, financial condition, and results of operations. In addition, securing additional financing would require a substantial amount of time and attention from our management and may divert a disproportionate amount of their attention away from day-to-day activities, which may adversely affect our management's ability to oversee the development of our drug, biologic candidates or programs.

We also have historically received, and may receive in the future, funds from state or federal government grants for research and development. The grants have been, and any future government grants and contracts we may receive may be, subject to the risks and contingencies set forth below under this section in the risk factor titled "*—Risks Related to the Development of Our Drug or Biologic Candidates—Reliance on government funding for our programs may add uncertainty to our research and commercialization efforts with respect to those programs that are tied to such funding and may impose requirements that limit our ability to take certain actions, increase the costs of commercialization and production of drug or biologic candidates developed under those programs and subject us to potential financial penalties, which could materially and adversely affect our business, financial condition and results of operations.*" Although we might apply for government contracts and grants in the future, we cannot assure that we will be successful in obtaining additional grants for any drug or biologic candidates or programs.

***Our ability to use our net operating losses to offset future taxable income, if any, may be subject to certain limitations.***

We currently have federal net operating loss carryforwards, which will begin to expire in 2024, if not utilized, and the remainder of which can be carried forward indefinitely. Tax loss carryforwards that were created prior to December 31, 2017 expire through 2037, all tax loss carryforwards created after that date do not expire. In the United States, utilization of the net operating loss carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), and similar state provisions due to ownership change limitations that have occurred previously or that could occur in the future. The merger, whereby we, formerly known as Threshold Pharmaceuticals, Inc., completed our business combination with Molecular Templates OpCo, Inc., or what was then known as "Molecular Templates, Inc." (the "Merger") resulted in an ownership change under Section 382 of the Code for us, and our pre-Merger NOL carryforwards and certain other tax attributes will be subject to limitation or elimination. The NOL carryforwards and certain other tax attributes of ours may also be subject to limitations as a result of future ownership changes. If we were to lose the benefits of these loss carryforwards, our future earnings and cash resources would be materially and adversely affected.We have incurred net losses since our inception, and we anticipate that we will continue to incur significant losses for the foreseeable future; thus, we do not know whether or when we will generate the U.S. federal taxable income necessary to utilize our NOLs.

***If we fail to maintain an effective system of internal controls in the future, we may not be able to accurately or timely report our financial condition or results of operations, which may adversely affect investor confidence in us and, as a result, the value of our common stock.***

In connection with the audit of our consolidated financial statements for the year ended December 31, 2019, we identified a material weakness in our internal controls over financial reporting related to our information technology general controls over systems that are relevant to our financial statements. The reported material weakness did not result in any adjustment to our financial statements or restatement of previously reported financial statements. A material weakness is a deficiency, or combination of deficiencies, in internal controls over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis. If our internal controls over financial reporting are found to be insufficient, our independent registered public accounting firm, which audits our financial statements, may issue an adverse opinion on the effectiveness of internal control over financial reporting. In the event that a material weakness is identified, we cannot assure you that we will be able to identify and implement measures that will be sufficient to remediate any such material weakness or that future material weaknesses will not occur.

If we fail to remediate an identified material weakness or identify new material weaknesses in our internal controls over financial reporting, investors may lack confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected regardless of whether material inaccuracies are determined to exist in our reported

financial statements. If material inaccuracies are determined to exist in our financial statements or we are unable to report our financial statements on a timely basis, we could also become subject to investigations by Nasdaq, the SEC, or other regulatory authorities, and become subject to litigation from investors and stockholders, which could harm our reputation and financial condition or divert financial and management resources from our regular business activities.

***Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our stock price.***

Section 404 of the Sarbanes-Oxley Act and the related rules and regulations of the SEC require annual management assessments of the effectiveness of our internal control over financial reporting. If we fail to maintain the adequacy of our internal control over financial reporting, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act and the related rules and regulations of the SEC. If we cannot favorably assess the effectiveness of our internal control over financial reporting, investor confidence in the reliability of our financial reports may be adversely affected, which could have a material adverse effect on our stock price.

***We have never generated any revenue from product sales and may never become profitable.***

We have no products approved for commercialization and have never generated any revenue. Our ability to generate revenue and achieve profitability depends on our ability, alone or with strategic collaboration partners, to successfully complete the development of, and obtain the regulatory and marketing approvals necessary to commercialize one or more of our drug or biologic candidates. We do not anticipate generating revenue from product sales for the foreseeable future. Our ability to generate future revenue from product sales depends heavily on our success in many areas, including but not limited to:

- completing research and development of one or more of our drug or biologic candidates;
- obtaining regulatory and marketing approvals for one or more of our drug or biologic candidates;
- manufacturing one or more drug or biologic candidates and establishing and maintaining supply and manufacturing relationships with third parties that are commercially feasible;
- marketing, launching and commercializing one or more drug or biologic candidates for which we obtain regulatory and marketing approval, either directly or with a collaborator or distributor;
- gaining market acceptance of one or more of our drug or biologic candidates as treatment options;
- meeting our supply needs in sufficient quantities to meet market demand for our drug or biologic candidates, if approved;
- addressing any competing products;
- protecting, maintaining and enforcing our intellectual property rights, including patents, trade secrets and know-how;
- negotiating favorable terms in any collaboration, licensing or other arrangements into which we may enter;
- obtaining reimbursement or pricing for one or more of our drug or biologic candidates that supports profitability;
- taking temporary precautionary measures to help minimize the risk of the COVID-19 pandemic to our employees; and
- attracting, hiring and retaining qualified personnel.

Even if one or more of the drug or biologic candidates that we develop is approved for commercial sale, we anticipate incurring significant costs associated with launching and commercializing any approved drug or biologic candidate. We also will have to develop or acquire manufacturing capabilities or continue to contract with contract manufacturing organizations (“CMOs”), in order to continue development and potential commercialization of our drug or biologic candidates. For instance, if our costs of manufacturing our drug products are not commercially feasible, then we will need to develop or procure our drug products in a commercially feasible manner to successfully commercialize any future approved product, if any. Additionally, if we are not able to generate revenue from the sale of any approved products, we may never become profitable.

***Changes in interpretation or application of U.S. GAAP may adversely affect our operating results.***

We prepare our condensed consolidated financial statements to conform to U.S. GAAP. These principles are subject to interpretation by the Financial Accounting Standards Board, or FASB, American Institute of Certified Public Accountants, the SEC and various other regulatory and accounting bodies. A change in interpretations of, or our application of, these principles can have a

significant effect on our reported results and may even affect our reporting of transactions completed before a change is announced. In addition, when we are required to adopt new accounting standards, our methods of accounting for certain items may change, which could cause our results of operations to fluctuate from period to period and make it more difficult to compare our financial results to prior periods.

**Risks Related to the Development of Our Drug or Biologic Candidates**

***Manufacturing difficulties, disruptions or delays could limit supply of our drug or biologic candidates and adversely affect our clinical trials.***

We currently have a current good manufacturing practices, or cGMP, manufacturing facility and we have developed the capability to manufacture drug or biologic candidates for use in the conduct of our clinical trials. We may not be able to manufacture drug or biologic candidates or there may be substantial technical or logistical challenges to supporting manufacturing demand for drug or biologic candidates. We may also fail to comply with cGMP requirements and standards which would require us to not utilize the manufacturing facility to make clinical trial supply.

We plan to rely in part on third-party manufacturers, and their responsibilities will include purchasing from third-party suppliers the materials necessary to produce our drug or biologic candidates for our clinical trials and future regulatory approval. We expect there to be a limited number of suppliers for some of the raw materials that we expect to use to manufacture our drug or biologic candidates, and we may not be able to identify alternative suppliers to prevent a possible disruption of the manufacture of our drug or biologic candidates for our clinical trials, and, if approved, ultimately for commercial sale.

Although we generally do not expect to begin a clinical trial unless we believe we have a sufficient supply of a drug or biologic candidate to complete the trial, any significant delay or discontinuity in the supply of a drug or biologic candidate, or the raw materials or other material components in the manufacture of the drug or biologic candidate, could delay completion of our clinical trials and potential timing for regulatory approval of our drug or biologic candidates, which would harm our business and results of operations. We do not yet have sufficient information to reliably estimate the cost of the commercial manufacturing of our drug or biologic candidates and our current costs to manufacture our drug products may not be commercially feasible, and the actual cost to manufacture our drug or biologic candidates could materially and adversely affect the commercial viability of our drug or biologic candidates. As a result, we may never be able to develop a commercially viable product.

In addition, as a drug or biologic candidate manufacturer with one manufacturing facility, we are exposed to the following additional risks:

- limited capacity of manufacturing facilities;
- contamination of drug or biologic candidates in the manufacturing process;
- events that affect, or have the potential to affect, general economic conditions, including but not limited to political unrest, global trade wars, natural disasters, acts of war, terrorism, or disease outbreaks (such as the global pandemic of COVID-19);
- labor disputes or shortages, including the effects of health emergencies, epidemics, pandemics, including the COVID-19 pandemic, or natural disasters;
- compliance with regulatory requirements;
- changes in forecasts of future demand;
- timing and actual number of production runs and production success rates and yields;
- contractual disputes with our suppliers and contract manufacturers;
- timing and outcome of product quality testing;
- power failures and/or other utility failures;
- breakdown, failure, substandard performance or improper installation or operation of equipment;
- following New Drug Application, or NDA, or Biologics License Application, or BLA, approval, a change in the manufacturing site could require additional approval from the FDA. This approval would require new testing and compliance inspections;
- we may be unable to timely formulate and manufacture our product or produce the quantity and quality required to meet our clinical and commercial needs, if any; and

- as a drug or biologic candidate manufacturer, we are subject to ongoing periodic unannounced inspection by the FDA and some state agencies to ensure strict compliance with cGMPs and other U.S. and corresponding foreign requirements, and we carry the risk of non-compliance with these regulations and standards.

For example, in December 2019, a novel strain of coronavirus was first identified in Wuhan, Hubei Province, China and the disease it causes (COVID-19) was declared to be a global pandemic by the World Health Organization in March 2020. The ongoing pandemic has caused financial, social and business disruptions throughout the world. Any outbreak of contagious diseases such as coronavirus, or other adverse public health developments, could have a material and adverse effect on our business operations. Such adverse effects could include disruptions or restrictions on the ability of our, our collaborators', or our suppliers' personnel to travel, and could result in temporary closures of our facilities or the facilities of our collaborators or suppliers. Any disruption to our operations or the operations of our collaborators or suppliers would likely impact our drug development efforts, operating results, and our financial condition. The extent to which the current coronavirus pandemic may impact our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus.

Each of these risks could delay our clinical trials, the marketing approval, if any, of our drug or biologic candidates, or the commercialization of our drug or biologic candidates or result in higher costs or deprive us of potential product revenue. In addition, we rely on third parties to perform release testing on our drug or biologic candidates prior to delivery to subjects in our clinical trials. If these tests are not appropriately conducted and test data are not reliable, subjects in our clinical trials, or patients treated with our products, if any are approved in the future, could be put at risk of serious harm, which could result in product liability suits.

***Clinical trials are costly, time consuming and inherently risky, and we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities, and may never obtain regulatory approval for, or successfully commercialize certain or any of our drug or biologic candidates.***

Clinical development is expensive, time consuming and involves significant risk. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of development. Events that may prevent successful or timely completion of clinical development include but are not limited to:

- continued delays in patient enrollment for our clinical trials due to COVID-19, which may affect ability to initiate and/or complete preclinical studies, conduct ongoing clinical trials, and delay initiation of planned and future clinical trials;
- inability to generate satisfactory preclinical, toxicology or other in vivo or in vitro data or to develop diagnostics capable of supporting the initiation or continuation of clinical trials;
- delays in reaching agreement on acceptable terms with clinical research organizations ("CROs"), and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- delays or failure in obtaining required IRB approval at each clinical trial site;
- failure to obtain or delays in obtaining a permit from regulatory authorities to conduct a clinical trial;
- delays in recruiting or failure to recruit sufficient eligible volunteers or subjects in our clinical trials;
- failure by clinical trial sites or CROs or other third parties to adhere to clinical trial requirements;
- failure by our clinical trial sites, CROs or other third parties to perform in accordance with the good clinical practices requirements of the FDA or applicable foreign regulatory guidelines;
- subjects withdrawing from our clinical trials;
- adverse events or other issues of concern significant enough for the FDA, or comparable foreign regulatory authority, to put a clinical trial or an IND on clinical hold;
- occurrence of adverse events associated with our drug or biologic candidates;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- the cost of clinical trials of our drug or biologic candidates;
- negative or inconclusive results from our clinical trials which may result in us deciding, or regulators requiring us, to conduct additional clinical trials or abandon development programs in other ongoing or planned indications for a drug or biologic candidate; and

- delays in reaching agreement on acceptable terms with third-party manufacturers or an inability to manufacturesufficient quantities of our drug or biologic candidates for use in clinical trials.

Any inability to successfully complete clinical development and obtain regulatory approval for one or more of our drug or biologic candidates could result in additional costs to us or impair our ability to generate revenue. In addition, if we make manufacturing or formulation changes to our drug or biologic candidates, we may need to conduct additional nonclinical studies and/or clinical trials to show that the results obtained from such new formulation are consistent with previous results. Clinical trial delays, including those caused by the COVID-19 pandemic, could also shorten any periods during which our drug or biologic candidates have patent protection and may allow competitors to develop and bring products to market before we do, which could impair our ability to successfully commercialize our drug or biologic candidates and may harm our business and results of operations.

Additionally, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of marketing approval for our drug or biologic candidates which would materially harm our business.

***The approach we are taking to discover and develop next generation immunotoxin therapies, also commonly known as engineered toxin bodies, or ETBs, is unproven and may never lead to marketable products.***

The scientific discoveries that form the basis for our efforts to discover and develop our drug or biologic candidates are relatively recent. To date, neither we nor any other company has received regulatory approval to market products utilizing ETBs. The scientific evidence to support the feasibility of developing drugs based on these discoveries is both preliminary and limited. Successful development of ETB therapeutic products by us will require addressing a number of issues, including identifying appropriate receptor targets, screening for and selecting potent and safe ETB drug or biologic candidates, developing a commercially feasible manufacturing process, successfully completing all required preclinical studies and clinical trials, successfully implementing all other requirements that may be mandated by regulatory agencies from clinical development through post-marketing periods, ensuring intellectual property protection in any territory where an ETB product may be commercialized and commercializing an ETB product successfully in a competitive product landscape. In addition, any drug or biologic candidates that we develop may not demonstrate in patients the biological or pharmacological properties ascribed to them in laboratory and preclinical testing, and they may interact with human biological systems in unforeseen, ineffective or even harmful ways. If we do not successfully develop and commercialize one or more drug or biologic candidates based upon this scientific approach, we may not become profitable and the value of our common stock may decline.

Further, our focus on ETB technology for developing drug or biologic candidates as opposed to multiple, more proven technologies for drug development increases the risk associated with our business. If we are not successful in developing an approved product using ETB technology, we may not be able to identify and successfully implement an alternative product development strategy. In addition, work by other companies pursuing similar immunotoxin technologies may encounter setbacks and difficulties that regulators and investors may attribute to our drug or biologic candidates, whether appropriate or not.

***We are heavily dependent on the success of our drug or biologic candidates, the most advanced of which is in the early stages of clinical development. Our ETB therapeutic drug or biologic candidates are based on a relatively novel technology, which makes it difficult to predict the time and cost of development and of subsequently obtaining regulatory approval, if at all. Some of our drug or biologic candidates have produced results in preclinical settings to date and we cannot give any assurance that we will generate data for any of our drug or biologic candidates sufficient to receive regulatory approval in our planned indications, which will be required before they can be commercialized. To date, no ETB products have been approved for marketing in the United States or elsewhere.***

We have concentrated our research and development efforts to date on a limited number of drug or biologic candidates based on our ETB therapeutic platform and identifying our initial targeted disease indications. We have invested substantially all of our efforts and financial resources to identify, acquire and develop our portfolio of drug or biologic candidates. Our future success is dependent on our ability to successfully further develop, obtain regulatory approval for, and commercialize one or more drug or biologic candidates. We currently generate no revenue from sales of any products, and we may never be able to develop or commercialize a drug or biologic candidate. Our ETB candidate, MT-5111, is currently being tested in a Phase I study, which began dosing patients in the fourth quarter of 2019. Our CD38-targeted SLT-A fusion protein, TAK-169, initially developed in collaboration with Takeda, is also being tested in a Phase I study, which began dosing patients in the first quarter of 2020 although it was paused in March due to COVID-19 and was re-initiated during the fourth quarter of 2020. We filed an IND for MT-6402, our ETB targeting PD-L1, in the fourth quarter of 2020, which was accepted by the FDA as of January 2021. We anticipate the initiation of a Phase 1 study of MT-6402 in PD-1/PD-L1 antibody relapsed/refractory patients in the second quarter of 2021. The remainder of our drug or biologic candidates are in preclinical development. There can be no assurance that we will not experience problems or delays in developing our drug or biologic candidates and that such problems or delays will not cause unanticipated costs, or that any such development

problems can be solved. Additionally, not all of our clinical and preclinical data to date have been validated and we have no way of knowing if after validation our clinical trial data will be complete and consistent. There can be no assurance that the data that we develop for our drug or biologic candidates in our planned indications will be sufficient to obtain regulatory approval.

None of our ETB drug or biologic candidates have advanced into a pivotal clinical trial for our proposed indications and it may be years before any such clinical trial is initiated and completed, if at all. We are not permitted to market or promote any of our drug or biologic candidates before we receive regulatory approval from the FDA or a comparable foreign regulatory authority, and we may never receive such regulatory approval for any of our drug or biologic candidates. We cannot be certain that any of our drug or biologic candidates will be successful in clinical trials or receive regulatory approval. Further, our drug or biologic candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our drug or biologic candidates, we may not be able to continue our operations.

Additionally, the FDA and comparable foreign regulatory authorities have relatively limited experience with ETB products. No regulatory authority has granted approval to any person or entity, including us, to market or commercialize ETB product candidates, which may increase the complexity, uncertainty and length of the regulatory approval process for our drug or biologic candidates. If our ETB product candidates fail to prove to be safe, effective or commercially viable, our drug or biologic candidate pipeline would have little, if any, value, which would have a material adverse effect on our business, financial condition or results of operations.

The clinical trial and manufacturing requirements of the FDA, the EMA, and other regulatory authorities, and the criteria these regulators use to determine the safety and efficacy of a drug or biologic candidate, vary substantially according to the type, complexity, novelty and intended use and market of the drug or biologic candidate. The regulatory approval process for novel drug or biologic candidates such as ETB product candidates could be more expensive and take longer than for others, better known or more extensively studied drug or biologic candidates. It is difficult to determine how long it will take or how much it will cost to obtain regulatory approvals for our drug or biologic candidates in either the United States or the European Union or elsewhere or how long it will take to commercialize our drug or biologic candidates, even if approved for marketing. Approvals by the EMA and other regulatory authorities may not be indicative of what the FDA may require for approval, and vice versa, and different or additional preclinical studies and clinical trials may be required to support regulatory approval in each respective jurisdiction. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a drug or biologic candidate to market could decrease our ability to generate sufficient product revenue, and our business, financial condition, results of operations and prospects may be harmed.

During the global response to the COVID-19 pandemic, moreover, the responses of the federal, international, state and regional governments to the pandemic, including the shelter in place orders, the allocation of healthcare resources to treating those infected with the virus, and the redeployment of FDA and EMA resources to priority projects, could have an impact on the timeline for review and approval of new marketing applications. Although the FDA communicated to industry in early 2021 that its new drug and biologic review programs were continuing to meet key performance goals related to communicating with applicants and approving new products, the agency also noted that the uncertainty of the COVID-19 situation may make it difficult to sustain its current level of performance indefinitely. The FDA has told industry that it intends to be as transparent as possible about its workload and performance metrics as the situation evolves.

***We may have difficulty enrolling, or fail to enroll patients, in our clinical trials given the limited number of patients who have the diseases for which our drug or biologic candidates are being studied, which could delay or prevent clinical trials of our drug or biologic candidates.***

Identifying and enrolling patients to participate in clinical trials of our ETB drug or biologic candidates is essential to our success. The timing of our clinical trials depends in part on the rate at which we can recruit patients to participate in clinical trials of our drug or biologic candidates, and we may experience delays in our clinical trials if we encounter difficulties in enrollment, particularly given the current COVID-19 pandemic.

The eligibility criteria of our planned clinical trials may further limit the available eligible trial participants as we require that patients have specific characteristics that we can measure or meet the criteria to assure their conditions are appropriate for inclusion in our clinical trials. We may not be able to identify, recruit and enroll a sufficient number of patients to complete our clinical trials in a timely manner because of the perceived risks and benefits of the drug or biologic candidate under study, the availability and efficacy of competing therapies and clinical trials, and the willingness of physicians to participate in our planned clinical trials. If patients are unwilling to participate in our clinical trials for any reason, the timeline for conducting trials and obtaining regulatory approval of our drug or biologic candidates may be delayed.

If we experience delays in the completion of, or termination of, any clinical trials of our drug or biologic candidates, the commercial prospects of our drug or biologic candidates could be harmed, and our ability to generate product revenue from any of these drug or biologic candidates could be delayed or prevented. In addition, any delays in completing our clinical trials would likely increase our overall costs, impair drug or biologic candidate development and jeopardize our ability to obtain regulatory approval relative to our current plans. Any of these occurrences may harm our business, financial condition, and prospects significantly.

***Our drug or biologic candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial viability of an approved label, or result in significant negative consequences following marketing approval, if any.***

Undesirable side effects caused by our drug or biologic candidates could cause us or regulatory authorities to interrupt, delay, or terminate clinical trials or result in a restrictive label or delay regulatory approval. In addition, our ETB product candidates have been studied in only a limited number of subjects. The identified adverse events considered to be important or potential risks of MT-5111 include, but are not limited to, cardiovascular injury, hepatotoxicity, acute kidney injury, myalgias, hematologic toxicity, infections, infusion-related reactions (IRR), reproductive risks, capillary leak syndrome (CLS) and cytokine release syndrome (CRS). The important or potential risks of MT-6402 include, but are not limited to, cardiovascular toxicity, hepatotoxicity, acute kidney injury, hematologic toxicity, coagulation and clinical chemistry toxicity, CRS, CLS, IRR, reproductive risks, and immune-related adverse reactions. The important or potential risks of TAK-169 include, but are not limited to, CRS, skeletal and cardiac muscular injury, CLS, IRR, and acute kidney injury.

In addition to the side effects that are known to be associated with MT-5111 and MT-6402, continued clinical trials could reveal higher incidence of side effects or adverse events, or AEs, previously unknown side effects, or side effects having greater severity, which could each or all lead to delays in our clinical programs or discontinuation of our trials. Regulatory authorities may suspend or terminate a clinical trial due to a number of factors, including, among other things, failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, study subject safety concerns, adverse effects or events, or severe adverse events including deaths, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions. For example, we have observed severe adverse events, including a single death, from and/or relating to CLS with our first-generation ETB, MT-3724, which led to the FDA placing clinical trials involving this product candidate on partial clinical hold. We discontinued the MT-3724 clinical studies to focus our resources on the development of our next-generation ETBs inApril 2021. The occurrence of these and other adverse side effects could jeopardize or preclude our ability to develop, obtain or maintain marketing approval for, or successfully commercialize, market and sell any or all of our product candidates for one or more indications. There is no guarantee that additional or more severe side effects will not be identified through ongoing clinical trials of our drug or biologic candidates for current and other indications. There can be no assurance that other patients treated with MT-5111 or MT-6402 will not experience CLS or other serious side effects and there can be no assurance that the FDA, EMA or comparable regulatory authorities in other jurisdictions will not place additional clinical holds on our current or future clinical trials, the result of which could delay or prevent us from obtaining regulatory approval for MT-5111 or other ETB product candidates.

Even if approved in the future, MT-5111 or MT-6402 may carry boxed warnings or other precautions regarding the risk of CLS. Undesirable side effects and negative results for any of our drug or biologic candidates may negatively impact the development and potential for approval of our drug or biologic candidates for their proposed indications.

Additionally, even if one or more of our drug or biologic candidates receives marketing approval, if we or others later identify undesirable side effects caused by such products, potentially significant negative consequences could result, including but not limited to:

- regulatory authorities may withdraw approvals of such products;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a Risk Evaluation and Mitigation Strategies, or REMS, plan, which could include a medication guide outlining the risks of such side effects for distribution to study subjects, a communication plan for healthcare providers, and/or other elements to assure safe use;
- we may be required to change the way such drug or biologic candidates are distributed or administered, or change the labeling of the drug or biologic candidates;
- we may be subject to regulatory investigations and government enforcement actions;
- the FDA or a comparable foreign regulatory authority may require us to conduct additional clinical trials or costly post-marketing testing and surveillance to monitor the safety and efficacy of the product;
- we may decide to recall such drug or biologic candidates from the marketplace after they are approved;
- we could be sued and held liable for harm caused to subjects; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of a drug or biologic candidate, even if approved, and could significantly harm our business, results of operations, and prospects.

***Our ETB therapeutic approach is novel and negative public opinion and increased regulatory scrutiny of ETB-based therapies may damage public perception of the safety of our drug or biologic candidates and adversely affect our ability to conduct our business or obtain regulatory approvals for our drug or biologic candidates.***

ETB therapy remains a novel technology, with no ETB therapy product approved to date in the United States or elsewhere worldwide. Public perception may be influenced by claims that ETB therapy is unsafe, and ETB therapy may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians who specialize in the treatment of the diseases targeted by our drug or biologic candidates prescribing treatments that involve the use of one or more of our approved drug or biologic candidates in lieu of, or in addition to, existing treatments with which they may be familiar and for which more clinical data may be available. More restrictive government regulations or negative public opinion regarding ETB-based drug or biologic candidates could have an adverse effect on our business, financial condition or results of operations and may delay or impair the development and commercialization of our drug or biologic candidates or demand for any products we may develop. Serious adverse events in ETB clinical trials for our competitors' products, even if not ultimately attributable to the relevant drug or biologic candidates, and the resulting publicity, could result in increased government regulation, unfavorable public perception, potential regulatory delays in the testing or approval of our drug or biologic candidates, stricter labeling requirements for those drug or biologic candidates that are approved and a decrease in demand for any such drug or biologic candidates.

***Product development involves a lengthy and expensive process with an uncertain outcome, and results of earlier preclinical studies and clinical trials may not be predictive of future clinical trial results.***

We currently have no products approved for sale and we cannot guarantee that we will ever have marketable products.Clinical testing is expensive and generally takes many years to complete, and the outcome is inherently uncertain. Failure can occur at any time during the clinical development process. Clinical trials may produce negative or inconclusive results, and we or any future collaboration partners may decide, or regulators may require us, to conduct additional clinical trials or preclinical studies. We will be required to demonstrate with substantial evidence through well-controlled clinical trials that our drug or biologic candidates are safe and effective for use in a diverse population before we can seek marketing approvals for their commercial sale. The results of preclinical studies and early clinical trials of our drug or biologic candidates may not be predictive of the results of larger, later-stage controlled clinical trials. Drug or biologic candidates that have shown promising results in early-stage clinical trials may still suffer significant setbacks or failure in subsequent clinical trials. Our clinical trials to date have been conducted on a small number of subjects in limited numbers of clinical trial sites for a limited number of indications. We will have to conduct larger, well-controlled trials in our proposed indications to verify the results obtained to date and to support any regulatory submissions for further clinical development. A number of companies in the biopharmaceutical industry have suffered significant setbacks or failure in advanced clinical trials due to lack of efficacy or adverse safety profiles despite promising results in earlier, smaller clinical trials. In particular, no ETB-based product candidates have been approved or commercialized in any jurisdiction, and the outcome of our preclinical studies and early-stage clinical trials may not be predictive of the success of later-stage clinical trials.

From time to time, we may publish or report interim or preliminary data from our clinical trials. Interim or preliminary data from clinical trials that we may conduct may not be indicative of the final results of the trial and are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Interim or preliminary data also remain subject to audit and verification procedures that may result in the final data being materially different from the interim or preliminary data. As a result, interim or preliminary data should be viewed with caution until the final data are available.

In some instances, there can be significant variability in safety and efficacy results between different clinical trials of the same drug or biologic candidate due to numerous factors, including changes in trial protocols, differences in size and type of the patient populations, differences in and adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. We therefore do not know whether any clinical trials we may conduct will demonstrate consistent or adequate efficacy and safety sufficient to obtain marketing approval to market our drug or biologic candidates.

***We may use our financial and human resources to pursue a particular research program or drug or biologic candidate and fail to capitalize on programs or drug or biologic candidates that may be more profitable or for which there is a greater likelihood of success.***

Because we have limited financial and human resources, we may forego or delay pursuit of opportunities with certain programs or drug or biologic candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or more profitable market opportunities. Our spending on current and future research and development programs and future drug or biologic candidates for specific indications may not yield any commercially viable products. We may also enter into additional strategic collaboration agreements to develop and commercialize some of our programs and potential drug or biologic candidates in indications with potentially large commercial markets. If we do not accurately evaluate the commercial potential or target market for a particular drug or biologic candidate, we may relinquish valuable rights to that drug or biologic candidate through strategic collaborations, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such drug or biologic candidate, or we may allocate internal resources to a drug or biologic candidate in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

***We may face potential product liability, and, if successful claims are brought against us, we may incur substantial liability and costs. If the use or misuse of our drug or biologic candidates harms subjects or is perceived to harm subjects even when such harm is unrelated to our drug or biologic candidates, we could be subject to costly and damaging product liability claims. If we are unable to obtain adequate insurance or are required to pay for liabilities resulting from a claim excluded from, or beyond the limits of, our insurance coverage, a material liability claim could adversely affect our financial condition.***

The use or misuse of our drug or biologic candidates in clinical trials and the sale of any products for which we may obtain marketing approval exposes us to the risk of potential product liability claims. Product liability claims might be brought against us by consumers, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with our drug or biologic candidates and approved products, if any. There is a risk that our drug or biologic candidates may induce adverse events. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs.

Some of our ETB product candidates have shown in clinical trials to induce adverse events. The identified adverse events considered to be important or potential risks of MT-5111 include, but are not limited to, cardiovascular injury, hepatotoxicity, acute kidney injury, myalgias, hematologic toxicity, infections, IRR, reproductive risks, CLS and CRS. The important or potential risks of MT-6402 include, but are not limited to, cardiovascular toxicity, hepatotoxicity, acute kidney injury, hematologic toxicity, coagulation and clinical chemistry toxicity, CRS, CLS, IRR, reproductive risks, and immune-related adverse reactions. The important or potential risks of TAK-169 include, but are not limited to, CRS, skeletal and cardiac muscular injury, CLS, IRR, and acute kidney injury.

There is a risk that our future drug or biologic candidates may induce similar or more severe adverse events. For example, we have observed a severe adverse event specifically, death, from and/or relating to CLS with our first-generation ETB, MT-3724. We discontinued the MT-3724 clinical studies to focus our resources on the development of our next-generation ETBs in April 2021. Patients with the diseases targeted by our drug or biologic candidates may already be in severe or advanced stages of disease and have both known and unknown significant preexisting and potentially life-threatening health risks. During the course of treatment, subjects may suffer adverse events, including death, for reasons that may be related to our drug or biologic candidates. Such events could subject us to costly litigation, require us to pay substantial amounts of money to injured subjects, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market our products, or require us to suspend or abandon our commercialization efforts. Even in a circumstance in which an adverse event is unrelated to our drug or biologic candidates, the investigation into the circumstance may be time-consuming or inconclusive. These investigations may delay our regulatory approval process or impact and limit the type of regulatory approvals our drug or biologic candidates receive or maintain. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on our business, financial condition or results of operations.

Although we have product liability insurance covering our clinical trials in the United States for up to $7.0 million per occurrence up to an aggregate limit of $7.0 million, our insurance may be insufficient to reimburse us for any expenses or losses we may suffer. We also will likely be required to increase our product liability insurance coverage for the advanced clinical trials that we plan to initiate. If we obtain marketing approval for any of our drug or biologic candidates, we will need to expand our insurance coverage to include the sale of commercial products. There is no way to know if we will be able to continue to obtain product liability coverage and obtain expanded coverage if we require it, in sufficient amounts to protect us against losses due to liability, on acceptable terms, or at all. We may not have sufficient resources to pay for any liabilities resulting from a claim excluded from, or beyond the limits of, our insurance coverage. Where we have provided indemnities in favor of third parties under our agreements with them, there is also a risk that these third parties could incur liability and bring a claim under such indemnities. An individual may bring a product liability claim against us alleging that one of our drug or biologic candidates causes, or is claimed to have caused, an injury or is found to be unsuitable for consumer use. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and breach of

warranties. Claims also could be asserted under state consumer protection acts. Any product liability claim brought against us, with or without merit, could result in:

- withdrawal of clinical trial volunteers, investigators, subjects or trial sites or limitations on approved indications;
- the inability to commercialize, or if commercialized, decreased demand for, our drug or biologic candidates;
- if commercialized, product recalls, withdrawals of labeling, marketing or promotional restrictions or the need for product modification;
- initiation of investigations by regulators;
- loss of revenues;
- substantial costs of litigation, including monetary awards to subjects or other claimants;
- liabilities that substantially exceed our product liability insurance, which we would then be required to pay;
- an increase in our product liability insurance rates or the inability to maintain insurance coverage in the future on acceptable terms, if at all;
- the diversion of management's attention from our business; and
- damage to our reputation and the reputation of our products and our technology.

Product liability claims may subject us to the foregoing and other risks, which could have a material adverse effect on our business, financial condition or results of operations.

***Biologics carry unique risks and uncertainties, which could have a negative impact on future results of operations.***

The successful discovery, development, manufacturing and sale of biologics is a long, expensive and uncertain process. There are unique risks and uncertainties with biologics. For example, access to and supply of necessary biological materials, such as cell lines, may be limited and governmental regulations restrict access to and regulate the transport and use of such materials. In addition, the development, manufacturing and sale of biologics is subject to regulations that are often more complex and extensive than the regulations applicable to other pharmaceutical products. Manufacturing biologics, especially in large quantities, is often complex and may require the use of innovative technologies. Such manufacturing also requires facilities specifically designed and validated for this purpose and sophisticated quality assurance and quality control procedures. Biologics are also frequently costly to manufacture because production inputs are derived from living animal or plant material, and some biologics cannot be made synthetically. Failure to successfully discover, develop, manufacture and sell our biological drug or biologic candidates would adversely impact our business and future results of operations.

***Our international activities, including clinical trials previously opened abroad, expose us to various risks, any number of which could harm our business.***

We are subject to the risks inherent in engaging in business across national boundaries, due in part to our clinical trials, which were previously open abroad and may be opened abroad in the future, any one of which could adversely impact our business. In addition to currency fluctuations, these risks include, among other things: economic downturns, pandemics, changes in or interpretations of local law, varying data protection requirements, governmental policy or regulation; restrictions on the transfer of funds into or out of the country; varying tax systems; and government protectionism. One or more of the foregoing factors could impair our current or future operations and, as a result, harm our overall business.

***Fluctuations in foreign currency exchange rates could result in changes in our reported financial results.***

We have incurred, and may incur again in the future, significant expenses denominated in foreign currencies, specifically in connection with our clinical trial sites, several of which were located in various countries outside of the United States. These clinical trial sites invoiced us in the local currency of the site. If we expand internationally, our exposure to currency risks will increase. We do not manage our foreign currency exposure in a manner that would eliminate the effects of changes in foreign exchange rates. Therefore, changes in exchange rates between these foreign currencies and the U.S. dollar have and may in the future affect our revenues and expenses and could result in exchange losses in any given reporting period. We incur currency transaction risks whenever we enter into either a purchase or a sale transaction using a currency other than the dollar, our functional currency, particularly in our arrangements for the purchase of supplies or licensing and collaboration agreements with partners outside of the

United States. We do not engage in foreign currency hedging arrangements for our accounts payable, and, consequently, foreign currency fluctuations may adversely affect our earnings. We may decide to manage this risk by hedging our foreign currency exposure, principally through derivative contracts. Even if we decide to enter into such hedging transactions, we cannot be sure that such hedges will be effective or that the costs of such hedges will not exceed their benefits. Given the volatility of exchange rates, we can give no assurance that we will be able to effectively manage our currency transaction risks or that any volatility in currency exchange rates will not have an adverse effect on our results of operations.

***Our business activities may be subject to the Foreign Corrupt Practices Act and similar anti-bribery and anti-corruption laws of other countries in which we operate.***

We have conducted studies in international locations and may in the future initiate studies in countries other than the United States. Our business activities may be subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate. The FCPA generally prohibits offering, promising, giving or authorizing others to give anything of value, either directly or indirectly, to a non-U.S. government official in order to influence official action or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-U.S. governments. Additionally, in many other countries, the health care providers who prescribe pharmaceuticals are employed by their governments, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers are subject to regulation under the FCPA. Recently the SEC and Department of Justice have increased their FCPA enforcement activities with respect to biotechnology and pharmaceutical companies. There is no certainty that all of our employees, agents or contractors, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers or our employees, the closing down of our facilities, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products, if approved, in one or more countries and could materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees and our business, prospects, operating results and financial condition.

**Risks Related to Regulatory Approval of Our Drug or Biologic Candidates and Other Legal Compliance Matters**

***A potential breakthrough therapy designation by the FDA for our drug or biologic candidates may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our drug or biologic candidates will receive marketing approval.***

We may seek a breakthrough therapy designation from the FDA for one or more of our drug or biologic candidates. A breakthrough therapy is defined as a drug or biological product that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug or biological product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs or biological products that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of a clinical trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs or biologic products designated as breakthrough therapies by the FDA could also be eligible for accelerated approval.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our drug or biologic candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a drug or biologic candidate may not result in a faster development process, review or approval, compared to drugs or biologics considered for approval under conventional or other accelerated FDA procedures and does not ensure ultimate approval by the FDA. In addition, even if one or more of our drug or biologic candidates qualify and are designated as a breakthrough therapy, the FDA may later decide that the drugs or biological products no longer meet the conditions for designation and the designation may be rescinded.

***We may seek Fast Track designation for one or more of our drug or biologic candidates, but we might not receive such designation, and even if we do, such designation may not actually lead to a faster development or regulatory review or approval process.***

If a drug or biologic candidate is intended for the treatment of a serious condition and nonclinical or clinical data demonstrate the potential to address an unmet medical need for this condition, a product sponsor may apply for FDA Fast Track designation. If we seek Fast Track designation for a drug or biologic candidate, we may not receive it from the FDA. However, even if we receive Fast

Track designation, Fast Track designation does not ensure that we will receive marketing approval or that approval will be granted within any particular time frameWe may not experience a faster development or regulatory review or approval process with Fast Track designation compared to conventional FDA procedures. In addition, the FDA may withdraw Fast Track designation if the designation is no longer supported by data from our clinical development program. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

***Even if we obtain regulatory approval for a product, we will remain subject to ongoing regulatory requirements.Maintaining compliance with ongoing regulatory requirements may result in significant additional expense to us, and any failure to maintain such compliance could subject us to penalties and cause our business to suffer.***

If any of our drug or biologic candidates are approved, we will be subject to ongoing regulatory requirements with respect to manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing clinical trials and submission of safety, efficacy and other post-approval information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to continuously comply with FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations and corresponding foreign regulatory manufacturing requirements. As such, we and our CMOs will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any BLA, NDA or other marketing authorization application.

Any regulatory approvals that we receive for our drug or biologic candidates may be subject to limitations on the approved indicated uses for which the drug or biologic candidate may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase IV clinical trials, and surveillance to monitor the safety and efficacy of the drug or biologic candidate. In addition, if the FDA, EMA or a comparable foreign regulatory authority approves any of our drug or biologic candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and record keeping for the products will be subject to extensive and ongoing regulatory requirements. Any new legislation addressing drug safety issues could result in delays in product development or commercialization, or increased costs to assure compliance. If our original marketing approval for a drug or biologic candidate was obtained through an accelerated approval pathway, we could be required to conduct a successful post-marketing clinical trial in order to confirm the clinical benefit for our products. An unsuccessful post-marketing clinical trial or failure to complete such a trial could result in the withdrawal of marketing approval.

We must also comply with requirements concerning advertising and promotion for any of our drug or biologic candidates for which we hope to obtain marketing approval. Promotional communications with respect to prescription drugs and biologics are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. If we are not able to comply with post-approval regulatory requirements, we could have marketing approval for any of our products withdrawn by regulatory authorities and our ability to market any future products could be limited, which could adversely affect our ability to achieve or sustain profitability. Thus, the cost of compliance with post-approval regulations may have a negative effect on our operating results and financial condition.

In addition, later discovery of previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or failure to comply with applicable regulatory requirements may result in a variety of risks. For example, a regulatory agency or enforcement authority may, among other things:

- impose restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- impose requirements to conduct post-marketing studies or clinical trials;
- issue warning or untitled letters if the regulator is the FDA, or comparable notice of violations from foreign regulatory authorities;
- issue consent decrees, injunctions or impose civil or criminal penalties;
- require the payment of fines, restitution or disgorgement of profits or revenues;
- suspend or withdraw regulatory approval;
- suspend any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our CMOs' facilities; or
- require product seizure or detention, recalls or refuse to permit the import or export of products.

Any government investigation of alleged violations of law would be expected to require us to expend significant time and resources in response and could generate adverse publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to develop and commercialize our products and our value and our operating results would be adversely affected. In addition, regulatory authorities' policies (such as those of the FDA or EMA) may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our drug or biologic candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are otherwise not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

***Our commercial success will depend upon attaining significant market acceptance of our drug or biologic candidates, if approved, among physicians, patients, third-party payors and other members of the medical community.***

Even if we obtain regulatory approval for our drug or biologic candidates, the approved products may nonetheless fail to gain sufficient market acceptance among physicians, third-party payors, patients and other members of the medical community, which is critical to commercial success. If an approved product does not achieve an adequate level of acceptance, we may not generate significant product revenues or any profits from operations. The degree of market acceptance of any drug or biologic candidate for which we receive approval depends on a number of factors, including:

- the efficacy and potential advantages compared to alternative treatments or competitive products;
- perceptions by the medical community, physicians, and patients, regarding the safety and effectiveness of our products and the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the size of the market for such drug or biologic candidate, based on the size of the patient subsets that we are targeting, in the territories for which we gain regulatory approval and have commercial rights;
- the safety of the drug or biologic candidate as demonstrated through broad commercial distribution;
- the ability to offer our drug or biologic candidates for sale at competitive prices;
- the availability of adequate reimbursement and pricing for our products from governmental health programs and other third-party payors;
- relative convenience and ease of administration compared to alternative treatments;
- cost-effectiveness of our product relative to competing products;
- the prevalence and severity of any side effects;
- the adequacy of supply of our drug or biologic candidates;
- the timing of any such marketing approval in relation to other product approvals;
- any restrictions on concomitant use of other medications;
- support from patient advocacy groups; and
- the effectiveness of sales, marketing and distribution efforts by us and our licensees and distributors, if any.

If our drug or biologic candidates are approved but fail to achieve an adequate level of acceptance by key market participants, we will not be able to generate significant revenues, and we may not become or remain profitable, which may require us to seek additional financing.

Our ability to negotiate, secure and maintain third-party coverage and reimbursement for our drug or biologic candidates may be affected by political, economic and regulatory developments in the United States, the European Union and other jurisdictions. Governments continue to impose cost containment measures, and third-party payors are increasingly challenging prices charged for medicines and examining their cost effectiveness, in addition to their safety and efficacy. These and other similar developments could significantly limit the degree of market acceptance of any drug or biologic candidate of ours that receives marketing approval in the future.

***Healthcare legislative reform measures may have a material adverse effect on our business, financial condition or results of operations.***

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, or the ACA, was passed. The ACA is a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of health care spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. As another example, the 2021 Consolidated Appropriations Act, which was signed into law on December 27, 2020, incorporated extensive health care provisions and amendments to existing laws, including a requirement that all manufacturers of drugs and biological products covered under Medicare Part B report the product's average sales price to HHS beginning on January 1, 2022, as well as several changes to the statutes governing FDA's drug and biologic programs.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and as a result certain sections of the ACA have not been fully implemented or have been effectively repealed through Executive Orders and/or executive agency actions. In addition, in December 2019, the Fifth Circuit Court of Appeals upheld a federal district court decision finding the individual insurance mandate in the ACA to be unconstitutional. The Fifth Circuit also reversed and remanded the case to the district court to determine if other reforms enacted as part of the ACA, but not specifically related to the individual mandate or health insurance (including the Biologics Price Competition and Innovation Act, or the BPCIA, that created the abbreviated application and licensure pathway for biosimilar and interchangeable biological products), could be severed from the rest of the ACA so that the entire law would not be declared invalid. On March 2, 2020, the U.S. Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which occurred on November 10, 2020. A decision from the Supreme Court is expected in spring 2021. It is unclear how this litigation and other efforts to repeal and replace the ACA will affect the implementation of that law, the pharmaceutical industry generally, and our business. The uncertainty around the future of the ACA, and in particular the impact to reimbursement levels, may lead to uncertainty or delay in the purchasing decisions of our customers, which may in turn negatively impact our product sales. If there are not adequate reimbursement levels, our business and results of operations could be adversely affected.

In the United States and in some other jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the health care system that could prevent or delay marketing approval of our drug or biologic candidates, restrict or regulate post-approval activities, or affect our ability to profitably sell any drug or biologic candidates for which we obtain marketing approval, if any. Further, over the past several years there has been heightened governmental scrutiny over the manner in which biopharmaceutical manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. There also are a number of state and local legislative and regulatory efforts related to drug or biologic pricing, including drug or biologic price transparency laws that apply to pharmaceutical manufacturers, that may have an impact on our business. Individual states in the U.S. have become increasingly active in passing legislation and implementing regulations designed to control product pricing, including price or patient reimbursement constraints, discounts, and restrictions on certain product access. The probability of success of these newly announced policies, many of which have been subjected to legal challenge in the federal court system, and their potential impact on the U.S. prescription drug marketplace is unknown. There are likely to be continued political and legal challenges associated with implementing these reforms as they are currently envisioned, and the January 20, 2021 transition to a new Democrat-led presidential administration created further uncertainty. Following his inauguration, President Biden took immediate steps to order a regulatory freeze on all pending substantive executive actions in order to permit incoming department and agency heads to review whether questions of fact, policy, and law may be implicated and to determine how to proceed. In addition, certain regulatory actions taken by the Trump Administration on or after August 21, 2020 (*i.e.*, in the last 60 days of legislative session of the 116th Congress) may also be vulnerable to being overturned by a joint resolution of disapproval from Congress under the procedures set forth in the Congressional Review Act.

There also are a number of state and local legislative and regulatory efforts related to drug or biologic pricing, including drug or biologic price transparency laws that apply to pharmaceutical manufacturers, that may have an impact on our business. Individual states in the U.S. have become increasingly active in passing legislation and implementing regulations designed to control product pricing, including price or patient reimbursement constraints, discounts, and restrictions on certain product access. In December 2020, the U.S. Supreme Court held unanimously that federal law does not preempt the states' ability to regulate pharmaceutical benefit managers, or PBMs, and other members of the health care and pharmaceutical supply chain, an important decision that may lead to further and more aggressive efforts by states in this area.

In addition, the Drug Supply Chain Security Act enacted in 2013 imposes new obligations on manufacturers of pharmaceutical products related to product tracking and tracing, and that law is expected to be fully implemented over a ten-year period. In December 2019, President Trump signed the Further Consolidated Appropriations Act for 2020 into law (P.L. 116-94) that includes a piece of bipartisan legislation called the Creating and Restoring Equal Access to Equivalent Samples Act of 2019 or the "CREATES Act." The CREATES Act aims to address the concern articulated by both the FDA and others in the industry that some brand manufacturers have improperly restricted the distribution of their products, including by invoking the existence of a REMS for certain products, to

deny generic and biosimilar product developers access to samples of brand products. The CREATES Act establishes a private cause of action that permits a generic or biosimilar product developer to sue the brand manufacturer to compel it to furnish the necessary samples on "commercially reasonable, market-based terms." Whether and how generic and biosimilar product developments will use this new pathway, as well as the likely outcome of any legal challenges to provisions of the CREATES Act, remain highly uncertain and its potential effects on our future commercial products are unknown. Other legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical or biological products. We cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals, if any, of our drug or biologic candidates, may be or whether such changes will have any other impacts on our business In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing conditions and other requirements.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our products. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or EU member state level may result in significant additional requirements or obstacles that may increase our operating costs.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria, lower reimbursement and additional downward pressure on the price that we will receive for any approved product. Any reduction in payments from Medicare or other government-funded programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

***Our relationships with prescribers, purchasers, third-party payors and patients will be subject to applicable anti-kickback, fraud and abuse and other health care laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.***

If we obtain FDA approval for any of our drug or biologic candidates and begin commercializing those products in the United States, our operations will be subject to additional health care statutory and regulatory requirements and oversight by federal and state governments in the United States as well as foreign governments in the jurisdictions in which we conduct our business. Physicians, other health care providers and third-party payors will play a primary role in the recommendation, prescription and use of any drug or biologic candidates for which we obtain marketing approval. In the U.S., our future arrangements with such third parties may expose us to broadly applicable fraud and abuse and other health care laws and regulations that may constrain our business or financial arrangements and relationships through which we market, sell and distribute any products for which we may obtain marketing approval. Violations of the fraud and abuse laws are punishable by criminal and civil sanctions, including, in some instances, exclusion from participation in federal and state health care programs, including Medicare and Medicaid. Restrictions under applicable domestic and foreign health care laws and regulations include but are not limited to the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase order or recommendation of a good or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs; a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- federal civil and criminal false claims laws and civil monetary penalty laws, including the U.S. False Claims Act, which impose criminal and civil penalties against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government; actions may be brought by the government or a whistleblower and may include an assertion that a claim for payment by federal health care programs for items and services which results from a violation of the federal Anti-Kickback Statue constitutes a false or fraudulent claim for purposes of the False Claims Act;
- the Health Insurance Portability and Accountability Act of 1996, or HIPAA, that imposes criminal and civil liability for executing a scheme to defraud any health care benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for health care benefits, items or services; similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- analogous state and foreign laws and regulations relating to health care fraud and abuse, such as state anti-kickback and false claims laws, that may apply to sales or marketing arrangements and claims involving health care items or services reimbursed by non-governmental third-party payors, including private insurers;

- the federal physician payment transparency requirements, sometimes referred to as the "Sunshine Act," enacted as part of the ACA, which requires manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to CMS information related to payments and other transfers of value to physicians, other healthcare providers and teaching hospitals (and, beginning in 2021, for transfers of value to other health care providers), as well as the ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;
- analogous state and foreign laws that require pharmaceutical companies to track, report and disclose to the government and/or the public information related to payments, gifts, and other transfers of value or remuneration to physicians and other health care providers, marketing activities or expenditures, or product pricing or transparency information, or that require pharmaceutical companies to implement compliance programs that meet certain standards or to restrict or limit interactions between pharmaceutical manufacturers and members of the health care industry;
- the U.S. federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under federal health care programs;
- HIPAA, which imposes obligations on certain covered entity health care providers, health plans, and health care clearinghouses as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information; and
- state and foreign laws that govern the privacy and security of health information in certain circumstances, including state security breach notification laws, state health information privacy laws and federal and state consumer protection laws, many of which differ from each other in significant ways or conflict with each other and often are not preempted by HIPAA, thus complicating compliance efforts.

Notably, in November 2020, HHS finalized significant changes to the regulations implementing the Anti-Kickback Statute, as well as the Physician Self-Referral Law (Stark Law) and the civil monetary penalty rules regarding beneficiary inducements, with the goal of offering the health care industry more flexibility and reducing the regulatory burden associated with those fraud and abuse laws, particularly with respect to value-based arrangements among industry participants. As noted above under "***Healthcare legislative reform measures may have a material adverse effect on our business, financial condition or results of operations***," those final rules may be at risk of potentially being overturned under the Congressional Review Act following the change in control of the legislative and executive branches in January 2021.

Efforts to ensure that our business arrangements with third parties will comply with applicable health care laws and regulations will involve substantial costs. If the FDA or a comparable foreign regulatory authority approves any of our drug or biologic candidates, we will be subject to an expanded number of these laws and regulations and will need to expend resources to develop and implement policies and processes to promote ongoing compliance. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other health care laws and regulations, resulting in government enforcement actions. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

***We may be subject to, or may in the future become subject to, U.S. federal and state, and foreign laws and regulations imposing obligations on how we collect, use, disclose, store and process personal information. Our actual or perceived failure to comply with such obligations could result in liability or reputational harm and could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our customer base, and thereby decrease our revenue.***

In many activities, including the conduct of clinical trials, we may be subject to laws and regulations governing data privacy and the protection of health-related and other personal information. These laws and regulations govern our processing of personal data, including the collection, access, use, analysis, modification, storage, transfer, security breach notification, destruction and disposal of personal data.

The privacy and security of personally identifiable information stored, maintained, received or transmitted, including electronically, is subject to significant regulation in the United States and abroad. While we strive to comply with all applicable privacy and security laws and regulations, legal standards for privacy continue to evolve and any failure or perceived failure to comply may result in proceedings or actions against us by government entities, affected individuals or others, which could be extraordinarily expensive to defend and could cause reputational harm, which could have a material adverse effect on our business.

Numerous foreign, federal and state laws and regulations govern collection, dissemination, use and confidentiality of personally identifiable health information, including state privacy and confidentiality laws (including state laws requiring disclosure of breaches), federal and state consumer protection and employment laws, HIPAA and European and other foreign data protection laws. These laws and regulations are increasing in complexity and number and may change frequently and sometimes conflict. The European Union's omnibus data protection law, the General Data Protection Regulation, or GDPR, took effect on May 25, 2018. The GDPR imposes numerous requirements on entities that process personal data in the context of an establishment in the European Economic Area, or EEA, or that process the personal data of data subjects who are located in the EEA. These requirements include, for example, establishing a basis for processing, providing notice to data subjects, developing procedures to vindicate expanded data subject rights, implementing appropriate technical and organizational measures to safeguard personal data, and complying with restrictions on the cross-border transfer of personal data from the EEA to countries that the European Union does not consider to have in place adequate data protection legislation, such as the United States. The GDPR additionally establishes heightened obligations for entities that process "special categories" of personal data, such as health data. Nearly all clinical trials involve the processing of these "special categories" of personal data, and thus processing of personal data collected during the course of clinical trials is subject to heightened protections under the GDPR. Violations of the GDPR can lead to penalties of up to €20 million or 4% of an entity's annual turnover. The United Kingdom has incorporated the GDPR into its Data Protection Act 2018, and substantially equivalent requirements and penalties apply in the United Kingdom.

On July 16, 2020, the Court of Justice of the European Union, or the CJEU, issued a landmark opinion in the case *Maximilian Schrems vs. Facebook* (Case C-311/18), called *Schrems II.* This decision calls into question certain data transfer mechanisms as between the European Union member states and the United States. The CJEU is the highest court in Europe and the *Schrems II* decision heightens the burden on data importers to assess U.S. national security laws on their business, and future actions of European Union data protection authorities are difficult to predict at this early date. Consequently, there is some risk of any such data transfers from the European Union being halted by one or more European Union member states. Any contractual arrangements requiring the transfer of personal data from the European Union to us in the United States will require greater scrutiny and assessments as required under *Schrems II* and may have an adverse impact on cross-border transfers of personal data or increase costs of compliance.

HIPAA establishes a set of national privacy and security standards for the protection of protected health information, or PHI, by health plans, health care clearinghouses and health care providers that submit certain covered transactions electronically, or covered entities, and their "business associates," which are persons or entities that perform certain services for, or on behalf of, a covered entity that involve creating, receiving, maintaining or transmitting PHI. While we are not currently a covered entity or business associate under HIPAA, we are indirectly impacted by HIPAA because HIPAA regulates the ability of clinical investigators and other health care providers to share PHI with us. Failure to receive this information properly could subject us or our health care provider collaborators to HIPAA's criminal penalties, which may include fines up to $250,000 per violation and/or imprisonment. In addition, responding to government investigations regarding alleged violations of these and other laws and regulations, even if ultimately concluded with no findings of violations or no penalties imposed, can consume company resources and impact our business and, if public, harm our reputation.

In addition, various states, such as California and Massachusetts, have implemented their own privacy laws and regulations, such as the California Confidentiality of Medical Information Act, that impose restrictive requirements regulating the use and disclosure of health information and other personally identifiable information. In addition to fines and penalties imposed upon violators, some of these state laws also afford private rights of action to individuals who believe their personal information has been misused. California's patient privacy laws, for example, provide for penalties of up to $250,000 and permit injured parties to sue for damages. In addition to the California Confidentiality of Medical Information Act, California also recently enacted the California Consumer Privacy Act of 2018, or CCPA, which became effective January 1, 2020 with the final regulations made effective in August 2020. The CCPA has been characterized as the first "GDPR-like" privacy statute to be enacted in the United States because it mirrors a number of the key provisions of the EU General Data Protection Regulation. The CCPA establishes a new privacy framework for covered businesses in the State of California, by creating an expanded definition of personal information, establishing new data privacy rights for consumers, imposing special rules on the collection of consumer data from minors, and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches.

The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and potentially exposing us to additional expense, adverse publicity and liability. Further, as regulatory focus on privacy issues continues to increase and laws and regulations concerning the protection of personal information expand and become more complex, these potential risks to our business could intensify. The legislative and regulatory landscape for privacy and data security continues to evolve, and there has been an increasing focus on privacy and data security issues which may affect our business. Failure to comply with current and future laws and regulations could result in government enforcement actions (including the imposition of significant penalties), criminal and/or civil liability for us and our officers and directors, private litigation and/or adverse publicity that negatively affects our business.

***Reliance on government funding for our programs may add uncertainty to our research and commercialization efforts with respect to those programs that are tied to such funding and may impose requirements that limit our ability to take certain actions, increase the costs of commercialization and production of drug or biologic candidates developed under those programs and subject us to potential financial penalties, which could materially and adversely affect our business, financial condition and results of operations.***

During the course of our development of certain of our drug or biologic candidates, we have been funded in significant part through state grants, including but not limited to the substantial funding we have received from the Cancer Prevention & Research Institute of Texas, or CPRIT. We entered our first CPRIT award grant contract, or the 2011 CPRIT Agreement, on December 1, 2011. This product development grant ended in November 2019. On September 18, 2018, we entered into a second CPRIT award grant contract for our CD38 targeted ETB program, or the CD38 CPRIT Agreement, which was extended in October 2020. In addition to the funding, we have received to date, we have applied and intend to continue to apply for federal and state grants to receive additional funding in the future, which may or may not be successful. Contracts and grants funded by the U.S. government, state governments and their related agencies, including our contracts with the State of Texas pertaining to funds we have already received, include provisions that reflect the government's substantial rights and remedies, many of which are not typically found in commercial contracts, including powers of the government to:

- require repayment of all or a portion of the grant proceeds, in certain cases with interest, in the event we violate certain covenants pertaining to various matters that include any potential relocation outside of the State of Texas, failure to achieve certain milestones or to comply with terms relating to use of grant proceeds, or failure to comply with certain laws;
- terminate agreements, in whole or in part, for any reason or no reason;
- reduce or modify the government's obligations under such agreements without the consent of the other party;
- claim rights, including march-in and other intellectual property rights, in products and data developed under such agreements;
- audit contract-related costs and fees, including allocated indirect costs;
- suspend the contractor or grantee from receiving new contracts pending resolution of alleged violations of procurement laws or regulations;
- impose the State of Texas or U.S. manufacturing requirements for products that embody inventions conceived or first reduced to practice under such agreements;
- impose the qualifications for the engagement of manufacturers, suppliers and other contractors as well as other criteria for reimbursements;
- suspend or debar the contractor or grantee from doing future business with the government;
- control and potentially prohibit the export of products;
- pursue criminal or civil remedies under the False Claims Act, False Statements Act and similar remedy provisions specific to government agreements; and
- limit the government's financial liability to amounts appropriated by the State of Texas on a fiscal-year basis, thereby leaving some uncertainty about the future availability of funding for a program even after it has been funded for an initial period.

In addition to those powers set forth above, the government funding we may receive could also impose requirements to make payments based upon sales of our products in the future. For example, under the terms of our CD38 CPRIT Agreement, we are required to pay CPRIT a percentage of our revenues from sales of products directly funded by CPRIT, or received from our licensees or sub licensees, at a percentage in the low to mid-single digits until the aggregate amount of such payments equals 400% of the funds, we receive from CPRIT, and thereafter at a rate of one-half percent.

We may not have the right to prohibit the State of Texas or, if relevant under possible future federal grants, the U.S. government, from using certain technologies developed by us, and we may not be able to prohibit third-party companies, including our competitors, from using those technologies in providing products and services to the U.S. government. The U.S. government generally takes the position that it has the right to royalty-free use of technologies that are developed under U.S. government contracts. These and other provisions of government grants may also apply to intellectual property we license now or in the future.

In addition, government contracts and grants normally contain additional requirements that may increase our costs of doing business, reduce our profits and expose us to liability for failure to comply with these requirements. These requirements include, for example:

- specialized accounting systems unique to government contracts and grants;
- mandatory financial audits and potential liability for price adjustments or recoupment of government funds after such funds have been spent;
- public disclosures of certain contract and grant information, which may enable competitors to gain insights into our research program; and
- mandatory socioeconomic compliance requirements, including labor standards, non-discrimination and affirmative action programs and environmental compliance requirements.

If we fail to maintain compliance with any such requirements that may apply to us now or in the future, we may be subject to potential liability and to termination of our contracts.

***If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on our business, financial condition or results of operations.***

Our research and development activities and our third-party manufacturers' and suppliers' activities involve the controlled storage, use, and disposal of hazardous materials, including the components of our drug or biologic candidates and other hazardous compounds. We and our manufacturers and suppliers are subject to laws and regulations governing the use, manufacture, storage, handling, and disposal of these hazardous materials. In some cases, these hazardous materials and various wastes resulting from their use are stored at our and our manufacturers' facilities pending their use and disposal. We cannot eliminate the risk of contamination, which could cause an interruption of our commercialization efforts, research and development efforts and business operations; environmental damage resulting in costly clean-up; and liabilities under applicable laws and regulations governing the use, storage, handling, and disposal of these materials and specified waste products. Although we believe that the safety procedures utilized by us and our third-party manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, we cannot guarantee that this is the case or eliminate the risk of accidental contamination or injury from these materials. In such an event, we may be held liable for any resulting damages and such liability could exceed our resources and state or federal or other applicable authorities may curtail our use of specified materials and/or interrupt our business operations. Furthermore, environmental laws and regulations are complex, change frequently, and have tended to become more stringent. We cannot predict the impact of such changes and cannot be certain of our future compliance. We do not currently carry biological or hazardous waste insurance coverage.

***Inadequate funding for the FDA, the SEC and other government agencies could hinder their ability to hire and retain key leadership and other personnel, prevent our drug or biologic candidates from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business rely, which could negatively impact our business.***

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs and biologic products to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times, including from December 22, 2018 through January 25, 2019, and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. Moreover, recent shutdowns or slowdowns caused by the federal response to the COVID-19 pandemic can increase the time needed for the agency to complete its review or make final approval or other administrative decisions. If a prolonged government shutdown or slowdown occurs, it could significantly affect the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, in our operations as a public company, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

**Risks Related to Our Intellectual Property**

***Our ability to compete effectively may decline if we are unable to establish intellectual property rights or if our intellectual property rights are inadequate to protect our ETB technology, present and future drug or biologic candidates and related processes for our developmental pipeline.***

We rely or will rely upon a combination of patents, trade secret protection, and confidentiality agreements to protect our intellectual property related to our technologies and drug or biologic candidates. Our commercial success and viability depend in large part on our current and potential future licensors or collaboration partners' ability to obtain, maintain and enforce patent and other intellectual property protections in the United States, Europe and other countries worldwide with respect to our current and future proprietary technologies and drug or biologic candidates. If we or our current or future licensors or collaboration partners do not adequately protect such intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could materially harm our business, negatively affect our position in the marketplace, limit our ability to commercialize drug or biologic candidates and delay or render impossible our achievement of profitability.

Our strategy and future prospects are based, in part, on our patent portfolio. We and our current and future licensors or collaboration partners or licensees will best be able to protect our proprietary ETB technologies, drug or biologic candidates and their uses from unauthorized use by third parties to the extent that valid and enforceable patents, other regulatory exclusivities or effectively protected trade secrets, cover them. We have sought to protect our proprietary position by filing in the United States and elsewhere patent applications related to our proprietary ETB technologies, drug or biologic candidates and methods of use that are important to our business. This process is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain meaningful patent protection.

Intellectual property rights have limitations and do not necessarily address all potential threats to our competitive advantage. Our ability to obtain patent protection for our proprietary technologies, drug or biologic candidates and their uses is uncertain, and the degree of future protection afforded by our intellectual property rights is uncertain due to a number of factors, including, but not limited to:

- we or our current or future collaboration partners may not have been the first to make the inventions disclosed in or covered by pending patent applications or issued patents;
- we or our current or future licensors or collaboration partners may not have been the first to file patent applications covering our ETB technology, drug or biologic candidates, compositions or their uses;
- others may independently develop identical, similar or alternative methods, products, drug or biologic candidates or compositions and uses thereof;
- we or our current or future licensors or collaboration partners' disclosures in patent applications may not be sufficient to meet the statutory requirements for patentability;
- any or all of our current or future licensors or collaboration partners' pending patent applications may not result in issued patents;
- we or our current or future licensors or collaboration partners may not seek or obtain patent protection in jurisdictions or countries that may provide us with a significant business opportunity;
- we or our current or future licensors or collaboration partners might seek or obtain patent protection in jurisdictions or countries that might not provide us with a significant business opportunity;
- any patents issued to us or to our current or future licensors or collaboration partners, or to us and to our current or future licensors or collaboration partners, may not provide a basis for commercially viable products, may not provide any competitive advantages or may be successfully challenged by one or more third parties;
- we or our current or future licensors' or collaboration partners' products, drug or biologic candidates, compositions, methods or uses thereof may not be patentable;
- we or our current or future licensors or collaboration partners might fail to maintain our or their patents, resulting in their abandonment;
- we or our current or future licensors or collaboration partners might fail to obtain patent term extensions available in the United States or in foreign jurisdictions or countries;

- others may design around our or our current or future licensors' or collaboration partners' patent claims to produce competitive technologies, products or uses which fall outside of the scope of our patents or other intellectual property rights;
- others may identify prior art or other bases which could render unpatentable our or our current or future licensors' or collaboration partners' patent applications, or invalidate our or our current or future licensors or collaboration partners' patents;
- our competitors might conduct research and development activities in the United States and other countries that provide a safe harbor from patent infringement claims for certain research and development activities, as well as in countries where we or our current or future licensors or collaboration partners do not have patent rights, and then use the information learned from such activities to develop competitive products for sale in major commercial markets; or
- we or our current or future licensors or collaboration partners may not develop additional proprietary technologies or products that are patentable.

Further, the patent position of biotechnology and pharmaceutical companies generally is highly uncertain and involves complex legal and factual questions for which legal principles remain unsettled. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our or our competitors' drug or biologic candidates or their uses in the United States or in other countries. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found, which can invalidate a patent or prevent a patent from issuing from a pending patent application. Even if patents do successfully issue, and even if such patents cover our technologies, drug or biologic candidates, compositions or their uses, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed, found unenforceable or invalidated. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our drug or biologic candidates or prevent others from designing around our claims. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

We, independently or together with our collaboration partners, have filed patent applications covering various aspects of our ETB technology, drug or biologic candidates and associated assays and uses. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patent or whether any issued patents will be found invalid and unenforceable or will be threatened by one or more third parties. Any successful opposition or challenge to these patents or to any other patents owned by or licensed to us after patent issuance could deprive us of rights necessary for the successful commercialization of any drug or biologic candidates that we may develop. Further, if we encounter delays in regulatory approvals, the period of time during which we could market a drug or biologic candidate under patent protection could be reduced.

If we cannot obtain and maintain effective protection of exclusivity from our regulatory efforts and intellectual property rights, including patent protection or data or market exclusivity for our technologies, drug or biologic candidates, compositions or their uses, we may not be able to compete effectively, and our business and results of operations would be harmed.

***We may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on drug or biologic candidates in all countries throughout the world would be prohibitively expensive. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal or state laws in the United States. Competitors may use our technologies to develop our own products in jurisdictions where we have not obtained patent protection and may also export infringing products to territories where we do not have patent protection, or to territories where we have patent protection, but where enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of some countries, particularly some developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to healthcare, medicine, or biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our resources, efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

***We may not have sufficient patent term or regulatory exclusivity protections for our drug or biologic candidates to effectively protect our competitive position.***

Patents have a limited term. In the United States and most jurisdictions worldwide, the statutory expiration of a non-provisional patent is generally 20 years after it is first filed. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Even if patents covering our technologies, drug or biologic candidates and associated uses are obtained, once the patent's life has expired, including for failure to pay maintenance fees or annuities, we may be open to competition from generic, biosimilar or biobetter medications.

Patent term extensions under the Hatch-Waxman Act in the United States, and regulatory extensions in Japan and certain other countries, and under Supplementary Protection Certificates in Europe, may be available to extend the patent or market or data exclusivity terms of our drug or biologic candidates depending on the timing and duration of the regulatory review process relative to patent term. In addition, upon issuance of a United States patent, any patent term may be adjusted based on specified delays during patent prosecution caused by the applicant(s) or the United States Patent and Trademark Office, or the USPTO. Although we will likely seek patent term extensions in the U.S. and in one or more foreign jurisdictions where available, we cannot provide any assurances that any such patent term extensions will be granted and, if so, for how long. As a result, we may not be able to maintain exclusivity for our drug or biologic candidates for an extended period after regulatory approval, if any, which would negatively impact our business, financial condition, results of operations and prospects. If we do not have sufficient patent term or regulatory exclusivity to protect our drug or biologic candidates, our business and results of operations will be adversely affected.

***Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our technologies and products, and recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.***

As is the case with other biotechnology companies, our success is heavily dependent on patents. Obtaining and enforcing patents in the biotechnology industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in specified circumstances and weakened the rights of patent owners in specified situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

On September 16, 2011, the Leahy-Smith America Invents Act, or AIA was signed into law. The AIA includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, the scope of prior art and may also affect patent litigation. The USPTO has promulgated regulations and developed procedures to govern administration of the AIA, and many of the substantive changes to patent law associated with the AIA, and in particular, the first inventor to file a provisional patent application, did not come into effect until March 16, 2013. The AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition or results of operations.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a "first-inventor-to-file" system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. A third party that filed or files a patent application in the USPTO after March 16, 2013 but before we file an application could therefore be granted a patent covering an invention of ours even if we had made the invention before it was made by the third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Furthermore, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our technology and the prior art allow our technology to be patentable over the prior art. Since patent applications in the United States and most other countries are confidential at least 18 months after filing, we cannot be certain that we were the first to either (i) file any patent application related to our drug or biologic candidates or (ii) invent any of the inventions claimed in our patents or patent applications.

Among some of the other changes introduced by the AIA are procedures providing opportunities for third parties to challenge any issued patent in the USPTO. Included in these new procedures is a process known as inter partes review, or IPR, which has been used by many third parties to challenge and invalidate patents. The IPR process is not limited to patents filed after the AIA was enacted and would therefore be available to a third party seeking to invalidate any of our U.S. patents, even those issued or filed before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in

a district court action. Accordingly, a third party may attempt to use the USPTO procedures, e.g., an IPR, to invalidate our patent claims that would not have been invalidated if first challenged by the third party in a district court action.

***We could be required to incur significant expenses to obtain our intellectual property rights, and we cannot ensure that we will obtain meaningful patent protection for our drug or biologic candidates.***

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. In addition, it is also possible that we will fail to identify patentable aspects of further inventions made in the course of our research, development or commercialization activities before they are publicly disclosed, making it in many cases too late to obtain patent protection on them. Further, given the amount of time required for the development, testing and regulatory review of new drug or biologic candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. We expect to seek extensions of patent terms where these are available in any countries where we are prosecuting patents. This includes in the United States under the Drug Price Competition and Patent Term Restoration Act of 1984, which permits a patent term extension of up to five years beyond the expiration of a patent that covers an approved product where the permission for the commercial marketing or use of the product is the first permitted commercial marketing or use, and as long as the remaining term of the patent does not exceed 14 years. However, the applicable authorities, including the FDA in the United States, and any comparable regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. If this occurs, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The laws of foreign countries may not protect our rights to the same extent as the laws of the United States, and these foreign laws may also be subject to change. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing or in some cases not at all. Therefore, we cannot be certain that we, our collaboration partners or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we, our collaboration partners or our licensors were the first to file for patent protection of such inventions.

***Issued patents covering our ETB technologies, drug or biologic candidates, compositions or uses could be found invalid or unenforceable if challenged in a patent office or court.***

Even if our current or future collaboration partners' or licensors' patents do successfully issue and even if such patents cover our technologies, drug or biologic candidates, compositions or methods of use, third parties may initiate interference, re-examination, post-grant review, IPR or derivation actions in the USPTO; may initiate third party oppositions in the European Patent Office, or EPO; or may initiate similar actions challenging the validity, enforceability, scope or term of such patents in other patent administrative or court proceedings worldwide, which may result in patent claims being narrowed or invalidated. Such proceedings could result in revocation or amendment of our patents in such a way that they no longer cover competitive technologies, drug or biologic candidates, compositions or methods of use. Further, if we initiate legal proceedings against a third party to enforce a patent covering our technologies, drug or biologic candidates, compositions or uses, the defendant could counterclaim that our relevant patent is invalid or unenforceable. In patent litigation in the United States, certain European and other countries worldwide, it is commonplace for defendants to make counterclaims alleging invalidity and unenforceability in the same proceeding, or to commence parallel defensive proceedings such as patent nullity actions to challenge validity and enforceability of asserted patent claims. Further, in the United States, a third party, including a licensee of one of our current or future collaboration partners' patents, may initiate legal proceedings against us in which the third party challenges the validity, enforceability, or scope of our patent(s).

In administrative and court actions, grounds for a patent validity challenge may include alleged failures to meet any of several statutory requirements, including novelty, nonobviousness (or inventive step), clarity, adequate written description and enablement of the claimed invention. Grounds for unenforceability assertions include allegations that someone associated with the filing or prosecution of the patent withheld material information from the Examiner during prosecution in the USPTO or made a misleading statement during prosecution in the USPTO, the EPO or elsewhere. Third parties also may raise similar claims before administrative bodies in the USPTO or the EPO, even outside the context of litigation. The outcome following legal assertions of invalidity or unenforceability are unpredictable. With respect to patent claim validity, for example, we cannot be certain that there is no invalidating prior art, of which we or the patent examiner was unaware during prosecution. Further, we cannot be certain that all of the potentially relevant art relating to our patents and patent applications has been brought to the attention of every patent office. If a defendant or other patent challenger were to prevail on a legal assertion of invalidity or unenforceability, we could lose at least part, and perhaps all, of the patent protection on our ETB technology, drug or biologic candidates, compositions and associated uses.

***We may become involved in lawsuits to protect or enforce our patents or other intellectual property rights, which could be expensive, time consuming and unsuccessful and have a material adverse effect on the success of our business.***

Competitors may infringe our patents or the patents of any of our future licensors. If we or one of our collaboration partners were to initiate legal proceedings against a third party to enforce a patent covering one of our drug or biologic candidates, the defendant could counterclaim that the patent covering our drug or biologic candidate is invalid and/or unenforceable. In addition, a third party might initiate legal proceedings against us alleging that our patent covering one or more of our drug or biologic candidates is invalid and/or unenforceable. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including novelty, nonobviousness, adequate written description, clarity or enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability is unpredictable.

There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly, for example, such that they do not cover our drug or biologic candidates or decide that we do not have the right to stop the other party from using the claimed invention at issue on the grounds that our or our current or future collaboration partners' patent claims do not cover the claimed invention. Third parties may in the future make claims challenging the inventorship or ownership of our intellectual property. An adverse outcome in a litigation or proceeding involving one or more of our patents could limit our ability to assert those patents against those parties or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products.

Even if we were to establish infringement of our patent rights by a third party, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could adversely affect the market price of our common stock. Moreover, there can be no assurance that we will have sufficient financial or other resources to file, pursue or maintain such infringement claims, which typically last for years before they are concluded and can involve substantial expenses. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings.

Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority or inventorship of inventions with respect to our patents or patent applications or those of any of our future licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our defense of litigation, interference proceedings, or derivation proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. In addition, the uncertainties associated with litigation and administrative proceedings could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties or enter into development partnerships that would help us bring our drug or biologic candidates to market.

***If we are unable to protect the confidentiality of our trade secrets and know-how for our drug or biologic candidates or any future drug or biologic candidates, we may not be able to compete effectively in our proposed markets.***

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our drug or biologic candidate discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants, scientific advisors, contractors and other third parties. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors.

Although our current employment contracts require assignment of inventor's rights of intellectual property to us, and we expect all of our employees and consultants to assign their inventions to us, and although all of our employees, consultants, advisors, and any third parties who have access to our proprietary know-how, information or technology are expected to enter into confidentiality agreements, we cannot provide any assurances that all such agreements have been duly executed or that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business, financial condition or results of operations. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating trade secrets.

***Third-party claims of intellectual property infringement could result in costly litigation or other proceedings and may prevent or delay our development and commercialization efforts.***

Our research and development activities and commercial success depends in part on our ability to develop, manufacture, market and sell our drug or biologic candidates and use our proprietary technology without infringing the patent rights of third parties. Third parties may assert that we are employing their proprietary technology without authorization. We are currently not aware of U.S. or foreign patents or pending patent applications that are owned by one or more third parties and that cover our ETB drug or biologic candidates or therapeutic uses of those ETB drug or biologic candidates. In the future, we may identify such third-party U.S. and non-U.S. issued patents and pending applications. If we identify any such patents or pending applications, we may in the future pursue available proceedings in the U.S. and foreign patent offices to challenge the validity of these patents and patent applications. In addition, or alternatively, we may consider whether to seek to negotiate a license of rights to technology covered by one or more of such patents and patent applications. If any patents or patent applications cover our drug or biologic candidates or technologies or a requisite manufacturing process, we may not be free to manufacture or market our drug or biologic candidates, including MT-5111, MT-6402, or TAK-169, as planned, absent such a license, which may not be available to us on commercially reasonable terms, or at all.

It is also possible that we have failed to identify relevant third-party patents or applications. For example, patent applications filed before November 29, 2000 and patent applications filed after that date, but that will not be filed outside the United States, remain confidential until the patent applications issue as patents. Moreover, it is difficult for industry participants, including us, to identify all third-party patent rights that may be relevant to drug or biologic candidates and technologies with certainty. We may fail to identify relevant patents or patent applications or may identify pending patent applications of potential interest but incorrectly predict the likelihood that such patent applications may issue with claims of relevance to our technology. In addition, we may be unaware of one or more issued patents that would be infringed by the manufacture, sale or use of a current or future drug or biologic candidate, or we may incorrectly conclude that a patent office or court would determine that a third-party patent is invalid, unenforceable or not infringed by our activities. Additionally, pending patent applications that have been published can, subject to specified limitations, be later amended in a manner that could cover our technologies, our drug or biologic candidates or the use of our drug or biologic candidates.

There have been many lawsuits and other proceedings involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and reexamination proceedings before the USPTO and corresponding foreign patent offices. Third parties own numerous U.S. and foreign issued patents and pending patent applications in the fields in which we are developing drug or biologic candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our drug or biologic candidates may be subject to claims of infringement of the patent rights of third parties. Parties making patent infringement claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our drug or biologic candidates. Defense of these claims, regardless of their merit, may involve substantial litigation expense and may require a substantial diversion of resources from our business. In the event of a successful claim of patent infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. Further, if we were to seek a license from the third-party holder of any applicable intellectual property rights, we may not be able to obtain the applicable license rights when needed or on reasonable terms, or at all. Some of our competitors may be able to sustain the costs of complex patent litigation or proceeding more effectively than us due to their substantially greater resources. The occurrence of any of the above events could prevent us from continuing to develop and commercialize one or more of our drug or biologic candidates and our business could materially suffer.

***We may be unsuccessful in obtaining or maintaining third-party intellectual property rights necessary to develop our ETB technologies or to commercialize our drug or biologic candidates and associated methods of use through acquisitions and in-licenses.***

Presently, we have intellectual property rights to our ETB technologies under patent applications that we own and to certain targeting antibody domains through our license agreements. Because our programs may involve a range of ETB targets and antibody domains, which in the future may include targets and antibody domains that require the use of proprietary rights held by third parties, the growth of our business may likely depend in part on our ability to acquire, in-license or use these proprietary rights. In addition, our drug or biologic candidates may require specific formulations or manufacturing technologies to be safe, work effectively or be manufactured efficiently, and these rights may be held by others. We may be unable to acquire or in-license on reasonable terms any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

For example, we have previously collaborated, and may continue to collaborate, with federal, state or international academic institutions to accelerate our preclinical research or development under written agreements with these institutions. Typically, these institutions grant the rights to the collaborator and retain a non-commercial license to all rights as well as retain march-in rights in the situation that the collaborator fails to exercise or commercialize certain covered technologies. Regardless of such initial rights, we may be unable to exercise or commercialize certain funded technologies thereby triggering march-in rights of the funding institution. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us, and vice versa. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment. If we are unable to successfully obtain rights to third-party intellectual property rights, our business, financial condition and prospects for growth could suffer.

If we are unable to successfully obtain and maintain rights to required third-party intellectual property, we may have to abandon development of that drug or biologic candidate or pay additional amounts to the third-party, and our business and financial condition could suffer.

***The patent protection and patent prosecution for some of our drug or biologic candidates may in the future be dependent on third parties.***

While we normally seek to gain the right to fully prosecute the patent applications relating to our drug or biologic candidates, there may be times when certain patents or patent applications relating to our drug or biologic candidates, their compositions, uses or their manufacture may be controlled by our collaboration partners or licensors. If any of our collaboration partners fail to appropriately or broadly prosecute patent applications or maintain patent protection of claims covering any of our drug or biologic candidates, their compositions, uses or their manufacture, our ability to develop and commercialize those drug or biologic candidates may be adversely affected and we may not be able to prevent competitors from making, using, importing, offering to sell or selling competing products. In addition, even where we now have the right to control patent prosecution of patent applications or the maintenance of patents, we have licensed from third parties, presently or in the future, we may still be adversely affected or prejudiced by actions or inactions of our licensors in effect from actions prior to us assuming control over patent prosecution.

***If we fail to comply with obligations in the agreements under which we license intellectual property and other rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.***

We are and will continue to be a party to a number of intellectual property license collaboration and supply agreements that may be important to our business and expect to enter into additional license agreements in the future. Our existing agreements impose, and we expect that future agreements will impose, various diligence, milestone payment, royalty, purchasing and other obligations on us. If we fail to comply with our obligations under these agreements, or if we are subject to a bankruptcy, our agreements may be subject to termination by the licensor or other contract party, in which event we would not be able to develop, manufacture or market products covered by the license or subject to supply commitments.

***We may be subject to claims that our employees, consultants or independent contractors wrongfully used or disclosed alleged confidential information of third parties or that our employees wrongfully used or disclosed alleged trade secrets of their former employers.***

We employ individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including potential competitors. Although we have written agreements with these individuals, and although we make every effort to ensure that our employees, consultants and independent contractors do not use the proprietary information or intellectual property rights of others in their work for us, we may in the future be subject to claims that our employees, consultants or independent contractors wrongfully used or disclosed confidential information of third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful at defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

***Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance fees on any issued patent are due to be paid to the USPTO or to foreign patent agencies in several stages over the lifetime of the patent, and periodic annuities are due to be paid for foreign patent applications in some foreign patent offices. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other requirements during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we or our licensors fail to maintain the patents and patent applications covering our drug or biologic candidates, our competitors might be able to enter the market, which would have a material adverse effect on our business.

***Our failure to comply with data protection laws and regulations could lead to government enforcement actions, private litigation and/or adverse publicity and could negatively affect our operating results and business.***

We are subject to data protection laws and regulations that address privacy and data security. The legislative and regulatory landscape for data protection continues to evolve, and in recent years there has been an increasing focus on privacy and data security issues. In the United States, numerous federal and state laws and regulations, including state data breach notification laws, state health information privacy laws and federal and state consumer protection laws govern the collection, use, disclosure and protection of health-related and other personal information.

Failure to comply with data protection laws and regulations could result in government enforcement actions, which could include civil or criminal penalties, private litigation and/or adverse publicity and could negatively affect our operating results and business. In addition, in May 2016, the EU Parliament adopted the comprehensive General Data Privacy Regulation, or the GDPR, to, among other things, impose more stringent data protection requirements for processors and controllers of personal data and provide for greater penalties and fines for non-compliance, including fines in amounts up to €20 million or 4% of total worldwide annual turnover, whichever is higher. The GDPR became fully effective in May 2018. In addition, in 2018, California adopted a new privacy law, which went into effect on January 1, 2020, that borrows heavily from the GDPR. Complying with the enhanced obligations imposed by the GDPR and other applicable international and U.S. privacy laws and regulations may result in significant costs to our business and require us to amend certain of our business practices. Further, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. The future enactment of more restrictive laws, rules or regulations and/or future enforcement actions or investigations could have a materially adverse impact on us through increased costs or restrictions on our businesses, and non-compliance could result in regulatory penalties and significant legal liability.

**Risks Related to Our Reliance on Third Parties**

***We rely on third parties to conduct our clinical trials, manufacture our drug or biologic candidates and perform other services. If these third parties do not successfully carry out their contractual duties, meet expected timelines, including as a result of the COVID-19 pandemic, or otherwise conduct the trials as required or perform and comply with regulatory requirements, we may not be able to successfully complete clinical development, obtain regulatory approval or commercialize our drug or biologic candidates when expected or at all, and our business could be substantially harmed.***

We have relied upon and plan to continue to rely upon third-party CROs to conduct, monitor and manage our ongoing clinical programs. We rely on these parties for execution of clinical trials and we manage and control only some aspects of their activities. We remain responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our regulatory responsibilities. We and our CROs and other vendors are required to comply with all applicable laws, regulations and guidelines, including those required by the FDA and comparable foreign regulatory authorities for all of our drug or biologic candidates in clinical development. If we, or any of our CROs or vendors, fail to comply with applicable laws, regulations or guidelines, the results generated in our clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot be assured that our CROs or other vendors will meet these requirements, or that upon inspection by any regulatory authority, such regulatory authority will determine that efforts, including any of our clinical trials, comply with applicable requirements. Our failure to comply with these laws, regulations or guidelines may require us to repeat clinical trials, which would be costly and delay the regulatory approval process.

If any of our relationships with these third-party CROs terminates, or they otherwise are subject to quarantines, shelter-in-place orders, shutdowns or other restrictions and must scale back their operations unexpectedly, including as a result of the COVID-19 pandemic, we may not be able to enter into arrangements with alternative CROs in a timely manner or do so on commercially reasonable terms. In addition, our CROs may not prioritize our clinical trials relative to those of other customers, and any turnover in personnel or delays in the allocation of CRO employees by the CRO may negatively affect our clinical trials. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, including as a result of the COVID-19 pandemic, our clinical trials may be delayed or terminated, and we may not be able to meet our current plans with respect to our drug or biologic candidates. CROs also may involve higher costs than anticipated, which could negatively affect our financial condition and operations.

We currently have a cGMP manufacturing facility and we have developed the capability to manufacture drug or biologic candidates for use in the conduct of our clinical trials. We may not be able to manufacture drug or biologic candidates or there may be substantial technical or logistical challenges to supporting manufacturing demand for drug or biologic candidates. We may also fail to comply with cGMP requirements and standards which would require us to not utilize the manufacturing facility to make clinical trial supply. We plan to rely at least in part on third-party manufacturers, and their responsibilities often include purchasing from third-party suppliers the materials necessary to produce our drug or biologic candidates for our clinical trials and regulatory approval. We expect there to be a limited number of suppliers for some of the raw materials that we expect to use to manufacture our drug or biologic candidates, and we may not be able to identify alternative suppliers to prevent a possible disruption of the manufacture of our drug or biologic candidates for our clinical trials, and, if approved, ultimately for commercial sale.

Although we generally do not expect to begin a clinical trial unless we believe we have a sufficient supply of a drug or biologic candidate to complete the trial, any significant delay or discontinuity in the supply of a drug or biologic candidate, or the raw materials or other material components in the manufacture of the drug or biologic candidate, could delay completion of our clinical trials and potential timing for regulatory approval of our drug or biologic candidates, which would harm our business and results of operations. We do not yet have sufficient information to reliably estimate the cost of the commercial manufacturing of our drug or biologic candidates and our current costs to manufacture our drug or biologic candidates may not be commercially feasible, and the actual cost to manufacture our drug or biologic candidates could materially and adversely affect the commercial viability of our drug or biologic candidates. As a result, we may never be able to develop a commercially viable product.

In addition, our reliance on third-party manufacturers exposes us to the following additional risks:

- we may be unable to identify manufacturers to manufacture our drug or biologic candidates on acceptable terms or at all, because the number of qualified potential manufacturers is limited. Following NDA or BLA approval, a change in the manufacturing site could require additional approval from the FDA. This approval would require new testing and compliance inspections;
- our third-party manufacturers might be unable to timely formulate and manufacture our product or produce the quantity and quality required to meet our clinical and commercial needs, if any;

- our third-party manufacturers might be forced to scale back or terminate operations as a result of quarantines, shelter-in-place or similar government orders, or the expectation that such orders, shutdowns or other restrictions could occur, whether related to COVID-19 or other infectious diseases, which could harm our ability to conduct ongoing and future clinical trials of our drug or biologic candidates;
- our future third-party manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our drug or biologic candidates;
- drug or biologic manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMPs and other government regulations and corresponding foreign standards, and we do not have control over third-party manufacturers' compliance with these regulations and standards;
- if any third-party manufacturer makes improvements in the manufacturing process for our products, we may not own or be able to license, or we may have to share, the intellectual property rights to any improvements made by our third-party manufacturers in the manufacturing process for our drug or biologic candidates; and
- our third-party manufacturers could breach or terminate their agreements with us.

Each of these risks could delay our clinical trials, the approval, if any, of our drug or biologic candidates, or the commercialization of our drug or biologic candidates or result in higher costs or deprive us of potential product revenue. In addition, we rely on third parties to perform release testing on our drug or biologic candidates prior to delivery to subjects in our clinical trials. If these tests are not appropriately conducted and test data are not reliable, subjects in our clinical trials, or patients treated with our drug or biologic candidates, if any are approved in the future, could be put at risk of serious harm, which could result in product liability suits.

***We have entered into a Master Collaboration Agreement ("Vertex Collaboration Agreement") with Vertex Pharmaceuticals Incorporated ("Vertex") and, pursuant to the terms of that agreement, could become dependent on Vertex for development, manufacturing, regulatory and commercialization activities with respect to certain of our ETB products for novel targeted biologic therapies.***

In November 2019, we entered into the Vertex Collaboration Agreement, pursuant to which we agreed to leverage our ETB technology platform to discover and develop novel targeted biologic therapies for applications outside of oncology. Pursuant to the terms of the Vertex Collaboration Agreement, we granted Vertex an exclusive option to obtain an exclusive license to exploit one or more ETB drug or biologic candidates that are discovered by us against up to two designated targets. Vertex has selected an initial target and has the option to designate one additional target within specified time limits.

Under the Vertex Collaboration Agreement, Vertex paid us an upfront payment of $38 million, consisting of $23 million in cash and a $15 million equity investment pursuant to a Share Purchase Agreement. In addition to the upfront payments, we may also receive an additional $22 million through the exercise of the options to license ETB drug or biologic candidates or to add an additional target. We are required to provide, and Vertex will reimburse us for, certain mutually agreed manufacturing technology transfer activities. Vertex may never choose to exercise its option and we cannot predict whether Vertex will, if ever, exercise its option.

We may, for each target under the Vertex Collaboration Agreement, receive up to an additional $180 million in milestone payments upon the achievement of certain development and regulatory milestone events and up to an additional $70 million in milestone payments upon the achievement of certain sales milestone events. We will also be entitled to receive, subject to certain reductions, tiered mid-single digit royalties as percentages of calendar year net sales, if any, on any licensed ETB product. The milestones that trigger a payment or royalties under the Vertex Collaboration Agreement may never be reached and failure to do so could harm our business and financial condition.

We will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise by Vertex of its option for a development candidate, Vertex will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate. We cannot control whether Vertex will devote sufficient attention or resources to this collaboration or will proceed in an expeditious manner. Even if the FDA or other regulatory agencies approve any of the licensed ETB drug or biologic candidates, Vertex may elect not to proceed with the commercialization of the resulting product in one or more countries.

Unless earlier terminated, the Vertex Collaboration Agreement will expire (i) on a country-by-country basis and licensed product-by-licensed product basis on the date of expiration of all payment obligations under the Vertex Collaboration Agreement with respect to such licensed product in such country and (ii) in its entirety upon the expiration of all payment obligations thereunder with respect to all licensed products in all countries or upon Vertex's decision not to exercise any option on or prior to the applicable

deadlines. Vertex has the right to terminate the Vertex Collaboration Agreement for convenience upon prior written notice to Company. Either party has the right to terminate the Vertex Collaboration Agreement (a) for the insolvency of the other party or (b) subject to specified cure periods, in the event of the other party's uncured material breach. If Vertex terminates the Vertex Collaboration Agreement, it will result in a delay in or could prevent us from further developing or commercializing products directed to these targets and will delay and could prevent us from obtaining revenues for such product. Further, disputes may arise between us and Vertex, which may delay or cause the termination of this collaboration, result in significant litigation, cause Vertex to act in a manner that is not in our best interest or cause us to seek another collaborator or proceed with development, commercialization and funding on our own. If we seek a new collaborator but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct the development or commercialization of product directed to these new targets ourselves, we may have to curtail or abandon that development or commercialization, which could harm our business.

***We have entered into a Collaboration Agreement ("BMS Collaboration Agreement") with Bristol Myers Squibb Company ("Bristol Myers Squibb") and, pursuant to the terms of that agreement, could become dependent on Bristol Myers Squibb for development, manufacturing, regulatory and commercialization activities with respect to certain of our ETB products directed to multiple targets.***

In February 2021, we entered into the BMS Collaboration Agreement, pursuant to which we agreed to leverage our ETB technology platform to discover and develop novel products directed to multiple targets. Pursuant to the terms of the BMS Collaboration Agreement, we granted Bristol Myers Squibb a series of exclusive options to obtain exclusive licenses under our intellectual property to exploit products containing ETBs directed against certain targets designated by Bristol Myers Squibb. Bristol Myers Squibb may never choose to exercise its option and we cannot predict whether Bristol Myers Squibb will, if ever, exercise its option.

Under the BMS Collaboration Agreement, Bristol Myers Squibb paid us an upfront payment of $70 million. In addition to the upfront payment, we may receive near term and development and regulatory milestone payments of up to an additional $874.5 million. We will also be eligible to receive up to an additional $450 million in payments upon the achievement of certain sales milestones. We will also be entitled to receive, subject to certain reductions, tiered royalties ranging from mid-single digits up to mid-teens as percentages of calendar year net sales, if any, on any licensed product. The milestones that trigger a payment or royalties under the BMS Collaboration Agreement may never be reached and failure to do so could harm our business and financial condition.

We will be responsible for conducting the research activities through the designation, if any, of one or more development candidates. Upon the exercise by Bristol Myers Squibb of its option for a development candidate, Bristol Myers Squibb will be responsible for all development, manufacturing, regulatory and commercialization activities with respect to that development candidate, subject to the terms of the BMS Collaboration Agreement. We cannot control whether Bristol Myers Squibb will devote sufficient attention or resources to this collaboration or will proceed in an expeditious manner. Even if the FDA or other regulatory agencies approve any of the licensed ETB drug or biologic candidates, Bristol Myers Squibb may elect not to proceed with the commercialization of the resulting product in one or more countries.

Unless earlier terminated, the BMS Collaboration Agreement will expire (i) on a country-by-country basis and licensed product-by-licensed product basis on the date of expiration of the royalty payment obligations under the BMS Collaboration Agreement with respect to such licensed product in such country and (ii) in its entirety upon the earlier of (a) the expiration of the royalty payment obligations under the BMS Collaboration Agreement with respect to all licensed products in all countries or (b) upon Bristol Myers Squibb's decision not to exercise any option on or prior to the applicable option deadlines. Bristol Myers Squibb has the right to terminate the BMS Collaboration Agreement for convenience upon prior written notice to Company. Either party has the right to terminate the BMS Collaboration Agreement (a) for the insolvency of the other party or (b) subject to specified cure periods, in the event of the other party's uncured material breach. We have the right upon prior written notice to terminate the BMS Collaboration Agreement in the event that Bristol Myers Squibb or any of its affiliates asserts a challenge against our patents. If Bristol Myers Squibb terminates the BMS Collaboration Agreement, it will result in a delay in or could prevent us from further developing or commercializing products directed to these targets and will delay and could prevent us from obtaining revenues for such product. Further, disputes may arise between us and Bristol Myers Squibb, which may delay or cause the termination of this collaboration, result in significant litigation, cause Bristol Myers Squibb to act in a manner that is not in our best interest or cause us to seek another collaborator or proceed with development, commercialization and funding on our own. If we seek a new collaborator but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct the development or commercialization of product directed to these new targets ourselves, we may have to curtail or abandon that development or commercialization, which could harm our business.

***We depend on third parties and intend to continue to license or collaborate with third parties and may be unable to realize the potential benefits of any collaboration.***

Our business strategy, along with our short- and long-term operating results depend in part on our ability to execute on existing strategic collaborations and to license or partner with new strategic partners. In addition to the Vertex Collaboration Agreement and the BMS Collaboration Agreement, we have multi-target research and development collaborations ongoing with Takeda and expect to seek to collaborate with other partners in the future. Even if we are successful at entering into one or more additional collaborations with respect to the development and/or commercialization of one or more drug or biologic candidates, there is no guarantee that any of these collaborations will be successful. We believe collaborations allow us to leverage our resources and technologies and we anticipate deriving some revenues from research and development fees, license fees, milestone payments, and royalties from our collaborative partner. Collaborations may pose a number of risks, including the following:

- collaboration partners often have significant discretion in determining the efforts and resources that they will apply to the collaboration, and may not commit sufficient resources to the development, marketing or commercialization of the product or products that are subject to the collaboration;
- collaboration partners may not perform their obligations as expected or may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner;
- any such collaboration may significantly limit our share of potential future profits from the associated program, and may require us to relinquish potentially valuable rights to our current drug or biologic candidates, potential products or proprietary technologies or grant licenses on terms that are not favorable to us;
- collaboration partners may cease to devote resources to the development or commercialization of our drug or biologic candidates if the collaboration partners view our drug or biologic candidates as competitive with their own products or drug or biologic candidates;
- disagreements with collaboration partners, including disagreements over proprietary rights, contract interpretation or the course of development, might cause delays or termination of the development or commercialization of drug or biologic candidates, and might result in legal proceedings, which would be time consuming, distracting and expensive;
- collaboration partners may be impacted by changes in their strategic focus or available funding, or business combinations involving them, which could cause them to divert resources away from the collaboration;
- collaboration partners may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- the collaborations may not result in us achieving revenues sufficient to justify such transactions;
- by entering into certain collaborations, we may forego opportunities to collaborate with other third parties who do not wish to be associated with our existing third-party strategic partners; and
- collaborations may be terminated and, if terminated, may result in a need for us to raise additional capital to pursue further development or commercialization of the applicable drug or biologic candidate.

There can be no assurance that we will be successful at establishing collaborative arrangements on acceptable terms or at all, that collaborative partners will not terminate funding before the completion of projects, that our collaborative arrangements will result in successful product commercialization, or that we will derive any revenues from such arrangements. Potential collaborators may reject collaborations based upon their assessment of our financial, regulatory or intellectual property position and our internal capabilities. Additionally, the negotiation, documentation and implementation of collaborative arrangements are complex and time-consuming. Our discussions with potential collaborators may not lead to new collaborations on favorable terms and may have the potential to provide collaborators with access to our key intellectual property rights.

***We enter into various contracts in the normal course of our business in which we indemnify the other party to the contract. In the event we have to perform under these indemnification provisions, it could have a material adverse effect on our business, financial condition and results of operations.***

In the normal course of business, we have and expect to continue periodically to enter into academic, commercial, service, collaboration, licensing, consulting and other agreements that contain indemnification provisions. With respect to our academic and other research agreements, we typically indemnify the institution and related parties from losses arising from claims relating to our drug or biologic candidates, processes or services made, used, or performed pursuant to the agreements, and from claims arising from our or our sublicensees' exercise of rights under the agreement. With respect to our collaboration agreements, we indemnify our

collaboration partners from any third-party product liability claims that could result from the production or use of thedrug or biologic candidate, as well as for alleged infringements of any patent or other intellectual property right owned by a third party. With respect to consultants, we often indemnify them from claims arising from the good faith performance of their services.

If our obligations under an indemnification provision exceed applicable insurance coverage or if we were denied insurance coverage, our business, financial condition and results of operations could be adversely affected. Similarly, if we are relying on a collaborator to indemnify us and the collaborator is denied insurance coverage or the indemnification obligation exceeds the applicable insurance coverage, and if the collaborator does not have other assets available to indemnify us, our business, financial condition and results of operations could be adversely affected.

**Risks Related to Commercialization of Our Drug Candidates**

***We currently have limited marketing and sales experience. If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our drug or biologic candidates, we may be unable to generate any revenue.***

Although some of our employees may have marketed, launched and sold other pharmaceutical products in the past while employed at other companies, we have no experience selling and marketing our drug or biologic candidates, and we currently have no marketing or sales organization. To successfully commercialize any products that may result from our development programs, we will need to find one or more collaboration partners to commercialize our products or invest in and develop these capabilities, either on our own or with others, which would be expensive, difficult and time consuming. Any failure or delay in the timely development of our internal commercialization capabilities could adversely impact the potential for success of our products.

If commercialization collaboration partners do not commit sufficient resources to commercialize our future drugs or biologics, and if we are unable to develop the necessary marketing and sales capabilities on our own, we will be unable to generate sufficient product revenue to sustain or grow our business. We may be competing with companies that currently have extensive and well-funded marketing and sales operations, particularly in the markets our drug or biologic candidates are intended to address. Without appropriate capabilities, whether directly or through third-party collaboration partners, we may be unable to compete successfully against these more established companies.

***We may attempt to form additional collaborations in the future with respect to our drug or biologic candidates, but we may not be able to do so, which may cause us to alter our development and commercialization plans.***

We may attempt to form strategic collaborations, create joint ventures or enter into licensing arrangements with third parties with respect to our programs in addition to those that we currently have that we believe will complement or augment our existing business. We may face significant competition in seeking appropriate strategic collaboration partners, and the negotiation process to secure appropriate terms is time consuming and complex. We may not be successful in our efforts to establish such a strategic collaboration for any drug or biologic candidates and programs on terms that are acceptable, or at all. This may be because our drug or biologic candidates and programs may be deemed to be at too early of a stage of development for collaborative effort, our research and development pipeline may be viewed as insufficient, the competitive or intellectual property landscape may be viewed as too intense or risky, and/or third parties may not view our drug or biologic candidates and programs as having sufficient potential for commercialization, including the likelihood of an adequate safety and efficacy profile.

Any delays in identifying suitable collaboration partners and entering into agreements to develop and/or commercialize our drug or biologic candidates could delay the development or commercialization of our drug or biologic candidates, which may reduce their competitiveness even if they reach the market. Absent a strategic collaborator, we would need to undertake development and/or commercialization activities at our own expense. If we elect to fund and undertake development and/or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we are unable to do so, we may not be able to develop our drug or biologic candidates or bring them to market and our business may be materially and adversely affected.

***If the market opportunities for our drug or biologic candidates are smaller than we believe they are, we may not meet our revenue expectations and, even if a drug or biologic candidate receives marketing approval, our business may suffer. Because the patient populations in the market for our drug or biologic candidates may be small, we must be able to successfully identify patients and acquire a significant market share to achieve profitability and growth.***

Our estimates for the addressable patient population and our estimates for the prices we can charge for our drug or biologic candidates may differ significantly from the actual market addressable by our drug or biologic candidates and are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific literature, patient foundations or market research, and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these

diseases. The number of patients may turn out to be lower than expected Additionally, the potentially addressable patient population for each of our drug or biologic candidates may be limited or may not be amenable to treatment with our drug or biologic candidates, and new patients may become increasingly difficult to identify or gain access to, which would adversely affect our business, financial condition, results of operations and prospects.

***We face substantial competition, and our competitors may discover, develop or commercialize drugs faster or more successfully than we do.***

The development and commercialization of new drug products is highly competitive. We face competition from large pharmaceutical companies, specialty pharmaceutical companies, biotechnology companies, universities and other research institutions worldwide with respect to MT-5111, TAK-169, MT-6402 and the other drug or biologic candidates that we may seek to develop or commercialize in the future. We are aware that companies including the following have products marketed or in development that could compete directly or indirectly with ETBs: Roche/Genentech, Merck, Bayer, Takeda, AbbVie, Seagen, Immunogen, Morphosys, Genmab, Bristol Myers Squibb, Novartis, Regeneron, Janssen, Xencor, Amgen, Macrogenics, Astra Zeneca, Lilly, Merck KGaA, Pfizer, Merus, Sanofi, Mentrik Biotech, Merrimack Pharmaceuticals, Spectrum Pharmaceuticals, Unum Therapeutics, Daiichi Sankyo, Karyopharm, ADC Therapeutics, Bluebird Bio, Gilead, ZymeWorks, Forty Seven, Epizyme, GlaxoSmithKline, Incyte, TG Therapeutics, Versatem and F-Star. Our competitors may succeed in developing, acquiring or licensing technologies or drug or biological products that are more effective or less costly than MT-5111, TAK-169, MT-6402 or any other drug or biologic candidates that we are currently developing or that we may develop, which could render our drug or biologic candidates obsolete and noncompetitive.

Many of our competitors have materially greater name recognition and financial, manufacturing, marketing, research and drug development resources than we do. Additional mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. Large pharmaceutical companies in particular have extensive expertise in preclinical and clinical testing and in obtaining regulatory approvals for drugs, including biologics. In addition, academic institutions, government agencies, and other public and private organizations conducting research may seek patent protection with respect to potentially competitive products or technologies. These organizations may also establish exclusive collaborative or licensing relationships with our competitors.

If our competitors obtain marketing approval from the FDA or comparable foreign regulatory authorities for their drug or biologic candidates more rapidly than we do, it could result in our competitors establishing a strong market position before we are able to enter the market. In addition, third-party payors, including governmental and private insurers, also may encourage the use of generic products. For example, if MT-5111, TAK-169 or MT-6402 is ultimately approved, it may be priced at a significant premium over other competitive products. This may make it difficult for MT-5111, TAK-169, MT-6402 or any other future drugs or biologics to compete with these products. Failure of MT-5111, TAK-169, MT-6402 or other drug or biologic candidates to effectively compete against established treatment options or in the future with new products currently in development would harm our business, financial condition, results of operations and prospects.

***The commercial success of any of our current or future drug or biologic candidates will depend upon the degree of market acceptance by physicians, patients, third-party payors, and others in the medical community.***

Even with the approvals from the FDA and comparable foreign regulatory authorities, the commercial success of our drugs will depend in part on the health care providers, patients and third-party payors accepting our drug or biologic candidates as medically useful, cost-effective and safe. Any product that we bring to the market may not gain market acceptance by physicians, patients or third-party payors. The degree of market acceptance of any of our drug candidates will depend on a number of factors, including but not limited to:

- the efficacy of the product as demonstrated in clinical trials and potential advantages over competing treatments;
- the prevalence and severity of the disease and any side effects of the product;
- the clinical indications for which approval is granted, including any limitations or warnings contained in a product's approved labeling;
- the convenience and ease of administration of the product;
- the cost of treatment;

- the perceptions by the medical community, physicians, and patients, regarding the safety and effectiveness of our products and the willingness of the patients and physicians to accept these therapies;
- the perceived ratio of risk and benefit of these therapies by physicians and the willingness of physicians to recommend these therapies to patients based on such risks and benefits;
- the marketing, sales, supply and distribution support for the product;
- the publicity concerning our drugs or biologics or competing products and treatments; and
- the pricing and availability of third-party insurance coverage and reimbursement.

Even if a product displays a favorable efficacy and safety profile upon approval, market acceptance of the product remains uncertain. Efforts to educate the medical community and third-party payors on the benefits of the drugs may require significant investment and resources and may never be successful. If our drugs or biologics fail to achieve an adequate level of acceptance by physicians, patients, third-party payors and other health care providers, we will not be able to generate sufficient revenue to become or remain profitable.

Our ability to negotiate, secure and maintain third-party coverage and reimbursement for our drug or biologic candidates may be affected by political, economic and regulatory developments in the United States, the European Union and other jurisdictions. Governments continue to impose cost containment measures, and third-party payors are increasingly challenging prices charged for medicines and examining their cost effectiveness, in addition to their safety and efficacy. These and other similar developments could significantly limit the degree of market acceptance of any drug or biologic candidate of ours that receives marketing approval in the future.

***We may not be successful in any efforts to identify, license, discover, develop or commercialize additional drug or biologic candidates.***

Although a substantial amount of our effort has focused on the continued clinical testing, potential approval and commercialization of our existing drug or biologic candidates, the success of our business is also expected to depend in part upon our ability to identify, license, discover, develop or commercialize additional drug or biologic candidates. Research programs to identify new drug or biologic candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential programs or drug or biologic candidates that ultimately prove to be unsuccessful. Our research programs or licensing efforts may fail to yield additional drug or biologic candidates for clinical development and commercialization for a number of reasons, including but not limited to the following:

- our research or business development methodology or search criteria and process may be unsuccessful in identifying potential drug or biologic candidates;
- we may not be able or willing to assemble sufficient resources to acquire or discover additional drug or biologic candidates;
- our drug or biologic candidates may not succeed in preclinical or clinical testing;
- our drug or biologic candidates may be shown to have harmful side effects or may have other characteristics that may make them unmarketable or unlikely to receive marketing approval;
- competitors may develop alternatives that render our drug or biologic candidates obsolete or less attractive;
- drug or biologic candidates we develop may be covered by third parties' patents or other exclusive rights;
- the market for a drug or biologic candidate may change during our program so that such a drug or biologic candidate may become unreasonable or infeasible to continue to develop;
- a drug or biologic candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a drug or biologic candidate may not be accepted as safe and effective by patients, the medical community or third-party payors.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, or we may not be able to identify, license, discover, develop or commercialize additional drug or biologic candidates, which would have a material adverse effect on our business, financial condition or results of operations and could potentially cause us to cease operations.

***Failure to obtain or maintain adequate reimbursement or insurance coverage for drugs, if any, could limit our ability to market those drugs and decrease our ability to generate revenue.***

The pricing, coverage, and reimbursement of our approved drugs, if any, must be sufficient to support our commercial efforts and other development programs, and the availability and adequacy of coverage and reimbursement by third-party payors, including governmental and private insurers, are essential for most patients to be able to afford medical treatments. Sales of our approved drugs, if any, will depend substantially, both domestically and abroad, on the extent to which the costs of our approved drugs, if any, will be paid for or reimbursed by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or government payors and private payors. If coverage and reimbursement are not available, or are available only in limited amounts, we may have to subsidize or provide drugs for free or we may not be able to successfully commercialize our drugs.

In addition, there is significant uncertainty related to the insurance coverage and reimbursement for newly approved drugs. In the United States, the principal decisions about coverage and reimbursement for new drugs are typically made by the Centers for Medicare and Medicaid Services, or CMS, an agency within the United States Department of Health and Human Services, as CMS decides whether and to what extent a new drug will be covered and reimbursed under Medicare. Private payors tend to follow the coverage reimbursement policies established by CMS to a substantial degree. It is difficult to predict what CMS will decide with respect to reimbursement for novel drug or biologic candidates such as ours and what reimbursement codes our drug or biologic candidates may receive if approved.

Outside the United States, international operations are generally subject to extensive governmental price controls and other price-restrictive regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries has and will continue to put pressure on the pricing and usage of drugs. In many countries, the prices of drugs are subject to varying price control mechanisms as part of national health systems. Price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our drugs, if any. Accordingly, in markets outside the United States, the potential revenue may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and private payors in the United States and abroad to limit or reduce healthcare costs may result in restrictions on coverage and the level of reimbursement for new drugs and, as a result, they may not cover or provide adequate payment for our drugs, if any. We expect to experience pricing pressures in connection with drugs due to the increasing trend toward managed healthcare, including the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, and prescription drugs or biologics in particular, has and is expected to continue to increase in the future. As a result, profitability of our drugs, if any, may be more difficult to achieve even if any of them receive regulatory approval.

**Risks Related to Ownership of Our Common Stock**

***The market price of our common stock is expected to be volatile, and the market price of the common stock may drop.***

The market price of our common stock could be subject to significant fluctuations. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile, and disruptions in the financial markets in general and more recently due to the COVID-19 pandemic have further increased such volatility. Some of the factors that may cause the market price of our common stock to fluctuate include:

- our ability to obtain regulatory approvals for MT-5111, TAK-169, MT-6402 or other drug or biologic candidates, and delays or failures to obtain such approvals;
- adverse results, clinical holds, or delays in the clinical trials of our drug or biologic candidates or any future clinical trials we may conduct, or changes in the development status of our drug or biologic candidates;
- failure of any of our drug or biologic candidates, if approved, to achieve commercial success;
- failure to maintain our existing third-party license and supply agreements;
- failure by us or our licensors to prosecute, maintain, or enforce our intellectual property rights;
- changes in laws or regulations applicable to our drug or biologic candidates;
- any inability to obtain adequate supply of our drug or biologic candidates or the inability to do so at acceptable prices;
- adverse regulatory authority decisions;
- introduction of new products, services or technologies by our competitors;
- failure to meet or exceed financial and development projections we may provide to the public;

- failure to meet or exceed the financial and development projections of the investment community;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic collaborations, joint ventures or capital commitments by us or our competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and our ability to obtain patent protection for our technologies;
- additions or departures of key personnel;
- significant lawsuits, including patent or stockholder litigation;
- failure by securities or industry analysts to publish research or reports about our business, or issuance of any adverse or misleading opinions by such analysts regarding our business or stock;
- changes in the market valuations of similar companies;
- general market or macroeconomic conditions;
- sales of our common stock by us or our stockholders in the future;
- the trading volume of our common stock;
- the issuance of additional shares of our preferred stock or common stock, or the perception that such issuances may occur, including through our "at-the-market" offering program or any sales of our preferred stock or common stock by our stockholders in the future;
- announcements by commercial partners or competitors of new commercial products, clinical progress or the lack thereof, significant contracts, commercial relationships or capital commitments;
- adverse publicity relating to ETB drugs generally, including with respect to other drugs and potential drugs in such markets;
- the introduction of technological innovations or new therapies that compete with our potential drugs;
- changes in the structure of health care payment systems;
- disruptions in the financial markets in general and more recently due to the COVID-19 pandemic; and
- period-to-period fluctuations in our financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of our common stock.

Additionally, a decrease in our stock price may cause our common stock to no longer satisfy the continued listing standards of The Nasdaq Global Select Market. If we are not able to maintain the requirements for listing on The Nasdaq Global Select Market, we could be delisted, which could have a materially adverse effect on our ability to raise additional funds as well as the price and liquidity of our common stock.

***Future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could cause our stock price to fall.***

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of our common stock could decline. As of March 31, 2021, a total of 56,082,931 shares of our common stock were outstanding. Any sales of those shares or any perception in the market that such sales may occur could cause the trading price of our common stock to decline.

In addition, shares of our common stock that are either subject to outstanding options or reserved for future issuance under our equity incentive plan will be eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

***Future sales and issuances of our common stock, securities convertible into common stock, or rights to purchase common stock, including pursuant to our equity incentive plans, the Sales Agreement, or otherwise, could result in dilution of the percentage ownership of our stockholders and could cause our stock price to fall.***

Even after giving effect to the funds raised in the past, we expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner in which we may determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors in a prior transaction may be materially diluted. Additionally, new investors could gain rights, preferences and privileges senior to those of existing holders of our common stock. Further, any future sales of our common stock by us or resales of our common stock by our existing stockholders could cause the market price of our common stock to decline.

Pursuant to our 2018 Equity Incentive Plan, or the 2018 Plan, we are authorized and have available to grant equity awards to our employees, directors and consultants shares of our common stock reserved for issuance pursuant to the 2018 Plan which includes potential forfeitures and cancellations of outstanding stock options from the 2004 Equity Incentive Plan, the 2009 Stock Plan, and 2014 Equity Incentive Plan.

In July 2020, we raised gross proceeds of approximately $50.0 million through at-the-market sales of our common stock pursuant to our ATM facility. We sold approximately 3.6 million shares of our common stock at a purchase price of $12.00 per share and 0.5 million shares at a purchase price of $12.70, in each case the market price at the time of sale. These sales constituted the full available dollar amount under our then-current ATM facility, and, with such completion, this ATM facility terminated.

On August 7, 2020, we filed with the SEC a registration statement on Form S-3 for $300.0 million of securities (the "Shelf Registration Statement"), inclusive of a $100.0 million ATM program. This Shelf Registration Statement is in replacement of our existing registration statement on Form S-3 and incorporates the unsold balance remaining thereto. The SEC declared effective the Shelf Registration Statement effective on August 17, 2020 and we may make sales of securities from time to time, depending on market conditions, pursuant to the Shelf Registration Statement.

Pursuant to the Sales Agreement with Cowen, we may offer and sell up to $100,000,000 of our common stock from time to time through Cowen as our sales agent. Sales of the shares of our common stock, if any, may be made by any means permitted by law and deemed to be an "at-the-market" offering as defined in Rule 415 of the Securities Act and will generally be made by means of brokers' transactions on the NASDAQ Global Market or otherwise at market prices prevailing at the time of sale, or as otherwise agreed with Cowen. To date, we have not sold any shares of our common stock under the Sales Agreement. Whether we choose to affect future sales under the Sales Agreement will depend upon a variety of factors, including, among others, market conditions and the trading price of our common stock relative to other sources of capital. The issuance from time to time of these new shares of common stock under the Sales Agreement or in any other equity offering, or the perception that such sales may occur, could have the effect of depressing the market price of our common stock.

Any future grants of options, warrants or other securities exercisable or convertible into our common stock, or the exercise or conversion of such shares, and any sales of such shares in the market, could have an adverse effect on the market price of our common stock.

***We have broad discretion in the use of our cash reserves and may not use these reserves effectively or as anticipated by stockholders.***

We have broad discretion over the use of our cash reserves, including the proceeds from our previous financings, including from the sale of shares of common stock under the Sales Agreement and from our public offerings in November 2019 and February 2021. Our stockholders may not agree with our decisions, and our use of these funds may not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could compromise our ability to pursue our growth strategy, result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our drug or biologic candidates. Pending their use, we may invest our cash reserves in a manner that does not produce income or that loses value. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure by our management to apply these funds effectively could have an adverse effect on our financial condition, results of operations or the trading price of our common stock.

***We may incur significant costs from class action litigation due to our expected stock volatility.***

Our stock price may fluctuate for many reasons, including as a result of public announcements regarding the progress of our development efforts or the development efforts of future collaboration partners or competitors, the addition or departure of our key personnel, variations in our quarterly operating results and changes in market valuations of biopharmaceutical and biotechnology companies.

This risk is especially relevant to us because biopharmaceutical and biotechnology companies have experienced significant stock price volatility in recent years. When the market price of a stock has been volatile, as our stock price may be, holders of that stock have occasionally brought securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit of this type against us, even if the lawsuit is without merit, it could result in substantial costs for defending the lawsuit and diversion of the time, attention and resources of our board of directors and management, which could significantly harm our profitability and reputation.

***Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.***

Provisions of Delaware law, where we are incorporated, our amended and restated certificate of incorporation and our amended and restated bylaws may discourage, delay or prevent a merger or acquisition that our stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- authorizing our board of directors to issue "blank check" preferred stock without any need for approval by stockholders;
- providing for a classified board of directors with staggered three-year terms;
- requiring supermajority stockholder votes to effect certain amendments to our amended and restated certificate of incorporation and amended and restated bylaws;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent; and
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

***We can issue and have issued shares of preferred stock, which may adversely affect the rights of holders of our common stock.***

Our amended and restated Certificate of Incorporation authorizes us to issue up to 2,000,000 shares of preferred stock with designations, rights, and preferences determined from time-to-time by our Board of Directors. Accordingly, our Board of Directors is empowered, without stockholder approval, to issue preferred stock with dividend, liquidation, conversion, voting or other rights superior to those of holders of our common stock. For example, an issuance of shares of preferred stock could:

- adversely affect the voting power of the holders of our common stock;
- make it more difficult for a third party to gain control of us;
- discourage bids for our common stock at a premium;
- limit or eliminate any payments that the holders of our common stock could expect to receive upon our liquidation; or
- otherwise adversely affect the market price or our common stock.

***Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.***

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, or the DGCL, our amended and restated bylaws and our indemnification agreements that we have entered into with our directors and executive officers provide that:

- We will indemnify our directors and executive officers for serving us in those capacities or for serving other related business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- We may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law.
- We are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons.
- We may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors, officers, employees and agents.

***We have never paid dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future.***

We have never declared or paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

***We incur, and will continue to incur, costs and expect significantly increased costs as a result of operating as a public company, and our management is now required to devote substantial time to new compliance initiatives.***

As a public company listed on The Nasdaq Global Select Market, and particularly after we cease to be a "smaller reporting company", we are incurring and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company or as a public company prior to the loss of such specified statuses. We are subject to the reporting requirements of the Exchange Act, as well as various requirements imposed by the Sarbanes-Oxley Act, rules subsequently adopted by the SEC and Nasdaq to implement provisions of the Sarbanes-Oxley Act, and the Dodd-Frank Wall Street Reform and Consumer Protection Act. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate. The listing requirements of The Nasdaq Global Select Market require that we satisfy certain corporate governance requirements relating to director independence, distributing annual and interim reports, stockholder meetings, approvals and voting, soliciting proxies, conflicts of interest and a code of conduct, each of which requires additional attention and effort of management and our board of directors and additional costs.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We also expect that we will need to hire additional accounting, finance and other personnel in connection with our efforts to comply with the requirements of being a public company, and our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors and committees thereof or as executive officers.

***Our executive officers, directors and principal stockholders have the ability to significantly influence all matters submitted to our stockholders for approval.***

As of March 31, 2021, our directors, executive officers, and stockholders beneficially owning 5% or more of our shares or that may be affiliated with our board members, beneficially owned, in the aggregate, approximately 51% of our outstanding shares of common stock. As a result, if these stockholders were to choose to act together, they would be able to significantly influence almost all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets.

***Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware is the exclusive forum for specified disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or other employees.***

Our amended and restated bylaws provide, to the fullest extent permitted by law, that the Court of Chancery of the State of Delaware will be the exclusive forum for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a breach of fiduciary duty; (3) any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, or the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws; or (4) any action asserting a claim against us that is governed by the internal affairs doctrine. This exclusive forum provision does not apply to suits brought to enforce a duty or liability created by the Exchange Act. It could apply, however, to a suit that falls within one or more of the categories enumerated in the exclusive forum provision and asserts claims under the Securities Act, in as much as Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rule and regulations thereunder. There is uncertainty as to whether a court would enforce such provision with respect to claims under the Securities Act, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provisions contained in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations and financial condition.

***If securities or industry analysts do not publish, or cease publishing, research or reports, or publish unfavorable research or reports, about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced, in part, by the research and reports that industry or financial research analysts publish about us and our business. We do not have any control over these analysts. If only a few securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively affected and there can be no assurance that analysts will provide favorable coverage. If securities or industry analysts who initiate coverage downgrade our stock or publish inaccurate or unfavorable research about our business or our market, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and any trading volume to decline.

***Having availed ourselves of scaled disclosure available to smaller reporting companies, we cannot be certain if such reduced disclosure will make our common stock less attractive to investors.***

Under Section 12b-2 of the Exchange Act, a "smaller reporting company" is a company that is not an investment company, an asset backed issuer, or a majority-owned subsidiary of a parent company. Effective September 10, 2018, the definition of a "smaller reporting company" was amended to include companies with a public float of less than $250 million as of the last business day of its most recently completed second fiscal quarter or, if such public float is less than $700 million, had annual revenues of less than $100 million during the most recently completed fiscal year. Smaller reporting companies are permitted to provide simplified executive compensation disclosure in their filings; they are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal controls over financial reporting; and they have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. At March 31, 2021, we qualified as a smaller reporting company. For as long as we continue to be a smaller reporting company, we expect that we will take advantage of the reduced disclosure obligations available to us as a result of those respective classifications. Decreased disclosure in our SEC filings as a result of our having availed ourselves of scaled disclosure may make it harder for investors to analyze our results of operations and financial prospects.

**Risks Related to Our Business Operations**

***Our future success depends in part on our ability to retain our Chief Executive Officer and Chief Scientific Officer and to attract, retain, and motivate other qualified personnel.***

We are highly dependent on Eric E. Poma, Ph.D., our Chief Executive Officer and Chief Scientific Officer, the loss of whose services may adversely impact the achievement of our objectives. Dr. Poma could leave our employment at any time, as he is an "at will" employee. Recruiting and retaining other qualified employees, consultants and advisors for our business, including scientific and technical personnel, will also be crucial to our success. There is currently a shortage of highly qualified personnel in our industry, which is likely to continue. Additionally, this shortage of highly qualified personnel is particularly acute in the area where we are located. As a result, competition for personnel is intense and the turnover rate can be high. We may not be able to attract and retain personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for individuals with similar skill sets. In addition, failure to succeed in development and commercialization of our drug or biologic candidates may make it more challenging to recruit and retain qualified personnel. The inability to recruit and retain qualified personnel, or the loss of the services of Dr. Poma may impede the progress of our research, development and commercialization objectives and would negatively impact our ability to succeed in our product development strategy.

***We will need to continue to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.***

At March 31, 2021, we had 247 full-time employees and 3 part-time and temporary employees. As our development and commercialization plans and strategies develop, we expect to need additional managerial, operational, sales, marketing, financial, legal and other resources. Our management may need to divert its attention away from its day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of additional drug or biologic candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected or budgeted, our ability to generate and/or grow revenue could be reduced and we may not be able to implement our currently anticipated business strategy. Our future financial performance and our ability to commercialize drug or biologic candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth. Failure to manage this growth could disrupt our business operations and negatively impact our ability to achieve success.

***Our financial condition, clinical development efforts, and results of operations could be adversely affected by the ongoing coronavirus pandemic.***

Any outbreak of contagious diseases or other adverse public health developments, could have a material and adverse effect on our business operations. Such adverse effects could include disruptions or restrictions on the ability of our, our collaborators', or our suppliers' personnel to travel, and could result in temporary closures of our facilities or the facilities of our collaborators or suppliers. In December 2019, a novel strain of a virus named SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) ("coronavirus"), which causes coronavirus disease 2019 ("COVID-19"), surfaced in Wuhan, China and has reached the rest of the world including the states of Texas, New York and New Jersey where our primary offices are located. In March 2020, the World Health Organization declared COVID-19 to be a pandemic disease. The COVID-19 pandemic is evolving, and to date has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health safety measures, as well as reported adverse impacts on healthcare resources, facilities and providers, in Texas, New York and New Jersey, across the United States and in other countries. The extent to which COVID-19 will impact our operations or those of our third-party partners will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration of the pandemic, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19 and the actions to contain COVID-19 or address its impact in the short and long-term, among others.

In response to the pandemic and in accordance with direction from state and local government authorities, we have taken temporary precautionary measures intended to help minimize the risk of the virus to our employees, including temporarily requiring most employees to work remotely (which in turn increases the threat to our cyber security and data accessibility, and communication matters) and suspending all non-essential travel worldwide for our employees. In addition, industry events and in-person work-related meetings have been cancelled, the continuation of which could negatively affect our business.

As COVID-19 continues to affect individuals and businesses around the globe, we will likely experience disruptions that could severely impact our business and clinical trials, including:

- delays or difficulties in enrolling patients in our clinical trials, or drop-outs from our clinical trials, including those resulting from an inability to travel to our clinical trial sites as a result of quarantines or other restrictions resulting from COVID-19;
- delays or difficulties in obtaining the financing necessary to undertake our clinical trials;
- interruptions or delays in the operations of the FDA and comparable foreign regulatory agencies, which may impact review, inspection, clearance and approval timelines with respect to our drug and biologic candidates;
- limitations on travel that could interrupt key clinical activities and trial activities, such as clinical trial site initiations and monitoring, domestic and international travel by employees, contractors or patients to clinical trial sites, including any government-imposed travel restrictions or quarantines that will impact the ability or willingness of patients, employees or contractors to travel to our research, manufacturing and clinical trial sites or secure visas or entry permissions, any of which could delay or adversely impact the conduct or progress of our prospective clinical trials;
- diversion or prioritization of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- business disruptions caused by potential workplace, laboratory and office closures and an increased reliance on employees working from home, disruptions to or delays in ongoing laboratory experiments and operations, staffing shortages, travel limitations, cyber security and data accessibility, or communication or mass transit disruptions;
- limitations on employee resources that would otherwise be focused on the conduct of our clinical trials, including because of sickness of employees or their families or requirements imposed on employees to avoid contact with large groups of people;
- delays in receiving approval from local regulatory authorities to initiate our planned clinical trials;
- delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials;
- interruption in global shipping that may affect the transport of clinical trial materials, such as investigational drug product used in our clinical trials;
- continued volatility in our and other biotechnology companies' shares of equity which mayresult in difficulties raising capital through sales of our common stock or equity linked to our common stock, to the extent needed, and the terms of sales may be on unfavorable terms or unavailable, which may impact our short-term and long-term liquidity;
- changes in local regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether; and
- delays in necessary interactions with local regulators, ethics committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees.

In addition, the continued spread of COVID-19 globally could adversely affect our manufacturing and supply chain. Parts of our direct and indirect supply chain could be subject to disruption or product contamination. Additionally, our results of operations could be adversely affected to the extent that COVID-19 or any other epidemic harms our business or the economy in general either domestically or in any other region in which we do business. A prolonged disruption or any further unforeseen delay in our operations could continue to result in increased costs and reduced revenue. If the COVID-19 pandemic is not effectively and timely controlled, our business operations and financial condition may be materially and adversely affected as a result of the deteriorating market outlook, the slowdown in regional and national economic growth, and other factors that we cannot foresee. The extent to which COVID-19 affects our operations will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration of the pandemic, new information that may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others, which could have an adverse effect on our business and financial condition.

***We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology or loss of data, including any cyber security incidents, could compromise sensitive information related to our business, prevent us from accessing critical information or expose us to liability which could harm our ability to operate our business effectively and adversely affect our business and reputation.***

Our ability to execute our business plan and maintain operations depends on the continued and uninterrupted performance of our information technology ("IT") systems, some of which are in our control and some of which are in the control of third parties. In the ordinary course of our business, we collect and store sensitive data, including personally identifiable information about our employees, intellectual property, and proprietary business information ("Confidential Information"). We manage and maintain our applications and data utilizing on-site systems and we also have outsourced elements of our operations to third parties, and as a result we manage a number of third-party vendors who may or could have access to our confidential information. These applications and data encompass a wide variety of business-critical information including research and development information and business and financial information.

The secure processing, storage, maintenance and transmission of this critical information is vital to our operations and business strategy. Despite the implementation of security measures, our IT systems are vulnerable to risks and damages from a variety of sources, including telecommunications or network failures, cyber-attacks, computer viruses, ransomware attacks, phishing schemes, breaches, unauthorized access, interruptions due to employee error or malfeasance or other disruptions, or damage from natural disasters, terrorism, war and telecommunication and electrical failures, or other attempts to harm or access our systems. Moreover, despite network security and back-up measures, some of our servers and those of our business partners are potentially vulnerable to physical or electronic break-ins, including cyber-attacks, computer viruses and similar disruptive problems. These events could lead to the unauthorized access, disclosure and use of Confidential Information. Breaches resulting in the compromise, disruption, degradation, manipulation, loss, theft, destruction, or unauthorized disclosure or use of Confidential Information, or the unauthorized access to, disruption of, or interference with our products and services, can occur in a variety of ways, including but not limited to, negligent or wrongful conduct by employees or others with permitted access to our IT systems and information, or wrongful conduct by hackers, competitors, or certain governments. Our third-party vendors and business partners face similar risks.

Cyber-attacks come in many forms, including the deployment of harmful malware or ransomware, exploitation of vulnerabilities, phishing and other use of social engineering, and other means to compromise the confidentiality, integrity, and availability of our IT systems and confidential information. The techniques used by criminal elements to attack computer systems are sophisticated, change frequently and may originate from less regulated or remote areas of the world. As a result, we may not be able to address these techniques proactively or implement adequate preventative measures. There can be no assurance that we will promptly detect or intercept any such disruption or security breach, if at all. If our computer systems are compromised, we could be subject to fines, damages, reputational harm, litigation and enforcement actions, and we could lose trade secrets, the occurrence of which could harm our business, in addition to possibly requiring substantial expenditures of resources to remedy. For example, any such event that leads to unauthorized access, use or disclosure of personal information, including personal information regarding our patients or employees, could harm our reputation, require us to comply with federal and/or state breach notification laws and foreign law equivalents, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information. In addition, the loss of data from clinical trials for our drug or biologic candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce data and a cybersecurity breach could adversely affect our reputation and could result in other negative consequences, including disruption of our internal operations, increased cyber security protection costs, lost revenues or litigation. Despite precautionary measures to prevent unanticipated problems that could affect our IT systems, sustained or repeated system failures that interrupt our ability to generate and maintain data could adversely affect our ability to operate our business.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

## ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

None.

## ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

**ITEM 5. OTHER INFORMATION**

None.

**ITEM 6. EXHIBITS**

**EXHIBIT INDEX**

The exhibits listed on the accompanying index to exhibits are filed or incorporated by reference (as stated therein) as part of this Quarterly Report on Form 10-Q.

| Exhibit Number | Description |
|---|---|
| 10.1#* | Collaboration Agreement by and between Molecular Templates, Inc. and Bristol-Myers Squibb Company dated February 10, 2021. |
| 31.1 | Certification of Principal Executive Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934 as amended. |
| 31.2 | Certification of Principal Financial Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934 as amended. |
| 32.1** | Certification required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350). |
| 101.INS | Inline XBRL Instance Document. |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document. |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document. |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document. |
| 101.LAB | Inline XBRL Taxonomy Extension Labels Linkbase Document. |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document. |
| 104 | Cover Page Interactive Data File (embedded within the Inline XBRL document) |

# Certain confidential portions of this Exhibit were omitted by means of marking such portions with brackets ("[***]") because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed.

* Filed herewith.

** Furnished herewith. This certification is not deemed filed for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and is not deemed to be incorporated by reference into any filing under the Securities the Exchange Act.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Molecular Templates, Inc.

Date: May 14, 2021

/s/ Eric E. Poma
Eric E. Poma, Ph.D.
Chief Executive Officer and Chief Scientific Officer

Date: May 14, 2021

/s/ Adam Cutler
Adam Cutler
Chief Financial Officer

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

**Execution Version**

# COLLABORATION AGREEMENT

**by and between**

**MOLECULAR TEMPLATES, INC.**

**and**

**BRISTOL-MYERS SQUIBB COMPANY**

**Dated as of February 10, 2021**

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**Page**



**Schedules:**

**[***]**

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**COLLABORATION AGREEMENT**

**THIS COLLABORATION AGREEMENT** is made and entered into effective as of February 10, 2021 (the "**Effective Date**") by and between **MOLECULAR TEMPLATES, INC.**, a corporation organized under the laws of the State of Delaware ("**MTEM**"), and **BRISTOL-MYERS SQUIBB COMPANY**, a corporation organized under the laws of Delaware ("**BMS**"). MTEM and BMS are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

**RECITALS**

**WHEREAS**, MTEM controls certain patents, know-how, technology and expertise useful for generating ETBs (as defined below) capable of directing compounds to specific biological targets.

**WHEREAS**, BMS is a pharmaceutical company that possesses expertise in developing and commercializing human therapeutics.

**WHEREAS**, MTEM and BMS desire to enter into a strategic collaboration focused on the development of novel products containing ETBs directed against certain Targets (as defined below).

**WHEREAS**, BMS desires to receive from MTEM, and MTEM desires to grant to BMS, a series of exclusive options to obtain one or more exclusive licenses under MTEM's intellectual property to exploit products containing ETBs directed against Collaboration Targets (as defined below), all on the terms and conditions set forth in this Agreement.

**NOW, THEREFORE**, in consideration of the respective covenants, representations, warranties and agreements set forth herein, the Parties agree as follows:

**ARTICLE 1**

**DEFINITIONS**

As used in this Agreement and the Schedules to this Agreement the following capitalized terms, whether used in the singular or plural, shall have the meanings set forth below:

**1.1** "**AAA**" means the American Arbitration Association.

**1.2** "**Accounting Standards**" means U.S. Generally Accepted Accounting Principles.

**1.3** "**Additional Target**" has the meaning set forth in Section 2.3.1.

**1.4** "**Affiliate**" means, as of any point in time and for so long as such relationship continues to exist with respect to any Person, any other Person that controls, is controlled by or is under common control with such Person. A Person will be regarded as in control of another Person if it (a) owns or controls, directly or indirectly, more than 50% of the equity securities of

the subject Person entitled to vote in the election of directors (or, in the case of a Person that is not a corporation, for the election of the corresponding managing authority), or (b) possesses, directly or indirectly, the power to direct or cause the direction of the management or policies of such Person (whether through ownership of securities or other ownership interests, by contract or otherwise).

**1.5** "**Agreement**" means this agreement and all schedules attached hereto, as may be amended in accordance with the provisions of this Agreement.

**1.6** "**Alliance Manager**" has the meaning set forth in Section 3.10.

**1.7** "**Applicable Law**" means all applicable laws, statutes, rules, regulations and other pronouncements having the effect of law of any federal, national, multinational, state, provincial, county, city or other political subdivision, agency or other body, domestic or foreign, including any applicable rules, regulations, guidelines, or other requirements of the Regulatory Authorities that may be in effect from time to time, including the FD&C Act, the U.S. Public Health Service Act, then-current Good Clinical Practices ("**GCP**"), good laboratory practices ("**GLP**") and good manufacturing practices ("**GMP**"), anti-bribery laws, such as the United States Anti-Kickback Statute, Foreign Corrupt Practices Act and UK Bribery Act, as well as all applicable data protection and privacy laws, rules and regulations, including the United States Department of Health and Human Services privacy rules under the Health Insurance Portability and Accountability Act, as amended, and the Health Information Technology for Economic and Clinical Health Act and the EU General Data Protection Regulation 2016/679 of the European Parliament and of the Counsel of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, along with other country-level data protection laws, as may be applicable.

**1.8** "**Available**" means, with respect to a Target, that such Target is not Unavailable.

**1.9** "**Back-Up Option**" has the meaning set forth in Section 4.2.

**1.10** "**Bankruptcy Code**" has the meaning set forth in Section 5.5.

**1.11** "**Biosimilar Product**" means, with respect to a particular Licensed Product that has received Marketing Approval for a particular Indication in a country or jurisdiction in the Territory and is being marketed and sold by BMS or any of its Affiliates or Sublicensees in the applicable country, a biologic product that (a) is sold in such country by a Third Party that is not an Affiliate or Sublicensee of BMS, and did not purchase or acquire such product in a chain of distribution that included any of BMS or its Affiliates or Sublicensees, and (b) has received Marketing Approval in such country or jurisdiction for the same Indication as such Licensed Product as a "bioequivalent," "biosimilar" or similar designation of interchangeability by the applicable Regulatory Authority in such country or jurisdiction pursuant to an expedited or abbreviated approval process, where (i) such Licensed Product is the reference product in such country or jurisdiction, and (ii) such Marketing Approval referred to or relied on the approved Drug Approval Application for such Licensed Product held by BMS or its Affiliate or a

Sublicensee in such country or jurisdiction or the data contained or incorporated by reference in such approved Drug Approval Application for such Licensed Product in such country or jurisdiction.

**1.12** "**BMS Background Know-How**" means any and all Know-How that (a) is Controlled by BMS or any of its Affiliates (i) as of the Effective Date or (ii) during the Term as a result of performing activities outside the scope of this Agreement and (b) is necessary or reasonably useful for the performance of the Research Plans, Licensed Product Manufacturing and other activities under this Agreement.

**1.13** "**BMS Background Patents**" means any and all Patents that (a) are Controlled by BMS or any of its Affiliates as of the Effective Date or during the Term and (b) [***] BMS Background Know-How.

**1.14** "**BMS Binder**" means any antibody or other targeting moiety, and any fragment, derivative or variant thereof (including their corresponding expression constructs, nucleic acid sequences, amino acid sequences, and cell lines), in each case that (a) are capable of binding to a Collaboration Target, (b) are provided by BMS to MTEM for the performance of activities under this Agreement, and (c) are proprietary to BMS [***]. For clarity, BMS Binder does not include [***].

**1.15** [***].

**1.16** "**BMS Binder Know-How**" means any and all Collaboration Know-How that is [***] relates to any BMS Binder.

**1.17** "**BMS Binder Patents**" means any and all Patents that [***] and do not [***].

**1.18** [***].

**1.19** [***] means any and all [***] and do not [***].

**1.20** "**BMS Collaboration Know-How**" means any and all Collaboration Know-How that is made or conceived solely by or on behalf of BMS or its Affiliates (other than by or on behalf of MTEM or its Affiliates hereunder). For clarity, BMS Collaboration Know-How excludes BMS Background Know-How, and Joint Collaboration Know-How.

**1.21** "**BMS Collaboration Patents**" means any and all Patents that are Controlled by BMS after the Effective Date and that Cover BMS Collaboration Know-How. For clarity, BMS Collaboration Patents exclude BMS Background Patents and Joint Collaboration Patents.

**1.22** "**BMS Indemnitees**" has the meaning set forth in [***].

**1.23** "**BMS Know-How**" means, collectively, BMS Background Know-How, BMS Collaboration Know-How (including Product-Platform Know-How), and BMS' interest in Joint Collaboration Know-How.

**1.24** [***].

**1.25** "**BMS Patents**" means, collectively, BMS Background Patents, BMS Collaboration Patents (including Product-Platform Patents), and BMS' interest in Joint Collaboration Patents.

**1.26** "**Business Day**" means a day, other than a Saturday or a Sunday, on which banking institutions in New York, New York are open for business.

**1.27** "**Calendar Quarter**" means each successive period of three (3) calendar months commencing on January 1, April 1, July 1 and October 1, except that the first Calendar Quarter of the Term shall commence on the Effective Date and end on the day immediately prior to the first to occur of January 1, April 1, July 1, or October 1 after the Effective Date, and the last Calendar Quarter shall end on the last day of the Term.

**1.28** "**Calendar Year**" means each successive period of twelve (12) calendar months commencing on January 1 and ending on December 31, except that the first Calendar Year of the Term shall commence on the Effective Date and end on December 31 of the year in which the Effective Date occurs, and the last Calendar Year of the Term shall commence on January 1 of the year in which the Term ends and end on the last day of the Term.

**1.29** "**Calendar Year Net Sales**" means, on a Collaboration Target-by-Collaboration Target basis, the total Net Sales by BMS, its Affiliates and Sublicensees in the Territory of all Licensed Products Directed to the applicable Collaboration Target in a particular Calendar Year or, with respect to the Calendar Year that includes the First Commercial Sale, the period beginning on such date of First Commercial Sale through the end of the Calendar Year in which such sale occurred.

**1.30** "**Change of Control**" means, with respect to a Party, (a) a merger or consolidation of such Party with a Third Party that results in the voting securities of such Party outstanding immediately prior thereto, or any securities into which such voting securities have been converted or exchanged, ceasing to represent more than 50% of the combined voting power of the surviving entity or the parent of the surviving entity immediately after such merger or consolidation, (b) a transaction or series of related transactions in which a Third Party, together with its Affiliates, becomes the beneficial owner of more than 50% of the combined voting power of the outstanding voting securities of such Party, or (c) the sale or other transfer to a Third Party of all or substantially all of such Party's business to which the subject matter of this Agreement relates. For clarity, a Change of Control does not include (i) an internal consolidation, merger, share exchange or other reorganization of a Party between or among such Party and one or more of its Affiliates, (ii) a sale of assets, merger, or other transaction effected exclusively for the purpose of changing domicile of a Party, or (iii) any public offering of a Party's equity securities or other issuance of stock by a Party in an equity financing.

**1.31** "**Claims**" has the meaning set forth in Section 10.1.1.

**1.32** "**Clinical Studies**" means a Phase 1 Trial, Phase 2 Trial, Phase 3 Trial, or combination thereof and such other tests and studies in human subjects that are required by Applicable Law, or required or recommended by any applicable Regulatory Authority, or otherwise designed to generate data in support or maintenance of Marketing Approvals for a Licensed Product for one (1) or more Indications, including tests or studies in humans that are intended to expand the approved Indications for such Licensed Product.

**1.33** "**Collaboration Know-How**" means any and all Know-How that is made or conceived by or on behalf of either Party, solely or jointly with the other Party or its Affiliates, in performing activities under this Agreement.

**1.34** "**Collaboration Target**" means each Target listed in Schedule 1.34, as the same may be amended pursuant Section 2.3.3.

**1.35** "**Combination Product**" means a Licensed Product that includes at least one additional active ingredient which is not a Licensed Development Candidate (each, an "**Other Ingredient**") (whether co-formulated or co-packaged), including all forms, formulations, presentations, dosage forms or strengths, line extensions, package configurations and modes of delivery. Pharmaceutical dosage form vehicles, adjuvants, and excipients shall not be deemed to be Other Ingredients, except in the case where such vehicle, adjuvant, or excipient is recognized by the FDA as an active ingredient in accordance with 21 CFR 210.3(b)(7).

**1.36** "**Combination Product Net Sales**" has the meaning set forth in Section 1.109.

**1.37** "**Commercialization**" means any and all activities directed to the preparation for sale of, offering for sale of, or sale of a product, including activities related to marketing, promoting, distributing, importing, and exporting such product, and, for purposes of setting forth the rights and obligations of the Parties under this Agreement, shall be deemed to include conducting medical affairs activities and interacting with Regulatory Authorities regarding any of the foregoing. When used as a verb, "**to Commercialize**" and "**Commercializing**" means to engage in Commercialization, and "**Commercialized**" has a corresponding meaning.

**1.38** "**Commercially Reasonable Efforts**" means, with respect to efforts to be expended for Development and Commercialization or a Party's conduct of other objectives or activities hereunder, the use of reasonable, diligent and good faith efforts and resources [***] would typically devote to similar compounds or products of similar market potential at a similar stage in development or product life taking into account all relevant factors. With respect to (a) the conduct of a Research Program by MTEM, [***], and (b) any objective relating to the Development or Commercialization of a Licensed Development Candidate or Licensed Product by BMS, [***], taking into account, [***]. Commercially Reasonable Efforts shall be determined on a country-by-country, Licensed Development Candidate-by-Licensed Development Candidate, Licensed Product-by-Licensed Product basis and Indication-by-Indication basis, and it is anticipated that the level of effort will change over time, reflecting changes in the status of the Licensed Product and the market(s) or country(ies).

**1.39** "**Complete Data Package**" has the meaning set forth in Section 4.1.

**1.40** "**Confidential Information**" means any Know-How, including data, and other information provided orally, visually, in writing, or other form by or on behalf of one Party (or an Affiliate or representative of such Party) to the other Party (or to an Affiliate or representative of such Party) in connection with this Agreement, including information relating to the terms of this Agreement, any Collaboration Target, Development Candidate or Licensed Product, any Exploitation of any Licensed Product, any Know-How with respect thereto developed by or on behalf of the disclosing Party or its Affiliates (including BMS Collaboration Know-How and MTEM Collaboration Know-How, as applicable), or the scientific, regulatory, or business affairs or other activities of either Party. Notwithstanding anything to the contrary herein, (a) MTEM Background Know-How, MTEM Collaboration Know-How, ETB Platform Know-How, [***], and BMS shall be deemed to be the Receiving Party with respect thereto, (b) BMS Background Know-How and BMS Collaboration Know-How [***] shall be the Confidential Information of BMS, and MTEM shall be deemed to be the Receiving Party with respect thereto, (c) Joint Collaboration Know-How shall be the Confidential Information of both Parties, and, subject to Section 12.5, both Parties shall be deemed to be the Receiving Party with respect thereto, (d) Know-How and information (other than BMS Background Know-How, BMS Collaboration Know-How, and Joint Collaboration Know-How) specifically relating to an ETB Directed to a Collaboration Target and Developed by MTEM under a Research Program shall be [***], (e) if BMS exercises the Option with respect to a particular Collaboration Target, then [***] relating solely to such Collaboration Target, Licensed Development Candidate or Licensed Product, shall be the Confidential Information [***], and (f) the terms of this Agreement shall be the Confidential Information of both Parties, and, subject to Section 12.5, both Parties shall be deemed to be the Receiving Party with respect thereto.

**1.41** "**Control**" or "**Controlled**" means (a) with respect to a Party and any Know-How or Patent, possession of the right by such Party or its Affiliate (whether by sole or joint ownership, license or otherwise), other than pursuant to this Agreement, to grant to the other Party, without violating the terms of any agreement with a Third Party, a license, access or other right in, to or under such Know-How or Patent, and (b) with respect to a Party and any tangible embodiments of Know-How, Regulatory Filings or documentation, possession of the ability by such Party or its Affiliate (whether by sole or joint ownership, license or otherwise), other than pursuant to this Agreement, to grant to the other Party, without violating the terms of any agreement with a Third Party, access to or disclosure of such tangible embodiments of Know-How, Regulatory Filings or documentation. Notwithstanding anything in this Agreement to the contrary, a Party and its Affiliates will be deemed to not Control any Know-How or Patents that are owned or controlled by a Third Party described in the definition of "Change of Control," or such Third Party's Affiliates (other than such Party and its Preexisting Affiliates), (i) prior to the closing of such Change of Control, except to the extent that any such Know-How or Patents were developed by such Third Party prior to such Change of Control using or incorporating such Party's or its Preexisting Affiliate's Know-How or Patents or (ii) after the closing of such Change of Control to the extent that such Know-How or Patents are developed or conceived by such Third Party or its Affiliates (other than such Party or its Preexisting Affiliates) after such Change of Control without using or incorporating such Party's or its Preexisting Affiliate's Know-How or Patents.

In addition, neither Party shall be deemed to Control any item of Know-How, Patent, or other intellectual property right of a Third Party if the grant of a sublicense, access or other right under this Agreement requires or gives rise to a payment obligation to the Third Party.

**1.42** "**Cover**," "**Covering**" or "**Covers**" means (a) as to a method, compound or product and Patent, that, in the absence of a license granted under, or ownership of, such Patent, the making, using, selling, offering for sale or importation of such method, compound or product would infringe any claim of such Patent or, as to a pending claim included in such Patent, the making, using, selling, offering for sale or importation of such method, compound or product would infringe the claim of such Patent if such pending claim were to issue in an issued patent without modification, and (b) [***] would infringe such Patent or, as to a pending claim included in such Patent, [***] infringe such Patent if such pending claim were to issue in an issued patent without modification.

**1.43** "**Development**" means all activities related to discovery, pre-clinical and other non-clinical research, testing, test method development and stability testing, toxicology, formulation, process development, Manufacturing scale-up, qualification and validation, quality assurance/quality control, Clinical Studies, including Manufacturing in support thereof, statistical analysis and report writing, the preparation and submission of Drug Approval Applications, regulatory affairs with respect to the foregoing, and all other activities necessary or reasonably useful or otherwise requested or required by a Regulatory Authority as a condition or in support of obtaining or maintaining a Marketing Approval. When used as a verb, "**Develop**" means to engage in Development.

**1.44** "**Development Candidate**" means, with respect to a Research Program, an ETB Directed to the corresponding Collaboration Target that has been Developed under such Research Program and that has satisfied the criteria set forth in the Research Plan for such Research Program or has otherwise been designated by the JRC as a Development Candidate.

**1.45** "**Development Technology Transfer**" means, on a Licensed Development Candidate-by-Licensed Development Candidate basis, (a) the disclosing and making available to BMS (which may include granting personnel designated by BMS controlled access to an electronic data room), in such form as maintained by MTEM in the ordinary course of business, MTEM Background Know-How, MTEM Collaboration Know-How, and Joint Collaboration Know-How (to the extent such Joint Collaboration Know-How is in MTEM's possession and control), in each case to the extent (i) related to and necessary or reasonably useful for the Development of such Licensed Development Candidate and corresponding Licensed Products, (ii) existing as of the date of such Development Technology Transfer, and (iii) not previously provided to BMS by MTEM, and (b) subject to Section 5.3, the reasonable assistance and technology transfer activities to be provided and performed by MTEM to enable BMS (and its designees) to Develop Licensed Development Candidates and Licensed Products.

**1.46** "**Directed to**" means with respect to a Target and an ETB, that such ETB is selected, generated or optimized to preferentially bind to such Target.

**1.47** "**Dispute**" has the meaning set forth in Section 13.6.

**1.48** "**Dollars**" or "**$**" means United States Dollars.

**1.49** "**Drug Approval Application**" means a Biologics License Application ("**BLA**") as defined in the FD&C Act, a marketing authorization application ("**MAA**") submitted to the European Medicines Agency ("**EMA**"), or similar application or submission filed with a Regulatory Authority in a country or group of countries to obtain Marketing Approval for a pharmaceutical or biologic product in that country or group of countries, including any amendment thereof.

**1.50** "**Effective Date**" means the effective date of this Agreement as set forth in the preamble hereto.

**1.51** "**ETB**" (Engineered Toxin Body) means MTEM's proprietary engineered toxin moiety, or subunit, fragment, or derivative, thereof, including variants such as deimmunized variants, variants with heterologous epitopes, furin-cleavage resistant variants and combinations thereof and any improvements to or derivatives of any of the foregoing including antigen seeding technology , in each case, that is conjugated, fused (e.g., as a single polypeptide chain), or otherwise combined with any antibody or other targeting moiety.

**1.52** "**ETB Platform** " means MTEM's proprietary technology, including Know-How and Patents Controlled by MTEM, relating to discovery, development, production, and commercialization of ETBs.

**1.53** "**ETB Platform Know-How**" means any and all Collaboration Know-How that describes or comprises (a) a method or process (or series of methods or processes) for discovering, developing, producing or formulating ETBs, including methods of conjugating, combining, or fusing one or more components of ETBs or methods of forming, creating, expressing, or purifying ETBs, or (b) the composition of any component of ETBs, such as, by way of example and not in limitation, any toxin moiety, linker sequence , or heterologous epitope, including mutations or modifications to any components of ETBs, in each case ((a) and (b)) where such method or process or composition has applicability to ETBs (or any component thereof) other than or in addition to any Licensed Development Candidate(s), Licensed Product(s), [***] or BMS Binder(s). For clarity, ETB Platform Know-How does not include (A) Collaboration Know-How (i) that describes or comprises a method or process that is applicable solely to a Licensed Development Candidate, Licensed Product, [***] or BMS Binder, or (ii) to the extent specific to the composition of a Licensed Development Candidate, Licensed Product, [***] or BMS Binder, and (B) Product-Platform Know-How.

**1.54** "**ETB Platform Patents**" means any and all Patents that Cover any ETB Platform Know-How. For clarity, ETB Platform Patents do not include (A) any Patent (i) that Covers a method or process that is applicable solely to a Licensed Development Candidate, Licensed Product, [***] or BMS Binder, or (ii) to the extent such Patent Covers specifically the

composition of a Licensed Development Candidate, Licensed Product, [***] or BMS Binder, and (B) Product-Platform Patents.

**1.55** "**ETB Platform Technology**" means ETB Platform Know-How and ETB Platform Patents, collectively.

**1.56** "**European Union**" means the organization of member states known as the European Union, as its membership may be altered from time to time, and any successor thereto.

**1.57** "**Excess Research Costs**" has the meaning set forth in Section 2.2.4.

**1.58** "**Existing Background Patents**" has the meaning set forth in Section 9.2.2.

**1.59** "**Exploit**" or "**Exploitation**" means to research, develop, make, have made, import, export, keep, use, have used, sell, have sold, offer for sale, and otherwise exploit, including to Develop, Commercialize, Manufacture, and have Manufactured.

**1.60** "**FDA**" means the United States Food and Drug Administration and any successor agency(ies) or authority having substantially the same function.

**1.61** "**FD&C Act**" means the United States Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301 *et seq.*, as amended from time to time, together with any rules, regulations and requirements promulgated thereunder (including all additions, supplements, extensions, and modifications thereto).

**1.62** "**Field**" means all uses, including the diagnosis, prevention, and/or treatment of any and all Indications in humans.

**1.63** "**First Commercial Sale**" means, with respect to a Licensed Product and a country, the first sale for monetary consideration for use or consumption by the end user of such Licensed Product in such country after Marketing Approval for the sale of such Licensed Product has been obtained in such country; *provided* that the following will not constitute a First Commercial Sale: (a) any sale of a Licensed Product to an Affiliate or Sublicensee for resale; (b) any sale of a Licensed Product for use in Clinical Studies, pre-clinical studies or other Research or Development activities; (c) the disposal or transfer of a Licensed Product at or below cost for a *bona fide* charitable purpose; or (d) "compassionate use sales" and "named patient sales" made at or below cost. For clarity, any "compassionate use sales" or "named patient sales" made above cost shall constitute a sale of a Licensed Product, and such sale will qualify as a "First Commercial Sale" even if prior to obtaining Marketing Approval.

**1.64** "**Force Majeure**" means a condition, the occurrence and continuation of which is beyond the reasonable control of a Party, including an act of God, governmental acts or restrictions, war, civil commotion, labor strike or lock-out, epidemic, pandemic, flood, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe.

**1.65** "**FTE**" means the equivalent of the work of one appropriately qualified individual working on a full-time basis of [***] hours per annum in performing work directly in support of the Research Program or in connection with Manufacturing or technology transfer for a twelve (12)-month period. During any given period of time, [***], such person's efforts shall be treated as an FTE solely with respect to the period of time spent by such person in support of the Research Program or in connection with Manufacturing or technology transfer on a pro rata basis as compared to the time spent by such person on other endeavors. FTE efforts shall not include the work of general corporate or administrative personnel. For clarity, one FTE's work may be carried out by one or more employees as part of the Research Program or in connection with Manufacturing or technology transfer.

**1.66** "**FTE Costs**" means, for any period, the FTE Rate multiplied by the number of FTEs who perform a specified activity under this Agreement.

**1.67** "**FTE Rate**" means [***] after the Effective Date. [***] . The FTE Rate includes all wages and salaries, employee benefits, bonus, travel and entertainment, and other direct expenses expended in connection with such FTE's performance of activities under this Agreement and excludes indirect allocations, including all general and administrative expenses, human resources, finance, occupancy and depreciation expended in connection with such FTE's performance of activities under this Agreement.

**1.68** "**Gatekeeper**" has the meaning set forth in Section 2.3.3.

**1.69** "**Gatekeeper Agreement**" has the meaning set forth in Section 2.3.3.

**1.70** "**Governmental Authority** " means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

**1.71** "**HSR Act** " means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder.

**1.72** "**HSR Clearance Date**" means, on an Option-by-Option basis, the later of (a) the earliest date , following BMS' exercise of such Option (either the Lead Option or a Back-Up Option, as applicable) pursuant to Section 4.2 , on which the Parties have actual knowledge that all applicable waiting periods under the HSR Act with respect to the transactions hereunder arising upon BMS' exercise of such Option have expired or have been terminated, and (b) the Parties' receipt of any other such antitrust clearance(s) as BMS reasonably determines are necessary as a result of BMS' exercise of such Option.

**1.73** "**HSR Filing** " means a filing by MTEM and BMS, or their ultimate parent entities, as that term is defined in the HSR Act, with the FTC and the DOJ of a Notification and Report Form for Certain Mergers and Acquisitions (as that term is defined in the HSR Act) with respect to the transactions contemplated under this Agreement upon BMS' exercise of an Option, together with all required documentary attachments thereto.

**1.74** "**Incomplete Data Package Notice**" has the meaning set forth in Section 4.1.

**1.75** "**IND**" means an application filed with a Regulatory Authority for authorization to commence Clinical Studies, including (a) an Investigational New Drug Application as defined in the FD&C Act or any successor application filed with the FDA, (b) any equivalent of a United States IND in other countries or regulatory jurisdictions (e.g., a Clinical Trial Application or Clinical Trial Authorisation), and (c) all supplements, amendments, variations, extensions, and renewals thereof.

**1.76** "**Indemnified Party**" has the meaning set forth in Section 10.1.3.

**1.77** "**Indemnifying Party**" has the meaning set forth in Section 10.1.3.

**1.78** "**Indication**" means a distinct disease, disorder, illness, or health condition in humans for which (a) a compound or product that is in Clinical Studies is intended to be used in the treatment, diagnosis, prevention, cure or amelioration of subjects in such Clinical Studies, or (b) a separate Drug Approval Application is required to be filed or, as applicable, has been filed or a separate Marketing Approval has been received. For clarity, subject to the foregoing, (i) a different genetic subtype, organ or origin, or histology of the same disease or condition shall be considered a distinct Indication, and (ii) treatment of different subpopulations within a population of patients having a disease or condition shall be treated as distinct Indications (e.g., front-line treatment, relapsed refractory treatment and maintenance treatment of the same disease shall each be considered a different Indication).

**1.79** "**Infringing Product**" has the meaning set forth in Section 7.6.5.

**1.80** "**Initial Research Budget**" has the meaning set forth in Section 2.2.1.

**1.81** "**Initial Research Plan**" has the meaning set forth in Section 2.2.1.

**1.82** "**Initial Target**" means [***], also known as [***].

**1.83** "**Initiation**" means, with respect to a Clinical Study, the first dosing of the first human subject in such Clinical Study.

**1.84** "**Intellectual Property Committee**" or "**IPC**" has the meaning set forth in Section 3.6.

**1.85** "**Joint Collaboration Know-How**" means any and all Collaboration Know-How that is made or conceived jointly by or on behalf of BMS or its Affiliates, on the one hand, and by or on behalf of MTEM or its Affiliates, on the other hand. For clarity, Joint Collaboration Know-How excludes BMS Background Know-How, BMS Collaboration Know-How, MTEM Background Know-How, and MTEM Collaboration Know-How.

**1.86** "**Joint Collaboration Patents**" means any and all Patents that Cover any Joint Collaboration Know-How. For clarity, Joint Collaboration Patents exclude BMS Background Patents, BMS Collaboration Patents, MTEM Background Patents, and MTEM Collaboration Patents.

**1.87** "**Joint Research Committee**" or "**JRC**" has the meaning set forth in Section 3.1.

**1.88** "**Know-How**" means any and all commercial, technical, scientific, and other know-how and information, data, results, inventions, methods, processes, trade secrets, techniques, technology, and other proprietary information, whether patentable or not, including discoveries, formulae, materials (including chemicals), biological materials (including expression constructs, nucleic acid sequences, amino acid sequences, and cell lines), practices, test data (including pharmacological, toxicological, pre-clinical and clinical information and test data), analytical and quality control data (including drug stability data), manufacturing technology and data (including formulation data), and sales forecasts, data and descriptions; *provided* that Know-How does not include Patents.

**1.89** "**Knowledge** " means, [***], [***].

**1.90** "**Lead Option**" has the meaning set forth in Section 4.2.

**1.91** "**License Effective Date** " means, on a Licensed Development Candidate-by-Licensed Development Candidate basis, for each such Licensed Development Candidate for which BMS exercises either the Lead Option or a Back-Up Option in respect of the corresponding Collaboration Target pursuant to Section 4.2 , (a) if BMS determines in accordance with Section 4.4 that an HSR Filing is required to be made under the HSR Act as a result of BMS' exercise of such Lead Option or Back-Up Option and notifies MTEM of such determination in accordance with Section 4.4.1, the applicable HSR Clearance Date, and (b) other than under the circumstances described in clause (a), the date of the delivery by BMS to MTEM of written notice of its election to exercise either the Lead Option or a Back-Up Option with respect to the corresponding Collaboration Target and specifying such Licensed Development Candidate pursuant to Section 4.2.

**1.92** "**Licensed Development Candidate**" means (a) a Development Candidate for which BMS has exercised its Lead Option or Back-Up Option in accordance with Section 4.2 (each "**MTEM-Provided Candidate**"), and (b) any derivative or other modification of such MTEM-Provided Candidate that is made by or on behalf of BMS or its Affiliates or Sublicensees during the Term and is Directed to the Collaboration Target.

**1.93** "**Licensed Product**" means any product that comprises or contains a Licensed Development Candidate and is Directed to a Collaboration Target, in any form, formulation, presentation, dosage form or strength, line extension, package configuration and mode of delivery. For clarity, Licensed Product includes any Combination Product and any and all products that comprise or contain any derivative, analogue, improvement or other modification of any MTEM-Provided Candidate that is made by or on behalf of BMS or its Affiliates or Sublicensees after the applicable License Effective Date.

**1.94** "**Losses**" has the meaning set forth in Section 10.1.1.

**1.95** "**Major Market**" means each of the United States, France, Germany, the United Kingdom, Spain, Italy, and Japan.

**1.96** "**Manufacture**" and "**Manufacturing**" means all activities related to the synthesis, making, production, processing, purifying, formulating, filling, finishing, packaging, labelling, shipping, and holding of any molecule, product or any intermediate thereof, including process development, process qualification and validation, scale-up, pre-clinical, clinical and commercial production and analytic development, product characterization, supply chain, stability testing, quality assurance testing and release, investigations, risk assessments, corrective actions, and quality control.

**1.97** "**Manufacturing Cost** " means (a) to the extent that any ETB Developed under a Research Program or any Licensed Development Candidate or Licensed Product is Manufactured by MTEM's approved (in accordance with Section 6.4.1) Third Party contract manufacturer, [***] ; or (b) to the extent that any ETB Developed under a Research Program or any Licensed Development Candidate or Licensed Product is Manufactured by MTEM or its Affiliates, [***]. Any costs associated with excess manufacturing capacity at site shall not be included in such Manufacturing Costs under clause (b) above. For clarity, costs that are not attributable and reasonably allocated to (whether or not occurring at the manufacturing plant) supporting any ETB Developed under a Research Program or any Licensed Development Candidate or Licensed Product Manufacturing, such as charges for corporate overhead that are not controllable by and allocable to the manufacturing plant, shall not be included in such Manufacturing Costs.

**1.98** "**Marketing Approval**" means, with respect to a country or jurisdiction in the Territory, any and all approvals (including of Drug Approval Applications), licenses, registrations, or authorizations of any Regulatory Authority necessary to market and sell a Licensed Product in such country or other jurisdiction, excluding Price Approval.

**1.99** "**MTEM Background Know-How**" means any and all Know-How that (a) is Controlled by MTEM or any of its Affiliates (i) as of the Effective Date or (ii) during the Term as a result of performing activities outside the scope of this Agreement and (b) is necessary [***] for the Exploitation of any Licensed Development Candidate or Licensed Product; *provided* that, MTEM Background Know-How shall not include [***].

**1.100** "**MTEM Background Patents**" means any and all Patents that (a) are Controlled by MTEM or any of its Affiliates as of the Effective Date or during the Term and (b) [***] MTEM Background Know-How. For clarity, MTEM Background Patents do not include [***].

**1.101** "**MTEM Collaboration Know-How**" means any and all Collaboration Know-How that is made or conceived solely by or on behalf of MTEM or its Affiliates. For clarity, MTEM Collaboration Know-How excludes MTEM Background Know-How, and Joint Collaboration Know-How.

**1.102** "**MTEM Collaboration Patents**" means any and all Patents that are Controlled by MTEM after the Effective Date and that Cover MTEM Collaboration Know-How. For clarity, MTEM Collaboration Patents exclude MTEM Background Patents, and Joint Collaboration Patents.

**1.103** "**MTEM Indemnitees**" has the meaning set forth in [***].

**1.104** "**MTEM In-Licensed IP**" has the meaning set forth in Section 8.6.2.

**1.105** "**MTEM Licensed Know-How**" means MTEM Background Know-How, MTEM Collaboration Know-How, and [***].

**1.106** "**MTEM Licensed Patents**" means MTEM Background Patents, MTEM Collaboration Patents, and [***]. For clarity, MTEM Licensed Patents include [***].

**1.107** "**MTEM Platform In-Licensed IP**" has the meaning set forth in Section 8.6.1.

**1.108** "**MTEM-Provided Candidate**" has the meaning set forth in Section 1.92.

**1.109** "**Net Sales**" means, with respect to a Licensed Product for a particular period, the gross invoiced price for sales of such Licensed Product during such period by BMS, its Affiliates, or Sublicensees (the "**Selling Party**") to Third Parties, less the following deductions (if not already deducted in the amount invoiced), in each case related specifically to such Licensed Product and only to the extent such deductions are actually allowed and taken and not otherwise recovered by or reimbursed to the Selling Party:

(a) credits or allowances on account of recalls, damaged goods, rejections or returns of items previously sold (including Licensed Product returned in connection with recalls or withdrawals) or price adjustments;

(b) normal and customary trade, cash or quantity discounts, allowances and credits allowed or paid, in the form of deductions actually allowed or actually paid with respect to sales of such Licensed Product, excluding commissions for Commercialization;

(c) rebates, chargebacks and discounts actually granted or paid to managed health care organizations, pharmacy benefit managers, Governmental Authorities, or their agencies or purchasers, or reimbursers that effectively reduce the selling price or gross sales of such Licensed Product, inventory management fees (as a reduction of gross sales), and other *bona fide* service fees paid to distributors and wholesalers;

(d) insurance, customs charges, freight, shipping and other transportation costs incurred in shipping Licensed Product to non-related Third Parties, to the extent added to the sale price and set forth separately in the invoice and to the extent incurred by a Selling Party and not reimbursed by a non-related party;

(e) taxes on sales of such Licensed Product to the extent added to the sale price and set forth separately in the invoice (but specifically excluding, for clarity, any income taxes assessed against the income arising from such sales) (including value added taxes, but only to the extent that such value added taxes are not reimbursable or refundable); and

(f) tariffs, excise taxes (excluding annual fees due under Section 9008 of the United States Patient Protection and Affordable Care Act of 2010 (Pub. L. No. 111-48) and other comparable Applicable Laws) import/export duties and customs duties assessed by Governmental Authorities on the sale of such Licensed Product.

[***]. All deductions shall be fairly and equitably allocated to such Licensed Product and to other products of the Selling Party such that such Licensed Product does not bear a disproportionate portion of such deductions.

A qualifying amount may be deducted only once regardless of the number of the preceding categories that describes such amount. Net Sales will be deemed to occur on the date the Selling Party invoices for the sale of a Licensed Product. If a Selling Party makes any adjustment to such deductions after the associated Net Sales have been reported pursuant to this Agreement, the adjustments and payment of any royalties due will be reported with the next quarterly report. Sales between or among BMS , its Affiliates and Sublicensees will be excluded from the computation of Net Sales, but Net Sales will include the subsequent final sales to Third Parties by BMS or any such Affiliates or Sublicensees. A Licensed Product will not be deemed to be sold if the Licensed Product is provided free of charge to a Third Party in reasonable quantities as a sample consistent with industry standard promotional and sample practices.

If a sale, transfer or other disposition with respect to a Licensed Product involves consideration other than cash or is not at arm's length, the Net Sales from such sale, transfer or other disposition will be calculated based on the average Net Sales price of the Licensed Product in arm's length sales for cash in the relevant country during the same Calendar Quarter as such sale, transfer or other disposition or in the absence of such sales, the fair market value of the Licensed Product as mutually determined by the Parties in good faith.

For purposes of calculating Net Sales, all Net Sales shall be converted into Dollars in accordance with Section 7.8.

Solely for purposes of calculating Net Sales, if, in any country, BMS or its Affiliate or Sublicensee sells a Combination Product, Net Sales of such Combination Product in such country for the purpose of determining royalty payments due to MTEM pursuant to this Agreement will be calculated by [***] ("**Combination Product Net Sales**") by [***] (the "**Relative Commercial Value**") as determined by the Parties in good faith.

If the Parties are unable to agree on the Relative Commercial Value after good faith negotiations, including after referral to the Senior Officers, then the Relative Commercial Value shall be determined as follows: [***].

**1.110** "**Option**" has the meaning set forth in Section 4.2.

**1.111** "**Option End Date**" has the meaning set forth in Section 4.3.

**1.112** "**Option Exercise Data Package**" means, with respect to a Research Program, a report that includes each of the following: [***].

**1.113** "**Option Exercise Fee**" has the meaning set forth in Section 7.2.

**1.114** "**Option Exercise Notice**" has the meaning set forth in Section 4.2.

**1.115** "**Option Term**" means, with respect to a Research Program and corresponding Collaboration Target, the period commencing [***] and ending on the earliest to occur of (a) [***] (b) [***], or (c) [***].

**1.116** "**Optioned Product-Specific Patents**" has the meaning set forth in Section 8.2.5.

**1.117** "**Other Ingredient**" has the meaning set forth in Section 1.35.

**1.118** "**Patent Challenge**" has the meaning set forth in Section 11.4.

**1.119** "**Patents**" means (a) all national, regional and international patents and patent applications, including provisional patent applications and any and all rights to claim priority thereto, (b) all patent applications filed from such patents, patent applications, or provisional applications or from an application claiming priority from any of these, including divisionals, continuations, continuations-in-part, provisionals, converted provisionals, and continued prosecution applications, (c) any and all patents that have issued or in the future issue from the foregoing patent applications ((a) and (b)), including utility models, petty patents, and design patents and certificates of invention, (d) any and all extensions or restorations by existing or future extension or restoration mechanisms, including revalidations, reissues, re-examinations, and extensions (including any supplementary protection certificates and the like) of the foregoing patents or patent applications or other patents resulting from post-grant proceedings ((a), (b), and (c)), and (e) any similar patent rights, including so-called pipeline protection or any importation, revalidation, confirmation, or introduction patent or registration patent or patent of additions to any of such foregoing patent applications and patents.

**1.120** "**Permitted BMS Purposes**" has the meaning set forth in Section 2.8.1.

**1.121** "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department, or agency of a government.

**1.122** "**Phase 1 Trial**" means a human clinical trial of a Licensed Product that satisfies the requirements for a Phase 1 study as defined in 21 CFR § 312.21(a) (or any amended or successor regulations) or that satisfies the requirements of similar laws or regulations outside the United States.

**1.123** "**Phase 2 Trial**" means a human clinical trial of a Licensed Product that satisfies the requirements for a Phase 2 study as defined in 21 CFR § 312.21(b) (or any amended or successor regulations) or that satisfies the requirements of similar laws or regulations outside the United States . For clarity, Phase 2 Trial includes any Phase 2a clinical study of a Licensed Product or Phase 2b clinical study of a Licensed Product.

**1.124** "**Phase 3 Trial**" means a human clinical trial of a Licensed Product that satisfies the requirements for a Phase 3 study as defined in 21 CFR § 312.21(c) (or any amended or successor regulations) or that satisfies the requirements of similar laws or regulations outside the United States.

**1.125** "**Preexisting Affiliate**" means, with respect to a Party that undergoes a Change of Control, any Affiliate of such Party following such Change of Control that was an Affiliate of such Party prior to the closing of such Change of Control.

**1.126** "**Price Approval**" means, in any country where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical or biologic products, the receipt (or the publication, if publication is required to make such authorization, approval or determination effective) of any government approval, agreement, determination or decision establishing such reimbursement authorization or pricing approval or determination.

**1.127** "**Product-Platform Know-How**" means BMS Collaboration Know-How that [***] relates to a Licensed Development Candidate or a Licensed Product and also relates to the ETB Platform.

**1.128** "**Product-Platform Patents**" means BMS Collaboration Patents that Cover Product-Platform Know-How.

**1.129** "**Product-Specific Patent**" means, with respect to a Licensed Development Candidate or a Licensed Product, each MTEM Collaboration Patent and Joint Collaboration Patent that claims the composition of matter, use, or method of Manufacture of such Licensed Development Candidate or Licensed Product and [***].

**1.130** "**Publishing Party**" has the meaning set forth in Section 12.5.3.

**1.131** "**Receiving Party**" means the Party (or its Affiliates) that receives or otherwise has access to the Confidential Information of the other Party or its Affiliates.

**1.132** "**Reduction Circumstances**" has the meaning set forth in Section 7.6.3.

**1.133** "**Regulatory Authority**" means any applicable supra-national, federal, national, regional, state, provincial, or local governmental or regulatory authority, agency, department, bureau, commission, council, or other entities (e.g., the FDA and EMA) regulating or otherwise exercising authority with respect to activities contemplated in this Agreement, including the Exploitation of any Licensed Products in the Territory.

**1.134** "**Regulatory Exclusivity** " means, with respect to a Licensed Product in a country, any data exclusivity rights or other exclusive right, other than Patent protection , granted, conferred or afforded by any Regulatory Authority in such country or otherwise under Applicable Law with respect to such Licensed Product in such country, which confers exclusive marketing rights with respect to such Licensed Product or prevents a Third Party from using or otherwise relying on the data supporting the approval of the Marketing Approval for such Licensed Product

without the prior written authorization of the Marketing Approval holder, as applicable, including, new chemical entity exclusivity, new use or indication exclusivity, new formulation exclusivity, orphan drug exclusivity, pediatric exclusivity, or data exclusivity.

**1.135** [***].

**1.136** [***].

**1.137** "**Representatives**" means, with respect to a Party, its Affiliates and each of its and their respective officers, directors, employees, consultants, contractors and agents.

**1.138** "**Research Budget**" has the meaning set forth in Section 2.2.

**1.139** "**Research Costs**" means all costs and expenses incurred by or on behalf of MTEM in performing activities, including Manufacturing activities, pursuant to a Research Plan, including (a) FTE Costs, (b) Manufacturing Costs, [***], (c) amounts that MTEM pays to Third Parties involved in the performance of such activities, and (d) all other out-of-pocket costs incurred by or on behalf of MTEM in the performance of a Research Plan, including the cost of materials and binders procured for the performance of a Research Plan, subject to Section 2.2.2.

**1.140** "**Research Plan**" has the meaning set forth in Section 2.2.

**1.141** "**Research Program** " has the meaning set forth in Section 2.1.

**1.142** "**Research Term**" means the period [***] and, unless extended or terminated earlier by written agreement of the Parties, expiring on (a) [***] or (ii) [***], or (b) termination of this Agreement, if terminated earlier than the date in clause (a).

**1.143** "**Royalty Term**" has the meaning set forth in Section 7.6.2.

**1.144** "**Rules**" has the meaning set forth in Section 13.6.3.

**1.145** "**Selling Party**" has the meaning set forth in Section 1.109.

**1.146** "**Senior Officer**" means, with respect to MTEM, its Chief Executive Officer or his/her designee, and with respect to BMS, its Senior Vice President, Discovery Biotherapeutics or his/her designee.

**1.147** "**Sublicensee**" means a Third Party to whom BMS (or a Sublicensee or Affiliate of BMS) grants any right under the rights granted to BMS hereunder, beyond the mere right to purchase Products from BMS or its Affiliates. For clarity, Sublicensee does not include wholesalers and distributors that do not Develop, Manufacture or promote the sale of Licensed Products and do not make any royalty, profit-share, or other payment to BMS or its Affiliates or Sublicensees other than payment for the purchase of Licensed Products for resale.

**1.148** "**Target**" means a specific protein that is associated with an ENSEMBL GENE ID, together with any and all naturally occurring mutations, variants and alternative sequences thereof, and fragments or peptides thereof that are of sufficient specificity, sequence identity, sequence similarity, or length to still uniquely match the original ENSEMBL GENE ID. For avoidance of doubt, "Target" also encompasses cell surface receptors, membrane-bound proteins, cytosolic proteins, and variants of any of the foregoing that are subject to post-translational modifications that are recognized by antibodies, antibody fragments, or immunoglobulin-like domains.

**1.149** "**Target Availability Notice**" has the meaning set forth in Section 2.3.3.

**1.150** "**Target Nomination Notice**" has the meaning set forth in Section 2.3.3.

**1.151** "**Target Selection Period**" has the meaning set forth in Section 2.3.1.

**1.152** "**Term**" has the meaning set forth in Section 11.1.

**1.153** "**Terminated Target**" means (a) [***], (b) any Reserved Target that [***] ceases to be a Reserved Target pursuant to Section 2.3.2, (c) any Collaboration Target with respect to which BMS does not exercise the Option as provided in Section 4.3, and (d) any Collaboration Target with respect to which this Agreement is terminated pursuant to Section 11.2.2.

**1.154** "**Territory**" means worldwide.

**1.155** "**Third Party**" means any Person other than MTEM, BMS, or an Affiliate of MTEM or BMS.

**1.156** "**Third Party IP Agreement**" has the meaning set forth in Section 8.6.2.

**1.157** "**Third Party Required IP**" has the meaning set forth in Section 7.6.5.

**1.158** "**Transferred MTEM Materials**" has the meaning set forth in Section 2.8.1.

**1.159** "**Transferred MTEM Materials IP**" has the meaning set forth in Section 2.8.2.

**1.160** "**Unavailable**" means, with respect to a Target, that such Target is, at the applicable time, the subject of (a) any *bona fide* internal research program at MTEM for which MTEM is actively pursuing, or has committed a budget with respect to, or has entered into a Third Party contract with respect to, or any other bona fide internal research program with respect to, the identification of potential products Directed to such Target, or (b) bona fide negotiations of a term sheet or other bona fide negotiations to enter into a definitive agreement or an executed definitive agreement, in each case between MTEM and a Third Party, pursuant to which such Third Party has or would have development and commercialization rights, or an option for such rights, for products Directed to such Target.

**1.161** "**Valid Claim**" means: (a) a claim of any issued or granted and unexpired Patent which has not, in the country or jurisdiction of grant or issuance, been donated to the public, disclaimed, or held invalid or unenforceable by a court of competent jurisdiction in an unappealed or final and unappealable decision; and (b) a claim of any patent application which has not, in the country or jurisdiction in question, been cancelled, withdrawn, or abandoned (without the possibility of appeal, reinstatement or re-filing). Notwithstanding the foregoing, on a country-by-country or jurisdiction-by-jurisdiction basis, a patent application pending for more than seven (7) years from [***] will not be considered to be a Valid Claim for purposes of this Agreement unless and until a Patent that meets the criteria set forth in clause (a) above with respect to such application issues or is granted.

**1.162** "**Withholding Party**" has the meaning set forth in Section 7.9.1.

**1.163** "**Withholding Tax Action**" has the meaning set forth in Section 7.9.3.

## ARTICLE 2

## RESEARCH

### 2.1 Research Program Overview

**1.164** . For each Collaboration Target (including the Initial Target, each Additional Target and, if applicable [***]) , MTEM shall perform activities through completion of one or more non-GLP NHP study(ies), as specified in the applicable Research Plan, to generate ETBs Directed to such Collaboration Target (each, a "**Research Program**"). Such activities are aimed at generating ETBs that are Directed to the applicable Collaboration Target and are intended to be suitable to designate as a Development Candidate that, following the License Effective Date, BMS may progress as a Licensed Product into further Development and Commercialization. The term of each Research Program shall be as set forth in the applicable agreed upon Research Plan.

### 2.2 Research Activities .

**2.2.1 Development and Approval of Research Plans**. MTEM will prepare, in coordination with BMS and for review and approval by the JRC in accordance with Section 3.5, a research plan for each Research Program (each, a "**Research Plan**") which shall set forth (a) a high-level description of the activities to be conducted (and projected high-level estimates of the timelines) through non-GLP NHP study(ies) in respect of such Research Program, including activities to determine or achieve desirable therapeutic attributes for a Development Candidate, (b) a reasonably detailed budget of the Research Costs for the activities to be conducted pursuant to such plan, including anticipated FTEs intended to be allocated to activities under such plan (the "**Research Budget**"), (c) the data, results, and other information to be included in the relevant Option Exercise Data Package, and (d) criteria for designating an ETB Directed to the applicable Collaboration Target as a Development Candidate, including desirable therapeutic attributes of a Development Candidate. The Research Plan for the Research Program for the Initial Target as of the Effective Date ("**Initial Research Plan**"), including the Research Budget for the Research

Program for the Initial Target as of the Effective Date ("**Initial Research Budget**") is attached hereto as Schedule 1.81. Upon designation of each Additional Target [***], MTEM will prepare the Research Plan, including the Research Budget, for the corresponding Research Program for review and approval by the JRC in accordance with Section 3.5. If the terms of a Research Plan contradict or create inconsistencies with the terms of this Agreement, then the terms of this Agreement shall govern.

**2.2.2 Conduct of Research Programs**. MTEM (directly or through its Affiliates or subcontractors) shall use Commercially Reasonable Efforts to perform the activities under each Research Plan in accordance with the terms of such Research Plan (including the Research Budget and timeframes therein) and the terms of this Agreement, and will perform such activities in a professional manner and in accordance with all Applicable Laws. [***]. For clarity, except as set forth in Section 2.2.4, MTEM shall not be obligated to procure materials or incur other out-of-pocket costs or undertake any work with respect to a Research Program if such out-of-pocket costs or the cost of such work would exceed the Research Budget set forth in the applicable Research Plan, as the same may be updated or amended in accordance with Section 2.2.3.

**2.2.3 Amendments to Research Plans**. From time to time, the Parties may prepare updates and amendments, as appropriate, to a Research Plan (including any resulting changes to the Research Budget) for review and approval by the JRC in accordance with Section 3.5. Without limiting the foregoing, [***], the Initial Research Plan will be reviewed and updated as the JRC may decide. Notwithstanding anything to the contrary herein, including Section 3.5, but subject to Section 2.2.4, if there is or will be any [***], the JRC shall either (a) [***] or (b) [***].

**2.2.4 Research Costs**. [***] shall be responsible for all Research Costs incurred in the performance of each Research Plan [***] except as set forth herein, including each Research Program [***]. [***] shall be responsible for Research Costs incurred in the performance of the Research Program for the Initial Target in accordance with the Initial Research Plan and not exceeding [***] agreed by the Parties as of the Effective Date and attached hereto as Schedule 1.81. If, at any time after the Effective Date, the Initial Research Plan or the Initial Research Budget is updated or amended pursuant to Section 2.2.3, [***] shall bear all Research Costs under such updated or amended Initial Research Plan or Initial Research Budget that exceed [***] attached hereto as Schedule 1.81 ("**Excess Research Costs**"). [***] shall reimburse [***] pursuant to Section 7.3 for all Research Costs incurred in accordance with all Research Plans and Research Budgets, as the same may be updated or amended in accordance with Section 2.2.3 (other than the Initial Research Plan and Initial Research Budget, except for Excess Research Costs).

**2.2.5 Research Protocols**. MTEM shall prepare the research protocols required for the implementation of the non-GLP NHP studies under the Research Plan (each, a "**NHP Study Protocol**") [***].

**2.3 Selection of Additional Targets and Reserved Targets**.

**2.3.1 Additional Targets**. During the period prior to the [***] anniversary of the Effective Date (the "**Target Selection Period**"), BMS shall have the right to select a total of up to [***] Targets (in addition to the Initial Target) as Collaboration Targets under this Agreement (each, an "**Additional Target**"), which Target(s) may be a Reserved Target or any other Target that is Available, as determined in accordance with the gatekeeper process set forth in Section 2.3.3. Notwithstanding the foregoing, if BMS does not select [***] Additional Targets prior to the [***] anniversary of the Effective Date, but designates a Reserved Target [***], [***], during the [***] period prior to the [***] anniversary of the Effective Date, then the Target Selection Period will end on the later of the [***] anniversary of the Effective Date or [***] after the date such Reserved Target [***] is first designated by BMS pursuant to Section 2.3.2. [***].

**2.3.2 Reserved Targets**. During the period prior to the [***] anniversary of the Effective Date and prior to selection of [***] Additional Targets, BMS shall have the right to designate a total of up to [***] Targets as reserved Targets (each, a "**Reserved Target**") in accordance with this Section 2.3.2 and the gatekeeper process set forth in Section 2.3.3. The maximum number of Reserved Targets shall decrease following the selection of each Additional Target [***] as follows: (a) upon selection of the [***] Additional Target by BMS (regardless of whether such Additional Target is a Reserved Target), the maximum number of Reserved Targets shall be [***] and, if BMS had previously designated [***] Reserved Targets, then, immediately upon receipt of the Target Availability Notice confirming such Additional Target is Available in accordance with Section 2.3.3, BMS shall provide written notice to the Gatekeeper and to MTEM identifying which of the previously designated Reserved Targets will cease to be a Reserved Target (and, thereafter, such Target will be deemed a Terminated Target); and (b) upon selection of the [***] Additional Target by BMS (regardless of whether such Additional Target is a Reserved Target), the remaining Target(s) that were previously designated Reserved Target(s) shall cease to be Reserved Target(s) and, thereafter, such Target(s) will be deemed Terminated Target(s). Subject to the foregoing and the remainder of this Section 2.3.2, if a Target that BMS identifies as a proposed Reserved Target in a Target Nomination Notice is Available, as determined in accordance with the gatekeeper process set forth in Section 2.3.3, then such Target shall be designated as a Reserved Target from [***] until the earlier of (i) the date that is [***] after the date of such Target Availability Notice or (ii) BMS' selection of Additional Targets as provided above (the "**Reservation Period**"). [***]. For clarity, upon expiration of the Reservation Period with respect to each Reserved Target [***] and, in any event, upon BMS' selection of [***] Additional Targets, regardless of whether such Additional Target(s) were Reserved Targets, each Reserved Target [***] shall cease to be a Reserved Target, each such Target shall be deemed a Terminated Target, and the terms of Section 5.6 shall no longer apply to such Target.

**2.3.3 Gatekeeper**. [***], MTEM and BMS shall engage a Third Party (the "**Gatekeeper**") for the purpose of maintaining a list of Unavailable Targets and confirming whether Targets nominated by BMS are Available or Unavailable. Concurrently with MTEM's engagement of the Gatekeeper, the Parties and the Gatekeeper shall enter into a three-party agreement (the "**Gatekeeper Agreement**") governing the process of Target selection under this Agreement through the use of the Gatekeeper. The Gatekeeper Agreement will provide that, if BMS wishes to nominate a Target as a Collaboration Target or a Reserved Target (subject to Section 2.3.2) , then (a) BMS shall provide written notice to the Gatekeeper ("**Target Nomination**

**Notice**") identifying the proposed Target and indicating whether (i) BMS wishes to select the proposed Target as [***] Additional Targets [***] or (ii) BMS wishes to designate the proposed Target as [***] Reserved Targets [***], (b) the Gatekeeper shall notify MTEM within [***] of receipt of the Target Nomination Notice that BMS has provided such Target Nomination Notice (without identifying the proposed Target to MTEM), indicating whether the unidentified proposed Target is to be selected as an Additional Target [***] or designated as a Reserved Target [***] (c) within [***] after MTEM's receipt of such notice, MTEM shall provide the Gatekeeper with an updated list of Unavailable Targets as of the date of such Target Nomination Notice (which updated list shall remove any Target formerly identified as an Unavailable Target that no longer satisfies the definition of an Unavailable Target), and (d) within [***] after the Gatekeeper's receipt of MTEM's updated list of Unavailable Targets, the Gatekeeper shall notify the Parties in writing whether the nominated Target is Available or Unavailable (a "**Target Availability Notice**"). If the nominated Target is Available, the Target Availability Notice will include the identity of such Target and (x) if such Target was identified in the Target Nomination Notice as a Target BMS wished to select [***] Additional Targets ([***]), such Target shall be designated as a Collaboration Target under this Agreement and the Parties shall amend Schedule 1.34, effective as of the date of the Target Availability Notice, to include such Target as a Collaboration Target, or (y) if such Target was identified in the Target Nomination Notice as a Target BMS wished to designate as a Reserved Target ([***]), such Target shall be designated a Reserved Target. If the nominated Target is Unavailable, the Target Availability Notice will specify that such Target is Unavailable without disclosing the identity of such Target, and BMS shall have the right to nominate another Target to be an Additional Target ([***]) or a Reserved Target ([***]), as the case may be, in accordance with this Section 2.3. The Parties shall share equally all expenses relating to the Gatekeeper.

**2.4 Subcontracting**. MTEM shall have the right to subcontract its obligations under this Agreement to Third Party subcontractors (subject to BMS' prior written consent as provided below) and Affiliates, subject to any qualifications that are set forth in an applicable Research Plan; *provided* that the applicable provisions of each agreement between MTEM and a Third Party subcontractor shall be materially consistent with corresponding provisions of this Agreement, including Section 8.1 and ARTICLE 12. MTEM shall not engage any Third Party subcontractor to conduct any such obligations without BMS' prior written consent, in each case not to be unreasonably withheld, conditioned or delayed, *provided* that (a) BMS' approval of a Research Plan that provides for certain activities to be conducted by one or more Third Party subcontractor(s) shall be deemed to constitute BMS' consent to engage subcontractor(s) to conduct such activities (without further consent), (b) BMS' consent will not be required for any activities that a Research Plan provides do not require consent, and (c) any Third Party subcontractor listed in a Research Plan shall be deemed to have been consented to by BMS for purposes hereof. MTEM will be responsible for the effective and timely management of, and payment, of its subcontractors, at MTEM's sole cost and expense, subject to reimbursement by BMS pursuant to Section 7.3. The engagement of any subcontractor pursuant to this Section 2.4 shall not relieve MTEM of its obligations under this Agreement and MTEM shall be fully responsible for any acts or omissions of its subcontractors and for the performance of this Agreement.

**2.5 Records; Reporting**.

**2.5.1 Records**. MTEM shall maintain, and shall cause its Affiliates and Third Party subcontractors to maintain, records of activities under each Research Plan in sufficient detail and in good scientific manner appropriate for scientific, patent and regulatory purposes, and in compliance with Applicable Law, which shall be complete and accurate and shall properly reflect all work done and results achieved in the performance of Research Plan activities. Such records shall be retained by or on behalf of MTEM for at least as long as required by Applicable Law.

**2.5.2 Progress Reports** . During any period that MTEM is conducting activities under a Research Plan, MTEM shall provide to the JRC (or, if the JRC has disbanded, directly to BMS), within [***] after the end of each Calendar Quarter, (a) an update on MTEM's progress under the Research Plan during the relevant Calendar Quarter, including a summary of any results and data generated by MTEM under such Research Plan during the relevant Calendar Quarter, (b) [***], and (c) [***]. All such updates provided by MTEM shall be MTEM's Confidential Information and shall be subject to the terms of ARTICLE 12.

**2.6 Applicable Law**. MTEM will, and will require its Affiliates and subcontractors to, comply with all Applicable Law in its and their conduct of each Research Plan, including where applicable GMP, GLP and GCP (or similar standards).

**2.7 No Guarantee2.7.1** . The Parties acknowledge and agree that no outcome or success is or can be assured and that failure to achieve desired results will not in and of itself constitute a breach or default of any obligation in this Agreement.

**2.8 Material Transfer**.

**2.8.1 Transfer**. On a Collaboration Target-by-Collaboration Target basis, [***] not more than once per Collaboration Target, BMS may provide a written request to MTEM to transfer to BMS [***] (collectively, the "**Transferred MTEM Materials**"). [***]. Such written request will specify the requested Transferred MTEM Materials, the requested reasonable quantities thereof, and the purposes for which BMS proposes to use such Transferred MTEM Materials. MTEM shall transfer the requested and agreed-upon Transferred MTEM Materials to BMS promptly [***] solely for the following purposes (the "**Permitted BMS Purposes**") [***]. BMS shall only use the Transferred MTEM Materials for the Permitted BMS Purposes and BMS agrees that such Transferred MTEM Materials shall be used in compliance with Applicable Law and the terms and conditions of this Agreement. Without limiting the foregoing, BMS shall not (i) seek or obtain Patent or other intellectual property protection on any Transferred MTEM Materials or Transferred MTEM Materials IP, (ii) attempt to reverse engineer, synthesize, sequence or design around any Transferred MTEM Materials, or (iii) generate any progeny, mutants, derivatives, modifications, improvements, analogs or variants of any Transferred MTEM Materials or combine or incorporate any of the foregoing with or in any other substances unless such activities are expressly agreed to in writing by MTEM. All Transferred MTEM Materials shall be the Confidential Information of MTEM and BMS shall not transfer, disclose or otherwise provide any Transferred MTEM Materials (or any progeny, mutants, derivatives, modifications,

improvements, analogs, variants or combinations thereof) to any Third Party unless authorized in writing in advance by MTEM.

**2.8.2 License; Ownership**. [***], MTEM shall grant, and hereby grants, to BMS a non-exclusive license under the Patents and Know-How Controlled by MTEM necessary to use such Transferred MTEM Materials solely for the Permitted BMS Purposes. Any and all Know-How made or conceived by or on behalf of BMS using Transferred MTEM Materials shall be referred to herein, collectively, as "**Transferred MTEM Materials IP**." [***]. All Transferred MTEM Materials shall remain the sole property of MTEM and shall only be used by BMS in furtherance of the Permitted BMS Purposes, and all Transferred MTEM Materials shall be returned to MTEM or destroyed by BMS, in MTEM's sole discretion, upon [***] or, if earlier, the earliest of (a) [***], (b) [***], or (c) [***].

## ARTICLE 3

## GOVERNANCE

**3.1 Joint Research Committee**. Within [***] after the Effective Date, or such other time period as agreed to by the Parties, the Parties shall establish a Joint Research Committee (the "**Joint Research Committee**" or "**JRC**"). The JRC shall consist of [***] members from each Party, each with the requisite experience and seniority to enable such person to make decisions on behalf of such Party with respect to the issues falling within the responsibilities of the JRC. From time to time, each Party may replace one or more of its members of the JRC by providing prior written notice (which may be by email) to the other Party.

**3.2 Specific Responsibilities of the JRC**. Until the expiration of the Research Term, the JRC shall review and oversee the performance of the Research Plans. In particular, the JRC shall:

**3.2.1** review and approve any updates or amendments to the Initial Research Plan or the Initial Research Budget;

**3.2.2** with respect to each subsequent Research Program other than the Research Program for the Initial Target, review and approve the Research Plan, including the associated Research Budget, for such Research Program, and any updates or amendments thereto;

**3.2.3** review and discuss the progress and results of material activities under the Research Plans, whether completed or ongoing;

**3.2.4** determine whether to designate as a Development Candidate any ETB Directed to a Collaboration Target and Developed under a Research Program that has not otherwise satisfied the applicable criteria set forth in the Research Plan for such Research Program;

**3.2.5** monitor and implement each Development Technology Transfer;

**3.2.6** perform such other duties as are specifically assigned to the JRC under this Agreement or as may be otherwise mutually agreed by the Parties from time to time.

**3.3 Meetings; Minutes**. The JRC shall meet at least [***] per Calendar Quarter, or as otherwise agreed upon by the Parties. JRC meetings may be held in person or by audio or video conference; provided that unless otherwise agreed, at least [***] per Calendar Year shall be held in person. In-person meetings shall be held at locations alternately selected by the Parties. The Alliance Managers shall be responsible for calling meetings on no less than [***] notice. Each Party shall make all proposals for agenda items and shall provide all appropriate information with respect to such proposed items at least [***] in advance of the applicable meeting; *provided*, that if the input by the JRC is required urgently, a Party may provide its agenda items to the other Party within a shorter period of time in advance of the meeting, or may propose that there not be a specific agenda for a particular meeting, so long as the other Party consents to such later addition of such agenda items or the absence of a specific agenda for such meeting, such consent not to be unreasonably withheld, conditioned, or delayed. The Alliance Managers shall prepare and circulate the minutes of each meeting for review and approval of the Parties within [***] after the meeting. The Parties shall agree on the minutes of each meeting promptly, but in no event later than [***]. If the minutes of any meeting of the JRC are not unanimously approved by [***], then the Party objecting to the approval of such minutes will append a notice of objection with the specific details of the objection to the proposed minutes.

**3.4 Procedural Rules**. The JRC shall have the right to adopt such standing rules as shall be necessary for its work, to the extent such rules are not inconsistent with any terms of this Agreement. A quorum of the JRC shall exist whenever there is present at a meeting at least one representative of each Party. The JRC shall take action by consensus of the representatives present at a meeting at which a quorum exists, with each Party having a single vote irrespective of the number of representatives of such Party in attendance, or by a written resolution signed (in hard copy or electronically) by at least one representative appointed by each Party. Employees or consultants of either Party who are not representatives of the Parties on the JRC may attend meetings of the JRC; provided, that (a) such attendees shall not vote or otherwise participate in the decision-making process of the JRC and shall be bound by obligations of confidentiality and non-disclosure that are at least as stringent as the provisions of ARTICLE 12, and (b) attendance of any non-employee must be pre-approved by the other Party, such approval not to be unreasonably withheld, conditioned or delayed.

**3.5 Decision-Making**.

**3.5.1 JRC Decisions**. All JRC decisions shall be made by unanimous vote, with each Party's members collectively having one vote. If, after reasonable discussion and good faith consideration of each Party's view, the JRC does not reach consensus on a matter within the responsibilities of the JRC, then the matter shall first be referred to the Senior Officers, who shall confer in good faith on the resolution of the matter.

**3.5.2 Final Decision-Making Authority**. If the Senior Officers do not agree on the resolution of any matter referred to them pursuant to Section 3.5.1 within [***] after such matter was first referred to them (or such other time period as may be agreed upon by the Senior Officers), then subject to the remainder of this Section 3.5.2, [***] shall have final decision-making authority [***]; *provided*, that [***].

**3.5.3 Other Disputes**. For clarity, disputes arising between the Parties in connection with or relating to this Agreement or any document or instrument delivered in connection herewith that are outside of the responsibilities of the JRC shall be resolved pursuant to Section 13.6.

**3.6 Discontinuation of the JRC**. The JRC shall continue to exist until the first to occur of: (a) the Parties mutually agreeing to disband the JRC and (b) the date that is [***] after the end of the Research Term (unless otherwise mutually agreed by the Parties in writing). Notwithstanding anything herein to the contrary, upon the first to occur of the foregoing (a) or (b), the JRC shall automatically dissolve and shall have no further rights or obligations under this Agreement, and thereafter each Party shall designate, to the extent necessary, a contact person for the exchange of information under this Agreement, or such exchange of information shall be made through the Alliance Managers, and decisions of the JRC called for by this Agreement shall be decisions to be made by the Parties, subject to the other terms and conditions of this Agreement.

**3.7 Intellectual Property Committee**. Within [***] after the Effective Date, or such other time period as agreed upon by the Parties, the Parties shall establish an intellectual property committee ("**Intellectual Property Committee**" or "**IPC**"), consisting of an equal number of representatives from each Party having relevant expertise, to discuss prosecution strategy and coordinate the prosecution, maintenance and enforcement of Joint Collaboration Patents, Product-Specific Patents and Product-Platform Patents, and carry out such other functions as are set forth in ARTICLE 8 and as otherwise may be agreed upon by the Parties . IPC meetings may be held in person or by audio or video conference [***] per Calendar Quarter, or as otherwise agreed upon by the Parties. From time to time, each Party may replace one or more of its members of the IPC by providing prior written notice (which may be by email) to the other Party . The IPC will have no decision-making authority, but will act as a discussion forum between the Parties. In addition, each Party may invite a reasonable number of additional subject matter experts or relevant personnel of such Party to participate in discussions and meetings of the IPC. Each Party's representatives on the IPC and all other individuals attending or participating in discussions and meetings of the IPC on behalf of a Party shall be bound by obligations of confidentiality and non-disclosure that are at least as stringent as the provisions of ARTICLE 12.

**3.8 Other Committees** . The Parties may, by mutual agreement, form such other committees or working groups as may be necessary or desirable to facilitate activities under this Agreement.

**3.9 Limitations on Authority**. Each Party shall retain the rights, powers, and discretion granted to it under this Agreement and no such rights, powers, or discretion shall be delegated to or vested in the JRC or the IPC unless such delegation or vesting of rights is expressly provided for in this Agreement or the Parties expressly so agree in writing. The JRC, the IPC and any other committee or working group formed under this Agreement do not have the authority to amend, modify, or waive compliance with this Agreement.

**3.10 Alliance Managers**. Promptly after the Effective Date, each Party shall appoint a person who shall oversee communications between the Parties for all matters between meetings of the JRC and shall have such other responsibilities as the Parties may agree in writing after the Effective Date (each, an "**Alliance Manager**"). The Alliance Managers shall attend JRC meetings as non-voting participants. Each Party may replace its Alliance Manager at any time by providing prior written notice (which may be by email) to the other Party. Each Party shall bear the costs of its Alliance Manager.

**3.11 Expenses**. Each Party shall be responsible for all travel and related costs and expenses for its members and other representatives to attend meetings of, and otherwise participate in, the JRC and the IPC.

## ARTICLE 4

## EXCLUSIVE OPTIONS

**4.1 Option Exercise Data Packages**. Within [***] following completion of the Research Plan for a Research Program, [***], MTEM shall deliver to BMS the Option Exercise Data Package for such Research Program. If BMS reasonably determines that any Option Exercise Data Package is incomplete or that any additional information that is in MTEM's (or its Affiliate's) Control regarding the applicable Collaboration Target or Development Candidates is necessary [***] in determining whether the criteria to be a Development Candidate have been met [***], then, within [***] after BMS' receipt of such Option Exercise Data Package, BMS may give written notice to MTEM specifying the information required to be included in such Option Exercise Data Package or otherwise reasonably requested by BMS ("**Incomplete Data Package Notice**"). Following MTEM's receipt of an Incomplete Data Package Notice, MTEM will [***] deliver to BMS the additional information that is in MTEM's (or its Affiliate's) possession and Control and specified in the Incomplete Data Package Notice and, within [***] of receipt of such additional information, BMS will provide a written acknowledgement to MTEM that the Option Exercise Data Package is complete or will provide another Incomplete Data Package Notice to MTEM. If BMS does not provide any Incomplete Data Package Notice within the [***] period above or, if BMS provides an Incomplete Data Package Notice within such [***] period and, within the [***] period above, does not provide either such written acknowledgement or another Incomplete Data Package Notice, then the Option Exercise Data Package will be deemed complete (a "**Complete Data Package**"). The Parties shall hold a JRC meeting no later than [***] after delivery of a Complete Data Package and, at such meeting, the JRC shall discuss the Complete Data Package and determine which ETBs Directed to the applicable Collaboration Target and

Developed under such Research Program will, [***], be designated as Development Candidates (either because they satisfy the criteria to be a Development Candidate as set forth in the applicable Research Plan or the JRC otherwise determines to designate them as Development Candidates). [***], to the extent that such information is in MTEM's (or its Affiliate's) possession and Control, MTEM shall provide to BMS such additional information regarding the applicable Collaboration Target or Development Candidates as BMS may reasonably request.

**4.2 Option Grant and Exercise**. MTEM hereby grants to BMS, on a Collaboration Target-by-Collaboration Target basis, the exclusive option, exercisable at any time during the applicable Option Term at BMS' sole discretion, to obtain an exclusive license under the MTEM Licensed Know-How and MTEM Licensed Patents to Exploit Licensed Products Directed to such Collaboration Target in the Field in the Territory as set forth in Section 5.1.1 (each, an "**Option**"). BMS may exercise the Option in respect of a Collaboration Target by providing written notice to MTEM of its exercise of such Option ("**Option Exercise Notice**") at any time during the applicable Option Term. Each Option Exercise Notice shall specify the lead Licensed Development Candidate Directed to the applicable Collaboration Target (from the Development Candidates designated by the JRC in accordance with Section 4.1) (the "**Lead LDC**") with respect to which BMS is exercising the Option to obtain an exclusive license under Section 5.1.1 (the "**Lead Option**") and shall specify up to [***] back-up Development Candidates Directed to the applicable Collaboration Target (from the Development Candidates designated by the JRC in accordance with Section 4.1) (each, a "**Back-Up LDC**") with respect to which BMS is exercising or may in the future exercise the Option to obtain an exclusive license under Section 5.1.1 (the "**Back-Up Option**"). On a Collaboration Target-by-Collaboration Target basis, BMS may exercise its Back-Up Option by providing written notice to MTEM of its exercise of such Back-Up Option, identifying the applicable Back-Up LDC(s), (a) [***] or (b) at any time thereafter until [***]. If and when BMS exercises the Back-Up Option, the applicable Back-Up LDCs Directed to the applicable Collaboration Target shall be Licensed Development Candidates. Following delivery of the written notice of Lead Option exercise by BMS or the written notice of any Back-Up Option exercise, upon the applicable License Effective Date, the license set forth in Section 5.1.1 with respect to the Exploitation of each such Licensed Development Candidate and corresponding Licensed Products Directed to the corresponding Collaboration Target shall, and hereby does, automatically become effective. For clarity, BMS shall not have the right to, and shall not, Develop, Manufacture or Commercialize any Development Candidate, or any product containing a Development Candidate, other than Licensed Development Candidate(s).

**4.3 Non-Exercise of the Option**. On a Collaboration Target-by-Collaboration Target basis, if BMS does not exercise the Option with respect to such Collaboration Target prior to expiration of the applicable Option Term, or if BMS notifies MTEM in writing during such Option Term that BMS will not exercise such Option (the date of expiration of such Option Term or such notification by BMS, the "**Option End Date**"), then (a) such Option shall immediately expire on the Option End Date with respect to such Collaboration Target, without any further action required by either Party, (b) such Target shall no longer be a Collaboration Target and shall be deemed a Terminated Target and the terms of Section 5.6.1 and Section

5.6.2 shall no longer apply to such Target, (c) BMS shall have no rights in or to the ETBs Developed under the corresponding Research Program, other than any applicable rights of BMS in BMS Patents and BMS Know-How, and no such ETBs shall be deemed a Development Candidate or a Licensed Development Candidate under this Agreement, and (d), [***].

**4.4 HSR Compliance**.

**4.4.1 HSR Notice**. If BMS determines in good faith upon advice of counsel that an HSR Filing is required to be made under the HSR Act as a result of BMS' exercise of an Option (either the Lead Option or a Back-Up Option) and notifies MTEM of such determination in connection with BMS' delivery of written notice of its election to exercise the Option pursuant to Section 4.2 , then (a) the Parties will file an HSR Filing in accordance with Section 4.4.2, and (b) BMS' election to exercise the applicable Option will not be effective (and BMS will not be obligated to pay the Option Exercise Fee(s) for the designated Licensed Development Candidate(s)) until the HSR Clearance Date, if any.

**4.4.2 HSR Filing** . If BMS notifies MTEM pursuant to Section 4.4.1 that an HSR Filing is required for BMS to exercise an Option, then each of BMS and MTEM will, within [***] of such notice from BMS (or such later time as may be agreed to in writing by the Parties), file with the U.S. Federal Trade Commission ("**FTC**") and the Antitrust Division of the U.S. Department of Justice ("**DOJ**") any HSR Filing required with respect to the transactions contemplated hereby. Each of the Parties agrees to cooperate in the antitrust clearance process, including by furnishing to the other Party such necessary information and reasonable assistance as the other Party may reasonably request in connection with its preparation of any filing or submission that is necessary under the HSR Act and other antitrust requirements, and to furnish promptly with the FTC, DOJ, and any other antitrust authority, any information requested by them in connection with such filings. Each Party shall furnish copies (subject to reasonable redactions for privilege or confidentiality concerns) of, and shall otherwise keep the other Party apprised of the status of any material communications with, and any inquiries or requests for additional information from, the FTC, DOJ and any other antitrust authority, and shall comply promptly with any such inquiry or request. Each Party shall give the other Party the opportunity to review in advance, and shall consider in good faith the other Party's reasonable comments in connection with, any proposed filing or communication with the FTC, DOJ or any other antitrust authority. Each Party shall consult with the other Party, to the extent practicable, in advance of participating in any substantive meeting or discussion with the FTC, the DOJ or any other antitrust authority with respect to any filings, investigation or inquiry and, to the extent permitted by such antitrust authority, give the other Party to the opportunity to attend and participate therein. Each Party will be responsible for its own costs and expenses (other than filing fees, which BMS will pay) associated with any HSR Filing.

**4.4.3 HSR Clearance**. In furtherance of obtaining clearance for an HSR Filing filed pursuant to this Section 4.4 , MTEM and BMS will use their respective Commercially Reasonable Efforts (subject to this Section 4.4.3) to resolve as promptly as practicable any objections that may be asserted with respect to this Agreement or the transactions contemplated

by this Agreement under any antitrust, competition or trade regulatory law. In connection with such clearance for an HSR Filing from the FTC, the DOJ or any other Governmental Authority, neither Party, nor its Affiliates will be required to (a) sell, divest (including through license or a reversion of licensed or assigned rights), hold separate, transfer or dispose of any assets, operations, rights, product lines, businesses or interest therein of such Party or any of its Affiliates (or consent to any of the foregoing actions); or (b) litigate or otherwise formally oppose any determination (whether judicial or administrative in nature) by a Governmental Authority seeking to impose any of the restrictions referenced in clause (a) above.

## ARTICLE 5

## LICENSE GRANTS; EXCLUSIVITY

**5.1 License Grant to BMS**.

**5.1.1 Exclusive License**. Subject to the terms of this Agreement, including Section 5.1.2 and Section 5.1.3, on a Licensed Development Candidate-by-Licensed Development Candidate basis, effective upon the applicable License Effective Date, MTEM, for itself and its Affiliates, hereby grants to BMS an exclusive (even as to MTEM and its Affiliates), royalty-bearing license, with the right to grant sublicenses as provided in Section 5.1.2, under the MTEM Licensed Know-How and MTEM Licensed Patents to Exploit such Licensed Development Candidate(s) and corresponding Licensed Products Directed to the corresponding Collaboration Target in the Field in the Territory. [***] .

**5.1.2 Sublicensing** . BMS shall have the right to grant sublicenses, through multiple tiers of sublicenses, under the licenses granted in Section 5.1.1 to Affiliates and Sublicensees; *provided* that any such sublicenses to Sublicensees shall be in writing and shall be consistent with the terms and conditions of this Agreement. In addition, BMS shall require the applicable Affiliate and Sublicensee to comply with the terms of this Agreement that are applicable to such sublicense, including obligations of confidentiality and non-use at least as stringent as those set forth in ARTICLE 12, the reporting, record keeping and audit requirements set forth under ARTICLE 7, and the ETB Platform-related license grant back provisions set forth in Section 5.2.2 . [***]. BMS shall remain directly liable to MTEM with respect to its obligations under this Agreement and for the performance and acts or omissions of all of its Affiliates and Sublicensees. As soon as practicable, but in any event within [***], after the execution of any sublicense agreement with a Sublicensee hereunder, BMS shall notify MTEM that it has entered into such sublicense agreement, identifying the name of the Sublicensee and the scope of such sublicense. [***].

**5.1.3 Retained Rights**. Notwithstanding the exclusive license granted to BMS pursuant to Section 5.1.1, MTEM hereby expressly reserves the right (a) under the MTEM Licensed Know-How and MTEM Licensed Patents to exercise its rights and perform its obligations under this Agreement, whether directly or through one or more Affiliates or permitted subcontractors, and (b) to practice, and to grant licenses under, the MTEM Licensed Know-How and MTEM Licensed Patents, other than (i) Optioned Product-Specific Patents, (ii) BMS Binder

Know-How and BMS Binder Patents, and (iii) [***], outside the scope of the license granted to BMS in Section 5.1.1 and outside the scope of the covenants under Section 5.6.1.

**5.1.4** [***].

**5.2 License Grants to MTEM** .

**5.2.1 Research and Manufacturing License**. BMS hereby grants to MTEM a non-exclusive, fully paid-up, non-transferable (except as provided in Section 13.1) royalty-free license, with the right to grant sublicenses to Affiliates and permitted subcontractors, under the BMS Know-How and BMS Patents, [***], solely to perform MTEM's obligations under the Research Plans and to Manufacture Licensed Development Candidates and Licensed Products in accordance with Section 6.4.1.

**5.2.2 ETB Platform Licenses**. BMS hereby grants to MTEM a non-exclusive, royalty-free and fully paid-up, worldwide, irrevocable and perpetual license, with the right to grant sublicenses through multiple tiers, under any Product-Platform Know-How and Product-Platform Patents, solely to Exploit the ETB Platform, subject to Section 5.6 and Section 5.1.1. [***]. For clarity, BMS hereby expressly reserves the exclusive right under any Product-Platform Know-How and Product-Platform Patents and ETB Platform Technology to exercise its exclusive license under Section 5.1.1 to Develop, Commercialize and otherwise Exploit such Licensed Development Candidate(s) and Licensed Product(s), whether directly or through one or more Affiliates, Sublicensees or subcontractors.

**5.3 Development Technology Transfer**. On a Licensed Development Candidate-by-Licensed Development Candidate basis, following the License Effective Date with respect to such Licensed Development Candidate, MTEM shall perform a Development Technology Transfer with respect to such Licensed Development Candidate in accordance with a Development Technology Transfer plan and budget [***] agreed upon by the Parties, at BMS' sole cost and expense. To assist with the Development Technology Transfer with respect to each Licensed Development Candidate and BMS' Development thereof in accordance with the terms of this Agreement, MTEM will make its personnel reasonably available to BMS during normal business hours to carry out the Development Technology Transfer and respond to BMS' reasonable inquiries with respect thereto and BMS shall reimburse MTEM for all internal costs (at the FTE Rate) and out-of-pocket costs incurred by MTEM in connection with such assistance. For clarity, nothing in this Section 5.3 shall require MTEM to create any new Know-How or undertake any activity or incur any internal or external cost unless such activity or cost is specified in the Development Technology Transfer plan (or associated budget), as mutually agreed by the Parties, or is otherwise reimbursed by BMS.

**5.4 No Implied Licenses**. Except as expressly provided in this Agreement, neither Party shall acquire any license or other intellectual property interest, by implication, estoppel,

or otherwise, under or to any Patents, Know-How, or other intellectual property owned or controlled by the other Party.

**5.5 Rights in Bankruptcy**. All rights and licenses granted under or pursuant to this Agreement are intended to be, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the "**Bankruptcy Code**") or any analogous provisions in any other country or jurisdiction, licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The Parties agree that the licensee of such intellectual property under this Agreement shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code, including Section 365(n) of the Bankruptcy Code, or any analogous provisions in any other country or jurisdiction. All of the rights granted to either Party under this Agreement shall be deemed to exist immediately before the occurrence of any bankruptcy case in which the other Party is the debtor. If a bankruptcy proceeding is commenced by or against either Party under the Bankruptcy Code or any analogous provisions in any other country or jurisdiction, the non-debtor Party shall be entitled to a complete duplicate of (or complete access to, as appropriate) any intellectual property and all embodiments of such intellectual property, which, if not already in the non-debtor Party's possession, shall be delivered to the non-debtor Party within [***] of such request; provided, that the debtor Party is excused from its obligation to deliver such intellectual property to the extent the debtor Party continues to perform all of its obligations under this Agreement and the Agreement has not been rejected pursuant to the Bankruptcy Code or any analogous provision in any other country or jurisdiction.

**5.6 Exclusivity Covenants**.

**5.6.1** [***] **Exclusivity**. (a) On a Collaboration Target-by-Collaboration Target basis, from [***] until (i) [***] or (ii) if earlier, [***], and (b) on a Reserved Target-by-Reserved Target basis, from [***], MTEM shall not license, sublicense, transfer, assign, or take any other action with respect to any MTEM Licensed Know-How or MTEM Licensed Patents that would be inconsistent with or prevent MTEM from granting the exclusive license under Section 5.1.1 with respect to such Collaboration Target or Reserved Target (as applicable) if the Option is exercised, and MTEM shall not Develop, Manufacture or Commercialize any ETB or products Directed to the applicable Target, either solely or in collaboration with a Third Party.

**5.6.2** [***] **Exclusivity**. Subject to Section 11.6, on a Collaboration Target-by-Collaboration Target basis, [***], MTEM shall not, either solely or for or in collaboration with a Third Party, directly or indirectly, Develop, Manufacture, Commercialize or Exploit any ETB or product that is Directed to such Collaboration Target. For clarity, the terms of this Section 5.6.2 shall not apply to any Terminated Target from the time it becomes a Terminated Target.

**5.6.3** [***].

## ARTICLE 6

## DEVELOPMENT, MANUFACTURING AND COMMERCIALIZATION

**6.1 Overview**. On a Collaboration Target-by-Collaboration Target basis, following the License Effective Date with respect to the Licensed Development Candidate(s) Directed to such Collaboration Target, BMS shall have the sole right and responsibility, at its own cost and expense, (a) for the Development of such Licensed Development Candidate(s) and Licensed Products Directed to such Collaboration Target in the Field in the Territory, including the design and conduct of Clinical Studies and filing for and obtaining all Marketing Approvals for Licensed Products, and (b) for the Manufacture (subject to MTEM's obligations pursuant to Section 6.4.1), Commercialization, including filing for and obtaining all Marketing Approvals and Price Approvals, and other Exploitation of such Licensed Development Candidate(s) and Licensed Products Directed to such Collaboration Target in the Field in the Territory.

**6.2 Development** .

**6.2.1 Reporting**. On a Collaboration Target-by-Collaboration Target basis, following the License Effective Date with respect to the Licensed Development Candidate(s) Directed to such Collaboration Target, until [***], BMS shall update MTEM on a [***] basis regarding its Development activities with respect to Licensed Products Directed to such Collaboration Target at a level of detail reasonably necessary for MTEM to determine BMS' compliance with its obligations under Section 6.6. BMS shall provide further information as MTEM may reasonably request regarding the foregoing.

**6.2.2 Records** . BMS shall, and shall cause its Affiliates, Sublicensees and Third Party subcontractors to maintain, records in sufficient detail and in good scientific manner appropriate for scientific, patent and regulatory purposes, and in compliance with Applicable Law, which shall be complete and accurate in all material respects and shall properly reflect all work done and results achieved in the performance of its Development activities hereunder. Such records shall be retained by or on behalf of BMS for at least as long as required by Applicable Law.

**6.3 Regulatory Matters** .

**6.3.1 Responsibility**. On a Collaboration Target-by-Collaboration Target basis, following the License Effective Date with respect to the Licensed Development Candidate(s) Directed to such Collaboration Target, BMS shall have the sole right and responsibility, at its own cost and expense, to (a) prepare, file and maintain INDs, Drug Approval Applications, and other Marketing Approvals and regulatory filings related to such Licensed Development Candidate(s) and Licensed Products, each in its own name, and (b) communicate with Regulatory Authorities with respect to Licensed Products Directed to such Collaboration Target, either by itself or with or through one or more Affiliates or Third Parties.

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

**6.3.2 Ownership** . Ownership of all right in and to all INDs, Drug Approval Applications , Marketing Approvals, Price Approvals and other regulatory filings for any Licensed Products in the Field in each country of the Territory will be held in the name of BMS or its designated Affiliate, Sublicensee or Third Party of BMS's choosing.

**6.3.3 Right of Reference** . On a Collaboration Target-by-Collaboration Target basis, effective upon the License Effective Date with respect to any Development Candidate Directed to the applicable Collaboration Target, MTEM hereby grants BMS, its Affiliates and Sublicensees a "Right of Reference," as that term is defined in 21 C.F.R. § 314.3(b) and any foreign counterpart to such regulation, to any regulatory documentation held by MTEM or its Affiliates to the extent necessary [***] for the submission, approval or maintenance of Marketing Approval of any Licensed Product Directed to such Collaboration Target in the Field in the Territory. If requested by BMS, MTEM will provide a signed statement to this effect in accordance with 21 C.F.R. §314.50(g)(3) or any foreign counterpart to such regulation.

**6.4 Manufacturing.**

**6.4.1 MTEM Manufacturing Obligations**. MTEM shall be responsible for all Manufacturing activities necessary to perform each Research Plan, including the Initial Research Plan, and shall conduct such Manufacturing activities directly or through one or more Third Party contract manufacturers approved by BMS (such approval not to be unreasonably withheld, conditioned or delayed), the costs of which (at the Manufacturing Cost, [***]) shall constitute Research Costs and shall be included in the applicable Research Budget, including the Initial Research Budget. On a Licensed Product-by-Licensed Product basis, following the License Effective Date for the corresponding Licensed Development Candidate, MTEM shall Manufacture and supply such Licensed Product (and any corresponding materials and reagents agreed upon by the Parties) to BMS or its designee, directly or through one or more Third Party contract manufacturers approved by BMS (such approval not to be unreasonably withheld, conditioned or delayed), in [***] for up to [***] (or more as the Parties may agree in writing) in the first Phase 1 Trial of such Licensed Product (in each case, such quantities and the schedule for delivery shall be agreed upon in advance by the Parties in a supply agreement or otherwise); *provided* that, if BMS requests to assume, or the Parties mutually agree that BMS will assume, responsibility for Manufacture of such Licensed Product for any such [***] Phase 1 Trial, then, at the time of such request or agreement, BMS shall assume and be responsible for such Manufacture, directly or through one or more Third Party contract manufacturers (as elected by BMS in its discretion), and MTEM shall have no further obligation to Manufacture such Licensed Product or any corresponding materials or reagents. The Parties shall negotiate in good faith the terms of one or more supply agreement(s) (and corresponding quality agreement(s)) for the Manufacture and supply of Licensed Product(s) by MTEM following the License Effective Date for the corresponding Licensed Development Candidate(s), which supply agreement(s) will include support by MTEM of a technology transfer to BMS pursuant to a Manufacturing technology transfer plan to be agreed by the Parties as provided in Section 6.4.2. Such supply agreement(s) and corresponding quality agreement(s) shall be put in place no later than [***] (or such longer period as may be agreed by the Parties) following the License Effective Date or the start of clinical supply Manufacture, whichever occurs first. The supply price to be paid by BMS to MTEM for

Manufacture and supply of each Licensed Product following the applicable License Effective Date shall be (a) the Manufacturing Cost, [***] for [***] the [***] in a Phase 1 Trial and (b) the Manufacturing Cost, [***] for the [***] in a Phase 1 Trial.

**6.4.2 Technology Transfer**. At the time the Parties negotiate each supply agreement for a Licensed Product pursuant to Section 6.4.1, the Parties shall agree upon a Manufacturing technology transfer plan and budget (of FTE Costs and out-of-pocket costs incurred by MTEM) and MTEM shall perform technology transfer in respect of the Manufacturing of the applicable Licensed Product in accordance with the agreed upon Manufacturing technology transfer plan and budget, at BMS' sole cost and expense. MTEM will provide reasonable technical assistance in connection with such Manufacturing technology transfer, including by making its personnel reasonably available to BMS during normal business hours and responding to BMS' reasonable inquiries with respect thereto, and [***]. For clarity, nothing in this Section 6.4.2 shall require MTEM to create any new Know-How, undertake any additional Manufacturing activities, or [***]. For clarity, unless otherwise agreed by the Parties, the Manufacturing technology transfer plan shall not include any activity or cost covered by the Development Technology Transfer plan and budget.

**6.4.3 BMS Obligations**. Following completion of the Manufacturing technology transfer pursuant to Section 6.4.2 with respect to Licensed Product(s) Directed to a Collaboration Target, BMS, either directly or through one or more Third Party contract manufacturers, BMS shall have the sole right and responsibility, at its own cost and expense, for all Manufacturing activities necessary for the Development and Commercialization of such Licensed Product(s).

**6.5 Commercialization**. BMS will have sole and exclusive control, at its own cost and expense, over all matters relating to Commercialization of Licensed Products in the Field in the Territory, either by itself or with or through one or more Affiliates, Sublicensees or Third Parties. BMS shall update MTEM [***] regarding its Commercialization activities with respect to the Licensed Products in the Territory. Each such update shall summarize BMS', its Affiliates' and Sublicensees' Commercialization activities in the Territory with respect to Licensed Products Directed to each Collaboration Target for which BMS has exercised its Option, at a level of detail reasonably necessary for MTEM to determine BMS' compliance with its obligations under Section 6.6. BMS shall provide further information as MTEM may reasonably request regarding the foregoing. BMS or its designated Affiliates or Sublicensees will select and own all trademarks used in connection with Commercialization of Licensed Product(s) in the Field in the Territory and MTEM will not use nor seek to register, anywhere in the Territory, any trademark that is confusingly similar to any trademark used by or on behalf of BMS, its Affiliates or Sublicensees in connection with any Licensed Product.

**6.6 Diligence Obligations**. On a Collaboration Target-by-Collaboration Target basis, following the License Effective Date with respect to the Licensed Development Candidate(s) Directed to such Collaboration Target, BMS shall use Commercially Reasonable Efforts (a) to Develop and to obtain Marketing Approval and, where applicable, Price Approval for [***] Directed to such Collaboration Target in each Major Market and (b) to Commercialize [***] in each Major Market following receipt of Marketing Approval.

**6.7 Applicable Law**. BMS will, and will require its Affiliates and Sublicensees to, comply with all Applicable Law in its and their performance of obligations and exercise of rights under this Agreement.

## ARTICLE 7

## FINANCIAL PROVISIONS

**7.1 Upfront Payment**. Within [***] after the Effective Date, BMS shall pay to MTEM the non-refundable, non-creditable sum of Seventy Million Dollars ($70,000,000).

**7.2 Option Exercise Fees**. O n a Licensed Development Candidate-by-Licensed Development Candidate basis, BMS shall pay to MTEM an Option exercise fee of [***] for each Licensed Development Candidate with respect to which BMS exercises the Option in respect of the corresponding Collaboration Target (each, an "**Option Exercise Fee**") within [***] of the later of (a) [***], or (b) [***]. In the event that BMS exercises its Back-Up Option in relation to up to [***] additional Licensed Development Candidates, BMS shall pay to MTEM a Back-Up Option exercise fee of [***] within [***] Business Days of the date BMS delivers to MTEM written notice of its exercise of the Back-up Option. Following the exercise of such Back-Up Option, the applicable back-up candidates shall be Licensed Development Candidates.

**7.3 Research Costs and Technology Transfer Payments**. For each Research Program other than the Research Program for the Initial Target (except as set forth herein), [***] shall bear all Research Costs incurred by [***] in accordance with the Research Budget applicable to such Research Program, as the same may be updated or amended pursuant to Section 2.2.3. In addition, with respect to the Research Program for the Initial Target, [***] shall bear all Excess Research Costs. [***] shall bear [***] internal and external costs in connection with each Development Technology Transfer and Manufacturing technology transfer as provided in Section 5.3 and Section 6.4.2, respectively ("**Technology Transfer Costs**"). Following the end of each Calendar Quarter in which [***] incurs any Research Costs (with respect to all Research Programs other than the Research Program for the Initial Target) [***], MTEM shall submit to BMS an invoice setting forth the total [***] incurred by MTEM, including reasonable supporting documentation for any FTE costs, [***], during such Calendar Quarter or month, respectively. BMS shall pay all undisputed [***] within [***] after receipt of each invoice.

**7.4 Development and Regulatory Milestones**.

**7.4.1 Milestone Payments**. In partial consideration of the rights granted by MTEM to BMS hereunder, on a Collaboration Target-by-Collaboration Target basis, BMS shall pay to MTEM the non-refundable, non-creditable milestone payments upon the first achievement of each of the following milestone events for the first Licensed Product Directed to such Collaboration Target to achieve such milestone event (whether by or on behalf of BMS or its Affiliates or Sublicensees, *provided* that subsequent milestone events not met by the first Licensed

Product may be achieved by a different Licensed Product Directed to the same Collaboration Target) as follows:

| Milestone Event | Milestone Payment for the 1st Indication | Milestone Payment for the 2nd Indication | Milestone Payment for the 3rd Indication |
|---|---|---|---|
| #1: [***] | [***] | [***] | [***] |
| #2: [***] | [***] | [***] | [***] |
| #3: [***] | [***] | [***] | [***] |
| #4: [***] | [***] | [***] | [***] |
| #5: [***] | [***] | [***] | [***] |
| #6: [***] | [***] | [***] | [***] |
| #7: [***] | [***] | [***] | [***] |
| #8: [***] | [***] | [***] | [***] |
| #9: [***] | [***] | [***] | [***] |

**7.4.2 Payment**. BMS shall pay to MTEM the applicable milestone payment within [***] after the first achievement of any milestone event set forth in Section 7.4.1 by or on behalf of BMS or its Affiliates or Sublicensees. If any milestone event is achieved without the achievement of any earlier listed milestone event applicable to the same jurisdiction (or not specific to a jurisdiction), then BMS will pay to MTEM the milestone payment applicable to such earlier milestone event at the same time BMS pays the applicable milestone payment. For example, if milestone event #3 becomes due before payment for milestone event #2, then upon achievement of milestone event #3 both the milestone payments for milestone event #2 and milestone event #3 shall be due and payable. For clarity, if any of milestone events #4 through #9 is achieved before payment for any of milestone events #1 through #3, then the milestone payment for each of milestone event #1 through #3 (to the extent not previously paid) will be due and payable upon achievement of any of milestone events #4 through #9. Further for clarity, each milestone payment in this Section 7.4 shall be payable upon the achievement of the corresponding milestone event by the first Licensed Product Directed to a particular Collaboration Target to achieve such milestone event and no amounts shall be due for subsequent or repeated achievements of such milestone event by another Licensed Product Directed to the same Collaboration Target; *provided* that subsequent milestone events not met by the first Licensed Product may be achieved by a different Licensed Product Directed to the same Collaboration Target.

**7.5 Sales -Based Milestones**.

**7.5.1 Sales Milestone Payments**. In partial consideration of the rights granted by MTEM to BMS hereunder, on a Collaboration Target-by-Collaboration Target basis, BMS shall pay to MTEM the non-refundable, non-creditable milestone payments upon achievement of each of the following milestone events [***] (whether by or on behalf of BMS or its Affiliates or Sublicensees) as follows:

| **Calendar Year Net Sales** [***] **in the Territory** | **Sales Milestone Payments** |
|---|---|
| Equal or exceed [***] | [***] |
| Equal or exceed [***] | [***] |
| Equal or exceed [***] | [***] |

**7.5.2 Payment**. BMS shall pay to MTEM the applicable milestone payment within [***] after the first achievement of any milestone event set forth in this Section 7.5 by or on behalf of BMS or its Affiliates or Sublicensees. For clarity, each milestone payment set forth in the table above shall be paid only once with respect to a Collaboration Target, upon first achievement of the corresponding milestone event by [***], regardless of the number of times such event is achieved with respect to such Collaboration Target.

**7.6 Royalties** .

**7.6.1 Royalty Rate**. As further consideration for the rights granted to BMS under this Agreement, subject to the other terms of this Section 7.6, on a Collaboration Target-by-Collaboration Target basis, BMS shall make [***], non-refundable, non-creditable royalty payments to MTEM on the portion of Calendar Year Net Sales of [***] sold in the Territory at the applicable rate set forth below:

| **Calendar Year Net Sales in the Territory** [***] | **Royalty Rate** |
|---|---|
| For that portion of Calendar Year Net Sales [***] | [***] |
| For that portion of Calendar Year Net Sales [***] | [***] |
| For that portion of Calendar Year Net Sales [***] | [***] |

The applicable royalty rate set forth in the table above will apply only to that portion of the Calendar Year Net Sales of [***] during a given Calendar Year that falls within the indicated range. By way of example, if Calendar Year Net Sales of [***] by BMS, its Affiliates and its Sublicensees were [***] for a given Calendar Year, then the royalties payable with respect to such Calendar Year Net Sales [***] for such Calendar Year, subject to adjustment and reductions as set forth in Sections 7.6.3, 7.6.4, and 7.6.5 , would be: [***].

**7.6.2 Royalty Term**. Royalties shall be paid on a Licensed Product-by-Licensed Product and country-by-country basis in the Territory from the First Commercial Sale of such Licensed Product in such country by or on behalf of BMS, its Affiliates, or Sublicensees until the latest of (a) [***] from such First Commercial Sale of such Licensed Product in such country, (b) the expiration of Regulatory Exclusivity for such Licensed Product in such country, and (c) the expiration of the last to expire Valid Claim of the MTEM Licensed Patents Covering such Licensed Product, [***], in such country (the "**Royalty Term**").

**7.6.3 Reduction for Lack of Patent Coverage and Regulatory Exclusivity**. Subject to Section 7.6.6, on a Licensed Product-by-Licensed Product and country-by-country basis, if during any [***] within the applicable Royalty Term for such Licensed Product in such country, (a) no Valid Claim of any MTEM Licensed Patent exists that Covers such Licensed Product [***] in such country, and (b ) [***] (the "**Reduction Circumstances** "), then, commencing the [***] after the Reduction Circumstances first exist and for [***] thereafter during which the Reduction Circumstances exist, the royalty rates used to calculate royalties due on Net Sales of such Licensed Product in such country for such [***] shall be reduced by [***] from the royalty rates set forth in Section 7.6.1 *provided* that, if [***], then the royalty rates used to calculate royalties due on Net Sales with respect to such Licensed Product in such country will no longer be subject to any reduction during any [***] in which [***].

**7.6.4 Royalty Reduction Due to Biosimilar Competition**. Subject to Section 7.6.6, on a Licensed Product-by-Licensed Product and country-by-country basis, if during any [***] during the Royalty Term for such Licensed Product in such country there are [***] or more Biosimilar Products being sold in such country with respect to such Licensed Product, then the royalty rates used to calculate royalties due on Net Sales of such Licensed Product in such country for such [***] shall be reduced from the royalty rates set forth in Section 7.6.1 as follows:

(a) By [***], in any [***] in which such Biosimilar Products are being sold in such country and the market penetration of such Biosimilar Products in such country in such [***] is less than [***]; or

(b) by [***] in any [***] in which such Biosimilar Products are being sold in such country and the market penetration of such Biosimilar Products in such country in such [***] is equal to or greater than [***];

where market penetration is determined by dividing (i) the aggregate number of units of all such Biosimilar Products sold in such country in such [***] by (ii) the sum of the aggregate number of units of such Licensed Product and the aggregate number of units of all such Biosimilar Products sold in such country in such [***], as reported by a well-known reporting service agreed between the Parties acting reasonably (e.g., IQVIA).

**7.6.5 Royalty Reductions Due to Required Licenses**. Subject to Section 7.6.6, on a Licensed Product-by-Licensed Product and country-by-country basis, if (a) [***], the Development, Manufacture or Commercialization of a Licensed Development Candidate or a Licensed Product containing or comprising such Licensed Development Candidate (such Licensed

Development Candidate or such Licensed Product, an "**Infringing Product**") by BMS, its Affiliates, or any Sublicensees would infringe the intellectual property rights owned or controlled by a Third Party ("**Third Party Required IP**") and in the absence of a license thereunder such Third Party Required IP would be infringed by the Development, Manufacture or Commercialization of such Infringing Product in such country (other than MTEM Platform In-Licensed IP and MTEM In-Licensed IP), and (b) BMS obtains a license to such Third Party Required IP, then BMS may deduct from the royalties otherwise owed to MTEM under this Agreement with respect to such Infringing Product in such country, [***] of [***] actually paid by BMS to such Third Party for the license under such Third Party Required IP, including [***] milestones, royalties [***] paid, in each case directly as a result of the Development, Manufacture or Commercialization of such Infringing Product; *provided*, that in no event will the royalties otherwise owed to MTEM under this Agreement with respect to such Infringing Product in such country be reduced by more than [***] in any given [***] as a result of any deduction under this Section 7.6.5; [***]. Notwithstanding anything to the contrary herein, this Section 7.6.5 does not apply if any Licensed Development Candidate or Licensed Product is an Infringing Product solely on account of any active ingredient or other component that is not a Licensed Development Candidate, if such Infringing Product is a Combination Product.

**7.6.6 Cumulative Reductions Floor**. Notwithstanding Section 7.6.3, Section 7.6.4 and Section 7.6.5, in no event will the reductions set forth in Section 7.6.3, Section 7.6.4 and Section 7.6.5 operate, individually or in combination, to reduce the amount of royalties due to MTEM with respect to Net Sales of a Licensed Product in a country in any given [***] during the Royalty Term for such Licensed Product in such country by more than [***] (i.e., in no event will MTEM receive less than [***]) of the amount of royalties that otherwise would have been due and payable to MTEM in such [***] for such Licensed Product in such country at the rates set forth in the table in Section 7.6.1.

**7.7 Royalty Payments and Reports.** BMS shall calculate all amounts payable to MTEM pursuant to Section 7.6 at the end of each [***], which amounts shall be converted to Dollars in accordance with Section 7.8. BMS shall pay to MTEM the royalty amounts due with respect to a given [***] within [***] following the end of the [***] in which the Net Sales on which such royalty amounts are due are deemed to have occurred. With each payment of royalties due to MTEM, BMS shall deliver a report to MTEM specifying: (a) the amount of Net Sales of each Licensed Product in each country in the Territory during the applicable [***]; (b) to the extent such Net Sales include sales not denoted in Dollars, a summary of the then-current exchange rate methodology used by BMS; (c) the applicable royalty rates under this Agreement (including any reduction(s) to such royalty rates under Section 7.6); (d) a calculation of the amount of royalty payment due on such Net Sales for such [***]; and (f) the date of the First Commercial Sale of each Licensed Product in each country in the Territory that has occurred during the corresponding [***] . For clarity, no royalties shall be due or payable to MTEM on any future sales of Licensed Product in a country (that occur after expiration of the applicable Royalty Term) held in inventory as of the date of expiration of the Royalty Term in that country.

**7.8 Mode of Payment.** All payments to MTEM under this Agreement shall be made by electronic funds transfer in immediately available funds to such bank account as MTEM may

from time to time designate by notice to BMS. All payments hereunder shall be made in Dollars. For the purpose of calculating any sums due under, or otherwise reimbursable pursuant to, this Agreement (including the calculation of Net Sales expressed in currencies other than Dollars), BMS shall convert any amount expressed in a foreign currency into Dollar equivalents using its, its Affiliate's, or its Sublicensee's standard conversion procedures and methodology, consistently applied in accordance with Accounting Standards.

**7.9 Taxes**.

**7.9.1 Withholding Taxes**. Where any sum due to be paid by BMS under this Agreement is subject to any withholding tax, the Parties shall use their commercially reasonable efforts to take all such actions, including executing and delivering relevant documents, as will enable them to take advantage of any applicable double taxation agreement or treaty or otherwise reduce or eliminate such withholding tax. In particular, MTEM shall provide BMS with any tax forms that may be reasonably necessary in order for BMS to not withhold tax or to withhold tax at a reduced rate under an applicable bilateral income tax treaty or otherwise, to the extent legally able to do so. If and to the extent the withholding tax cannot be fully eliminated, BMS shall remit such withholding tax to the appropriate Governmental Authority, deduct the amount paid from the amount due to MTEM, and secure and send to MTEM reasonably satisfactory evidence of the payment of such withholding tax. If any withholding taxes are refundable, creditable or otherwise recoverable, each Party will provide the other such assistance as is reasonably required to obtain a refund of the withheld taxes, obtain a credit with respect to such taxes paid, or otherwise recover such taxes.

**7.9.2 Indirect Taxes**. [***].

**7.9.3 Taxes Resulting from a Party's Action** . Notwithstanding the foregoing in this Section 7.9, if a Party takes any action of its own discretion (not required by the terms of this Agreement or a Regulatory Authority), including any assignment, sublicense, change of place of incorporation, or failure to comply with Applicable Laws or filing or record retention requirements, which results in an additional or increased withholding obligation with respect to payments to be made pursuant to this Agreement ("**Withholding Tax Action**"), then such Party shall bear the amount of such withholding to the extent associated with such Withholding Tax Action. For clarity, if BMS undertakes a Withholding Tax Action, then the sum payable by BMS (in respect of which such withholding is required to be made) shall be increased to the extent necessary to ensure that MTEM receives a sum equal to the sum which it would have received had no such Withholding Tax Action occurred.

**7.10 Records; Audits**. BMS shall, and shall cause its Affiliates and Sublicensees to, keep complete and accurate books and records pertaining to Net Sales of Licensed Products in sufficient detail to calculate all amounts payable hereunder with respect thereto and to verify compliance with its obligations under this Agreement. MTEM shall keep complete and accurate books and records pertaining to [***] (and, if applicable, [***] incurred under [***]). Such books and records shall be retained by BMS (and its Affiliates and Sublicensees) and by MTEM until [***] after the end of [***] to which such books and records

pertain. Upon reasonable [***] prior written notice by a Party (the "**Auditing Party**") to the Party required to maintain such books and records (the "**Audited Party**"), for the [***] following the end of the [***] to which each shall pertain, such books and records shall be made available for audit at reasonable times during normal business hours, in the case of BMS as the Audited Party, by an independent public accounting firm selected by MTEM, and reasonably acceptable to BMS, for inspecting and confirming the payments to be made by BMS pursuant to this ARTICLE 7 or, in the case of MTEM as the Audited Party, by an independent public accounting firm selected by BMS, and reasonably acceptable to MTEM, for inspecting and confirming the amounts due to MTEM for the conduct of the Research Plans. Such right to audit shall not be exercised more than once per [***] period. The accounting firm shall report to the Parties whether the applicable payments are correct, and if they are not correct, the amount of the applicable over- or underpayment, and no other information shall be shared with Audited Party. Any underpayments shall be paid by BMS within [***] of notification of the results of such audit. Any overpayments shall be credited against amounts payable by BMS in subsequent payment periods, or reimbursed to BMS within [***] of notification of the results of such audit should there be no subsequent payment period. The Auditing Party shall pay for the costs of such audit, except in the event such audit shows there has been an overpayment of Research Costs by BMS (in the case of BMS as the Auditing Party) or an underpayment of any amounts due hereunder by BMS (in the case of MTEM as the Auditing Party) for [***] of more than [***] of the amount paid, in which case the Audited Party shall reimburse the Auditing Party for the reasonable costs incurred by the Auditing Party in connection with such audit.

**7.11 Confidentiality**. The Party that receives reports, invoices and other information under this ARTICLE 7 shall treat all such information in accordance with the confidentiality provisions of ARTICLE 12. In addition, the Parties shall cause the accounting firm retained to conduct audits pursuant to Section 7.10 to enter into a reasonably acceptable confidentiality agreement with the Audited Party obligating such firm to retain all such financial information in confidence pursuant to such confidentiality agreement.

**7.12 Late Payment**. Any payments or portions thereof due hereunder that are not paid when due will accrue interest under this Agreement at a rate of [***] per annum or the maximum applicable legal rate, if less, calculated on the total number of days payment is delinquent.

## ARTICLE 8

## INTELLECTUAL PROPERTY

**8.1 Ownership of Intellectual Property**.

**8.1.1 United States Law**. Inventorship of Know-How, including inventions, conceived, discovered, developed, or otherwise made under this Agreement shall be determined in accordance with Applicable Law of the United States as such law exists as of the Effective Date irrespective of where such conception, discovery, development, or making occurs.

**8.1.2 MTEM Ownership**. As between the Parties, MTEM or an Affiliate of MTEM shall own and retain all right, title, and interest in and to all MTEM Licensed Patents (excluding Joint Collaboration Patents) and MTEM Licensed Know-How (excluding Joint Collaboration Know-How).

**8.1.3 BMS Ownership**. As between the Parties, BMS or an Affiliate of BMS designated by BMS shall own and retain all right, title, and interest in and to any and all BMS Patents (excluding Joint Collaboration Patents) and BMS Know-How (excluding Joint Collaboration Know-How).

**8.1.4 Joint Ownership**. As between the Parties, each Party shall own an equal, undivided interest in and to any and all Joint Collaboration Patents and Joint Collaboration Know-How. At each IPC meeting, each Party shall disclose to the other Party in writing the making or conception of any Joint Collaboration Know-How. Subject to the terms of ARTICLE 5, each Party shall have the right to Exploit (including by way of granting licenses or otherwise) the Joint Collaboration Patents and Joint Collaboration Know-How without a duty of seeking consent or accounting to the other Party.

**8.2 Prosecution and Maintenance of Patents**.

**8.2.1 Certain MTEM Patents and ETB Platform Patents**. MTEM shall have the sole right, but not the obligation, through the use of internal or outside counsel of its choice, to prepare, file, prosecute, and maintain the MTEM Background Patents and, subject to Section 8.2.2, MTEM Collaboration Patents (including [***]), worldwide, at MTEM's sole cost and expense. [***].

**8.2.2 Product-Specific Patents and Joint Collaboration Patents**. Subject to Section 8.2.5, MTEM shall have the first right, through the use of internal or outside counsel selected in consultation with BMS, to prepare, file, prosecute, and maintain MTEM Collaboration Patents that are Product-Specific Patents and Joint Collaboration Patents [***], worldwide, at MTEM's sole cost and expense. MTEM shall (a) [***] with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, have the obligation to prepare, file, prosecute, and maintain Product-Specific Patents arising from the Research Program applicable to such Collaboration Target, and (b) prepare, file, prosecute, and maintain the Joint Collaboration Patents that are not Product-Specific Patents in a manner consistent with MTEM's standard practices with respect to its other Patents. MTEM shall keep BMS reasonably informed, through the IPC, of all material developments with regard to its preparation, filing, prosecution, and maintenance of Product-Specific Patents and Joint Collaboration Patents, including by providing BMS' IPC representatives with a copy of all communications to and from any patent authority in the Territory regarding such Product-Specific Patents and Joint Collaboration Patents, and by providing BMS' IPC representatives drafts of any material filings or responses to be made to such patent authorities in the Territory sufficiently in advance of submitting such filings or responses so as to allow for a reasonable opportunity for BMS to review and comment thereon. MTEM shall consider in good faith the requests and suggestions of BMS' IPC representatives with respect to such drafts. If at any time MTEM determines to cease its prosecution or maintenance of any

Product-Specific Patent or Joint Collaboration Patent, subject to the rights of any Third Party collaborator or licensee of MTEM, if applicable, (i) MTEM shall provide BMS written notice, through the IPC, at least [***] in advance of such cessation (or any filing deadlines for the applicable Patents, if earlier), (ii) no later than [***] after receipt of such notice from MTEM, BMS may provide MTEM written notice, through the IPC, of its desire to assume control of such prosecution or maintenance, at BMS' sole cost and expense, and (iii) [***] following MTEM's receipt of such notice from BMS, MTEM shall transfer such prosecution and maintenance to BMS; *provided* that MTEM shall not be required to transfer such prosecution and maintenance if MTEM has a strategic or other commercially reasonable reason to discontinue such prosecution and maintenance.

**8.2.3 Certain BMS Patents**. BMS shall have the sole right to prepare, file, prosecute, and maintain the BMS Background Patents and, subject to Section 8.2.4, BMS Collaboration Patents [***], worldwide, at BMS ' sole cost and expense.

**8.2.4 Product-Platform Patents and** [***]. BMS shall have the first right, but not the obligation, through the use of internal or outside counsel selected in consultation with MTEM, to prepare, file, prosecute, and maintain BMS Collaboration Patents that are Product-Platform Patents [***], worldwide, at BMS' sole cost and expense. BMS shall prepare, file, prosecute, and maintain such Product-Platform Patents [***] in a manner consistent with BMS' standard practices with respect to its other Patents. BMS shall keep MTEM reasonably informed, through the IPC, of all material steps with regard to the preparation, filing, prosecution, and maintenance of such Product-Platform Patents [***], including by providing MTEM's IPC representatives with a copy of all communications to and from any patent authority in the Territory regarding such Patents, and by providing MTEM's IPC representatives drafts of any material filings or responses to be made to such patent authorities in the Territory sufficiently in advance of submitting such filings or responses so as to allow for a reasonable opportunity for MTEM to review and comment thereon. BMS shall consider in good faith the requests and suggestions of MTEM's IPC representatives with respect to such drafts. If BMS determines at any time to cease prosecution or maintenance of any Product-Platform Patent [***], (i) BMS shall provide MTEM written notice, through the IPC, at least [***] in advance of such cessation (or any filing deadlines for the applicable Patents, if earlier), (ii) no later than [***] after receipt of such notice from BMS, MTEM may provide BMS written notice, through the IPC, of its desire to assume control of such prosecution or maintenance, at MTEM's sole cost and expense, and (iii) [***] following BMS' receipt of such notice from MTEM, BMS shall transfer such prosecution and maintenance to MTEM; *provided* that BMS shall not be required to transfer such prosecution and maintenance if BMS has a strategic or other commercially reasonable reason to discontinue such prosecution and maintenance.

**8.2.5 Product-Specific Patents After Option Exercise**. Following the License Effective Date with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, BMS shall have the first right, but not the obligation, through the use of internal or outside counsel selected in consultation with MTEM, to prepare, file, prosecute, and maintain the Product-Specific Patents arising from the Research Program applicable to such Collaboration Target (the "**Optioned Product-Specific Patents**") worldwide, at BMS' sole cost

and expense. Upon BMS' request following such License Effective Date, MTEM shall transfer to BMS' patent counsel the prosecution files and materials for the Optioned Product-Specific Patents arising from such Research Program. BMS shall keep MTEM reasonably informed, through the IPC, of all material steps with regard to the preparation, filing, prosecution, and maintenance of the Optioned Product-Specific Patents, including by providing MTEM with a copy of all communications to and from any patent authority in the Territory regarding such Optioned Product-Specific Patents, and by providing MTEM's IPC representatives drafts of any material filings or responses to be made to such patent authorities in the Territory sufficiently in advance of submitting such filings or responses so as to allow for a reasonable opportunity for MTEM's IPC representatives to review and comment thereon. BMS shall consider in good faith the requests and suggestions of MTEM's IPC representatives with respect to such drafts. If BMS determines at any time to cease prosecution or maintenance of any Optioned Product-Specific Patent, (a) BMS shall provide MTEM written notice, through the IPC, at least [***] in advance of such cessation (or any filing deadlines for the applicable Patents, if earlier), (b) no later than [***] after receipt of such notice from BMS, MTEM may provide BMS written notice, through the IPC, of its desire to assume control of such prosecution or maintenance, at MTEM's sole cost and expense, and (c) [***] following BMS' receipt of such notice from MTEM, BMS shall transfer such prosecution and maintenance to MTEM; *provided* that BMS shall not be required to transfer such prosecution and maintenance if BMS has a strategic or other commercially reasonable reason to discontinue such prosecution and maintenance.

**8.2.6 BMS Binder Know-How and BMS Binder Patents**. With respect to BMS Binder Know-How, [***].

**8.2.7 Coordination**. The Parties shall coordinate in good faith through the IPC to segregate (a) claims within MTEM Collaboration Patents (excluding Optioned Product-Specific Patents) or Joint Collaboration Patents and (b) claims within BMS Collaboration Patents (including any Product-Platform Patent [***]) or Optioned Product-Specific Patents into separate Patents (which may be related, e.g., as continuations or divisionals of one another). Such coordination shall include collaboration in the form of sharing pre-filing disclosure and planned filing dates, at least [***] in advance of filing, to ensure MTEM can file on a genus that has applicability to the ETB Platform beyond a particular Collaboration Target (or all Collaboration Targets if there are more than one at such time), or to ensure BMS can file, or request MTEM to file (prior to exercising its Option), on a species that claims subject matter that directly and specifically relates to (i) a Collaboration Target with respect to which BMS has exercised its Option or has an Option, (ii) a Licensed Development Candidate directed to a Collaboration Target, or (iii) [***]. In addition, each Party shall promptly notify the other Party of the date the applicable patent filing was made. Without limiting the foregoing, if any proposed filing by BMS with respect to any BMS Collaboration Patent (including any Product-Platform Patent [***]) or Optioned Product-Specific Patent discloses a species included within a genus disclosed or claimed by any Patent as to which MTEM has the right to prosecute under this Section 8.2 [***], or if any proposed filing by MTEM with respect to any MTEM Collaboration Patent (excluding any Optioned Product-Specific Patent), [***], or Joint Collaboration Patents discloses a genus including a species disclosed or claimed by any Patent as to which BMS has the right to prosecute under this Section 8.2 ([***]), then the Parties shall coordinate in good faith through the IPC the

filings with respect to such species or genus Patents so that such filings by one Party are made no earlier than the same day that filings are made by the other Party with respect to the corresponding genus or species Patents. Without limiting the foregoing, the Parties shall use good faith and reasonable efforts to avoid creating potential issues in the prosecution of patent applications covered by this Section 8.2.

**8.3 Enforcement of Patents**.

**8.3.1 Notice**. Each Party shall promptly notify the other Party in writing of any alleged or threatened infringement of the MTEM Licensed Patents, BMS Patents, or Joint Collaboration Patents in any jurisdiction in the Territory of which such Party becomes aware by reason of the making, using, offering to sell, selling or importing of any Licensed Product or any product Directed to a Collaboration Target that competes with a Licensed Product ("**Competitive Infringement**").

**8.3.2 MTEM Patents**. Except as set forth in Section 8.3.4, MTEM shall have the sole right, but not the obligation, to enforce and defend the MTEM Background Patents and MTEM Collaboration Patents ([***]) against any Competitive Infringement worldwide, under its control and at its own expense.

**8.3.3 BMS Patents**. Except as set forth in Section 8.3.4, BMS shall have the sole right, but not the obligation, to enforce and defend the BMS Background Patents, [***], and BMS Collaboration Patents [***] against any Competitive Infringement worldwide, under its control and at its own expense.

**8.3.4 Optioned Product-Specific Patents; Certain BMS Patents**. Following the License Effective Date with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, BMS shall have the first right, but not the obligation, to enforce and defend the Optioned Product-Specific Patents arising from the Research Program applicable to such Collaboration Target against any Competitive Infringement worldwide, under its control and at its own expense. In addition, BMS shall have the first right, but not the obligation, to enforce and defend Product-Platform Patents [***] against any Competitive Infringement worldwide, under its control and at its own expense. If BMS does not take commercially reasonable steps to enforce or defend such Optioned Product-Specific Patents, Product-Platform Patents [***] against any such Competitive Infringement (a) within [***] following the first notice provided to it pursuant to Section 8.3.1, or (b) if earlier, [***] before the time limit, if any, set forth in Applicable Law for filing of such actions, then MTEM may enforce or defend the applicable Patents against such Competitive Infringement at its own expense; *provided* that, if BMS notifies MTEM during such [***] or [***] period that it is electing in good faith not to take steps to enforce the applicable Patents against such Competitive Infringement for strategic reasons or other commercially reasonable reasons, including to maintain the commercial value of the relevant Patents or any Licensed Product Covered thereby, MTEM will not have the right to take any action to enforce such Optioned Product-Specific Patents, Product-Platform Patents [***] (as applicable) against such Competitive Infringement.

**8.3.5 Joint Collaboration Patents**. During the Term, MTEM shall have the first right, but not the obligation, to enforce and defend the Joint Collaboration Patents that are not Optioned Product-Specific Patents [***] against any Competitive Infringement worldwide, under its control and at its own expense. If MTEM does not take commercially reasonable steps to enforce or defend such Joint Collaboration Patents against any such Competitive Infringement (a) within [***] following the first notice provided to it pursuant to Section 8.3.1, or (b) if earlier, [***] before the time limit, if any, set forth in Applicable Law for filing of such actions, then, subject to the rights of any Third Party collaborator or licensee of MTEM, if applicable, BMS may enforce or defend such Joint Collaboration Patent(s) against such Competitive Infringement at its own expense; *provided* that, if MTEM notifies BMS during such [***] or [***] period that it is electing in good faith not to take steps to enforce such Joint Collaboration Patents against such Competitive Infringement for strategic reasons or other commercially reasonable reasons, including to maintain the commercial value of the relevant Joint Collaboration Patents or other MTEM Licensed Patents or any Licensed Product Covered thereby, BMS will not have the right to take any action to enforce such Joint Collaboration Patents against such Competitive Infringement.

**8.3.6 Cooperation**. In advance of taking any action to enforce Patents against any Competitive Infringement pursuant to Section 8.3.4 or Section 8.3.5, the Party entitled to bring such action in accordance with such Sections shall discuss the proposed enforcement action at the IPC and shall reasonably consider comments from the other Party's IPC representatives. Where a Party brings an action against any Competitive Infringement pursuant to this Section 8.3, the other Party shall, where necessary, furnish a power of attorney solely for such purpose or shall join in, or be named as a party to, such action. The Party entitled to bring any Competitive Infringement action in accordance with this Section 8.3 shall have the right to settle such action; *provided* that no Party shall have the right to settle any Competitive Infringement action under this Section 8.3 in a manner that (a) would restrict the scope or admit the invalidity or unenforceability of a Patent Controlled by the other Party, (b) diminishes or has a material adverse effect on the rights or interest of the other Party, or (c) imposes any costs or liability on, or involves any admission by, the other Party, in each case ((a) – (c)) without the express written consent of such other Party. The Party commencing the Competitive Infringement action shall provide the other Party's IPC representatives with copies of all pleadings and other documents filed with the court and shall consider reasonable input from the other Party during the course of the proceedings.

**8.3.7 Recovery**. Except as otherwise agreed by the Parties in connection with a cost sharing arrangement, any recovery realized as a result of a Competitive Infringement action (whether by way of settlement or otherwise) shall be first allocated to reimburse the Parties for their costs and expenses incurred in connection with such action (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses). Any remainder after such reimbursement shall be retained by the Party that has exercised its right to bring the Competitive Infringement action; *provided* that if BMS is such Party, then such remainder [***], shall be deemed "Net Sales" in the Calendar Year in which the money is actually received, and BMS shall pay to MTEM the corresponding royalty on such remainder in accordance with Section 7.6.

**8.3.8 Other Infringement**.

(a) With respect to any alleged or threatened infringement of a Joint Collaboration Patent ([***]) that is not a Competitive Infringement, neither Party shall enforce such Joint Collaboration Patent unless mutually agreed by the Parties (through the IPC or otherwise); *provided* that, subject to the rights of any Third Party collaborator or licensee of MTEM, if applicable, the Parties will cooperate in good faith to bring suit together against the infringing party unless the Parties mutually agree to permit one Party to solely bring suit. Any recovery realized as a result of a suit brought to enforce a Joint Collaboration Patent pursuant to this Section 8.3.8(a) will be first allocated to reimburse the Parties for their costs and expenses incurred in connection with such suit (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses), and any remainder after such reimbursement shall be allocated as follows: (i) if the Parties jointly initiate a suit to enforce a Joint Collaboration Patent pursuant to this Section 8.3.8(a) , each Party will be allocated [***] percent [***] of such remainder; and (ii ) if only one Party initiates such suit pursuant to this Section 8.3.8(a), such Party will retain such remainder; *provided* that if BMS is such Party, then such remainder shall be deemed "Net Sales" in the Calendar Year in which the money is actually received, and BMS shall pay to MTEM the corresponding royalty on such remainder in accordance with Section 7.6.

(b) MTEM will retain all rights to pursue an infringement of any Patent solely owned by MTEM that is not a Competitive Infringement and MTEM will retain all recoveries with respect thereto.

(c) BMS will retain all rights to pursue an infringement of any Patent solely owned by BMS that is not a Competitive Infringement, and BMS will retain all recoveries with respect thereto. [***].

**8.4 Infringement Claims by Third Parties**. If the Manufacture, sale, or use of a Licensed Product in the Territory pursuant to this Agreement gives rise to any claim, suit, or proceeding by a Third Party alleging patent infringement by BMS (or its Affiliates or Sublicensees), BMS shall have the first right, but not the obligation, to defend and control the defense of any such claim, suit, or proceeding at its own expense, using counsel of its own choice; *provided* that the provisions of Section 8.3 shall govern rights to assert a counterclaim of Competitive Infringement of any Joint Collaboration Patent or MTEM Licensed Patent.

**8.5 Invalidity or Unenforceability Defenses or Actions**.

**8.5.1 Notice**. Each Party shall promptly notify the other Party in writing of any alleged or threatened assertion of invalidity or unenforceability of any of the MTEM Background Patents, MTEM Collaboration Patents, BMS Collaboration Patents, or Joint Collaboration Patents by a Third Party, in each case of which such Party becomes aware.

**8.5.2 Optioned Product-Specific Patents.** Following the License Effective Date with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, BMS shall have the sole right, but not the obligation, to defend and control the defense of the

validity and/or enforceability of the Optioned Product-Specific Patents, including any inter partes review, post-grant review, and any other post-grant proceedings, including reexamination, reissue, opposition, revocation and other similar proceedings, for the Optioned Product-Specific Patents. BMS shall consult with MTEM to determine a course of action with respect to any defense of the validity and/or enforceability of any Optioned Product-Specific Patent and BMS shall consider in good faith all reasonable comments, requests, and suggestions provided by MTEM with respect thereto.

**8.5.3 MTEM Sole Patents**. Subject to Section 8.5.2, MTEM shall have the sole right, but not the obligation, to defend and control the defense of the validity and/or enforceability of the MTEM Background Patents and MTEM Collaboration Patents [***], including any inter partes review, post-grant review, and any other post-grant proceedings, including reexamination, reissue, opposition, revocation and other similar proceedings, for such Patents. Prior to the License Effective Date with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, MTEM shall consult with BMS to determine a course of action with respect to any defense of the validity and/or enforceability of any MTEM Collaboration Patent that is likely to become a Product-Specific Patent if BMS exercises its Option and MTEM shall consider in good faith all reasonable comments, requests, and suggestions provided by BMS with respect thereto. For clarity, following the License Effective Date with respect to Licensed Development Candidate(s) Directed to a given Collaboration Target, the foregoing shall not apply, and the terms of Section 8.5.2 shall apply, with respect to the applicable Product-Specific Patents.

**8.5.4 BMS Sole Patents**. BMS shall have the sole right, but not the obligation, to defend and control the defense of the validity and/or enforceability of the BMS Collaboration Patents [***], including any inter partes review, post-grant review, and any other post-grant proceedings, including reexamination, reissue, opposition, revocation and other similar proceedings, for BMS Collaboration Patents. BMS shall consult with MTEM to determine a course of action with respect to any defense of the validity and/or enforceability of any Product-Platform Patent [***], and in each case BMS shall consider in good faith all reasonable comments, requests, and suggestions provided by MTEM with respect thereto.

**8.5.5 Joint Collaboration Patents**. Subject to Section 8.5.2, MTEM shall have the first right, but not the obligation, to defend and control the defense of the validity and/or enforceability of the Joint Collaboration Patents [***], including any inter partes review, post-grant review, and any other post-grant proceedings, including reexamination, reissue, opposition, revocation and other similar proceedings, for Joint Collaboration Patents. BMS may participate in any such defense in the Territory related to any such Joint Collaboration Patent that Covers a Licensed Product with counsel of its choice at its own expense; *provided* that MTEM shall retain control of such defense. If MTEM elects not to defend and control the defense of the validity and/or enforceability of a Joint Collaboration Patent that Covers a Licensed Product in the Territory, then, subject to the rights of any Third Party collaborator or licensee of MTEM, if applicable, BMS may defend and control such defense at its own expense; *provided*, that BMS shall obtain MTEM's written consent prior to settling or compromising such defense**,** such consent not to be unreasonably withheld, conditioned, or delayed.

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

**8.5.6 Cooperation**. Each Party shall assist and cooperate with the other Party as such other Party may reasonably request from time to time in connection with its activities set forth in this Section 8.5, including by being joined as a party plaintiff in such action or proceeding, providing access to relevant documents and other evidence, and making its employees available at reasonable business hours. In connection with any defense pursuant to Section 8.5.5, the controlling Party shall, through the IPC, (a) consult with the other Party as to the strategy for such defense, (b) keep the other Party reasonably informed of material steps taken in the course of such defense, and (c) provide copies of all documents filed in connection with such defense.

**8.5.7 Enforcement Action**. Notwithstanding the foregoing in this Section 8.5 , in the case of any invalidity or unenforceability claims arising in an enforcement action under Section 8.3, the Party controlling the enforcement action pursuant to Section 8.3 shall control the response to such invalidity or unenforceability claims, *provided* such Party may not admit invalidity or unenforceability of any Patent Controlled by the other Party without the express written consent of the other Party.

**8.6 Future Use of MTEM In-Licensed IP**.

**8.6.1** If (a) MTEM intends to use for any Research Program any Third Party Know-How or Patents in-licensed or otherwise acquired by MTEM [***] or, (b) MTEM acquires or intends to acquire [***] rights in any Third Party Know-How or Patents that, in either case, ((a) or (b)), relates to the Exploitation of the ETB Platform ("**MTEM Platform In-Licensed IP**"), MTEM shall be [***] responsible to bear all Third Party license payments, milestones, royalties, damages and other payments owed with respect to the Collaboration Targets, Development Candidates and Licensed Products in consideration for such MTEM Platform In-Licensed IP.

**8.6.2** If (a) MTEM intends to use for any Research Program any Third Party Know-How or Patents in-licensed or otherwise acquired by MTEM [***] or, (b) MTEM acquires or intends to acquire [***] rights in any Third Party Know-How or Patents that, in either case, ((a) or (b)) specifically relate(s) to a Collaboration Target and is or are necessary or reasonably useful for a Research Program or Exploitation of a Licensed Development Candidate or Licensed Product ("**MTEM In-Licensed IP**"), then, subject to confidentiality obligations to such Third Party, MTEM shall provide BMS a summary of the terms and conditions of the agreement under which such MTEM In-Licensed IP was or will be acquired ("**Third Party IP Agreement**") that are relevant for BMS to evaluate and elect, in its sole discretion, whether or not to include such MTEM In-Licensed IP within the MTEM Licensed Know-How or MTEM Licensed Patents, as applicable. If BMS so elects to include such MTEM In-Licensed IP as MTEM Licensed Know-How or MTEM Licensed Patents, as applicable, then BMS shall be responsible for all payments that become due under such Third Party IP Agreement with respect to the Development, Manufacture, Commercialization or other Exploitation of Licensed Development Candidates or Licensed Products under this Agreement (which payments BMS shall reimburse to MTEM or shall pay directly to the applicable Third Party, if such Third Party IP Agreement is assigned to BMS). If BMS does not elect to include such MTEM In-Licensed IP, then MTEM shall not use such MTEM In-Licensed IP in the course of performing any Research Program, such MTEM In-Licensed IP shall not be included in or deemed to be MTEM Licensed Know-How or MTEM Licensed Patents,

and BMS shall have no right or license under any rights granted under such Third Party IP Agreement. With respect to each Third Party IP Agreement that covers MTEM In-Licensed IP that BMS elects to include as MTEM Licensed Know-How or MTEM Licensed Patents hereunder and that is assignable, if MTEM provides an assignment notice to BMS at any time [***], and [***]. For clarity, the terms of this Section 8.6 do not apply to any Third Party Know-How or Third Party Patent acquired by MTEM that MTEM does not propose or intend to use in a Research Program or that does not specifically relate to a Research Program or a Licensed Development Candidate or Licensed Product (e.g., an in-licensed Third Party Patent covering ETB Platform technology that will not be used in a Research Program or that does not specifically relate to an ETB Directed to a Collaboration Target Developed under a Research Program), and MTEM shall be responsible for payments related to any such Third Party Know-How or Third Party Patent.

**8.7 Common Ownership Under Joint Research Agreements** . The Parties acknowledge and agree that this Agreement is a "joint research agreement" as defined in 35 U.S.C. §100(h). Notwithstanding anything to the contrary in this ARTICLE 8 , neither Party will have the right to provide to a court or an agency a statement under 37 C.F.R. §1.104(c)(4)(ii)(A) to disqualify, for purposes of 35 U.S.C. §§ 102(b)(2)(C) and 102(c), prior art under §102(a)(2) by the other Party without the prior written consent of the other Party, which will not be unreasonably withheld, conditioned or delayed. With respect to any such permitted statement, the Parties shall coordinate their activities with respect to any submissions, filings or other activities in support thereof. Notwithstanding the foregoing, the other Party's consent under this Section 8.7 shall not be required to permit a Party to file with a court or agency a terminal disclaimer under 37 C.F.R. §1.321(d) to overcome any obviousness-type double patenting in any patent application claiming a Development Candidate, Licensed Product or one or more uses thereof, provided that the Party filing such terminal disclaimer shall give reasonable advance notice to the other Party of such filing.

**8.8 Recording**. Each Party shall, if requested to do so by the other, promptly enter into confirmatory license agreements in the form or substantially the form reasonably requested by the requesting Party for purposes of recording the licenses granted under this Agreement with such patent offices in the Territory as the requesting Party reasonably considers appropriate.

## ARTICLE 9

## REPRESENTATIONS AND WARRANTIES

**9.1 Mutual Representations and Warranties**. Each Party hereby represents and warrants to the other, as of the Effective Date, as follows:

**9.1.1 Organization**. It is a company duly organized, validly existing, and in good standing under the laws of the jurisdiction of its organization, and has all requisite power and authority, corporate or otherwise, to execute, deliver, and perform this Agreement.

**9.1.2 Authorization**. The execution and delivery of this Agreement and the performance by such Party of the transactions contemplated hereby have been duly authorized by all necessary corporate action.

**9.1.3 Binding Agreement**. This Agreement is a legal, valid, and binding obligation of such Party enforceable against it in accordance with its terms, subject to the effects of bankruptcy, insolvency, or other laws of general application affecting the enforcement of creditor rights, judicial principles affecting the availability of specific performance, and general principles of equity (whether enforceability is considered a proceeding at law or equity).

**9.1.4 No Inconsistent Obligation**. It is not under any obligation, contractual or otherwise, to any Person that conflicts with or is inconsistent with the terms of this Agreement, or that would impede the fulfilment of its obligations hereunder, and the performance of the transactions contemplated hereunder does not violate (a) such Party's charter documents, bylaws, or other organizational documents, (b) any agreement, instrument, or contractual obligation to which such Party is bound, (c) any requirement of any Applicable Law, or (d) any order, writ, judgment, injunction, decree, determination, or award of any Governmental Authority currently in effect applicable to such Party .

**9.2 Additional Representations and Warranties by MTEM**. Except as disclosed by MTEM on or prior to the Effective Date, MTEM hereby represents and warrants, as of the Effective Date, as follows:

**9.2.1** [***];

**9.2.2** Schedule 1.58 sets forth a true, correct and complete list of all Patents Controlled by MTEM as of the Effective Date that, to MTEM's Knowledge, are necessary to Develop, Manufacture and Commercialize ETBs Directed to the Initial Target as such activities are contemplated by this Agreement as of the Effective Date (such Patents, the "**Existing Background Patents**");

**9.2.3** MTEM is the sole and exclusive owner of all Existing Background Patents , free and clear of any liens, charges and encumbrances (other than rights granted to Third Parties as of the Effective Date, such as security liens, that would not adversely affect the options, rights and licenses (or sublicenses, as the case may be) granted to BMS hereunder), and, as of the Effective Date, to MTEM 's Knowledge, neither any license granted by MTEM or its Affiliates to any Third Party, nor any license granted by any Third Party to MTEM or its Affiliates conflicts with the options, rights and licenses (or sublicenses, as the case may be) granted to BMS hereunder as of the Effective Date and it has the right to grant the options, rights and licenses (or sublicenses, as the case may be) under the Existing Background Patents that it purports to grant to BMS under this Agreement;

**9.2.4** all issued Patents within the Existing Background Patents are in full force and effect and, to MTEM's Knowledge, all Existing Background Patents have been prosecuted and maintained from the respective patent offices in accordance with Applicable Law;

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

**9.2.5** MTEM has not received any written claims that any issued Existing Background Patent is invalid or unenforceable;

**9.2.6** MTEM has not received written notice from any Third Party nor is there any legal, governmental or administrative proceeding pending or, to MTEM's Knowledge, threatened against MTEM alleging that the use of the Existing Background Patents or MTEM Background Know-How as permitted to be used under this Agreement infringes any intellectual property of any Third Party. To MTEM's Knowledge, the practice of the Existing Background Patents or MTEM Background Know-How as contemplated under this Agreement with respect to the Initial Target does not (a) infringe any claims of any Patents of any Third Party or (b) misappropriate any Know-How of any Third Party;

**9.2.7** with respect to the Existing Background Patents, MTEM has obtained assignments from the inventors of all inventorship rights relating to such Patents, and all such assignments of inventorship rights relating to such Patents filed in the United States have been properly executed and recorded in the relevant United States patent offices;

**9.2.8** no Existing Background Patent is subject to any funding agreement with any government or governmental agency;

**9.2.9** there are no judgments or settlements against MTEM or any of its Affiliates, or any pending or, to MTEM's Knowledge, threatened claims or litigation, in each case in connection with the Existing Background Patents or relating to the transactions contemplated by this Agreement;

**9.2.10** No funding, facilities, or personnel of any governmental authority or any non-profit educational or research institutions were used to develop or create any Existing Background Patent and MTEM Background Know-How that would result in rights to the Licensed Development Candidates or Licensed Products residing in the U.S. Government, the National Institutes of Health, the National Institute for Drug Abuse, or other governmental agency or any non-profit institution, and the licenses granted hereunder are not subject to overriding obligations to the U.S. Government as set forth in Public Law 96-517 (35 U.S.C. §§ 200-204), or any similar obligations under the laws of any other country in the Territory.

**9.2.11** [***].

**9.3 Mutual Covenants**. Each Party hereby covenants and agrees, in connection with the performance of its activities under this Agreement:

**9.3.1** it shall not employ, contract with, or retain any Person directly or indirectly to perform any of the activities under this Agreement if such Person is (a) under investigation by the FDA for debarment or is debarred by the FDA pursuant to the Generic Drug Enforcement Act of 1992, as amended (21 U.S.C. § 301, *et seq.*), (b) is the subject of a conviction described in Section 306 of the FD&C Act, or (c) is subject to any such similar sanction;

**9.3.2** it will inform the other Party in writing promptly if it or any Person engaged by it or any of its Affiliates who is performing services under this Agreement or any ancillary agreements is debarred or is the subject of a conviction described in Section 306 of the FD&C Act, or if any action, suit, claim, investigation or legal or administrative proceeding is pending or, to its K nowledge, is threatened, relating to the debarment or conviction of such Party, any of its Affiliates or any such Person performing services hereunder or thereunder; and

**9.3.3** in the performance of its obligations under this Agreement, such Party shall comply and shall cause its and its Affiliates' employees and contractors to comply with all Applicable Laws and, without limiting the foregoing, it shall not perform any actions that are prohibited by local or other anti-corruption laws (collectively, "**Anti-Corruption Laws**") that may be applicable to such Party. Without limiting the foregoing, neither Party shall make any payments, or offer or transfer anything of value, to any government official or government employee, to any political party official or candidate for political office or to any other Third Party related to this Agreement and the activities hereunder in a manner that would violate Anti-Corruption Laws.

**9.4 DISCLAIMER** . EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED (AND EACH PARTY HEREBY EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES NOT EXPRESSLY PROVIDED IN THIS AGREEMENT), INCLUDING WITH RESPECT TO ANY PATENTS OR KNOW-HOW, INCLUDING WARRANTIES OF VALIDITY OR ENFORCEABILITY OF ANY PATENTS, TITLE, QUALITY, COMPLETENESS, ACCURACY, MERCHANTABILITY, FITNESS FOR A PARTICULAR USE OR PURPOSE, PERFORMANCE AND NONINFRINGEMENT OF ANY THIRD PARTY PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS. WITHOUT LIMITING THE FOREGOING, NEITHER PARTY MAKES ANY REPRESENTATION, WARRANTY OR GUARANTEE THAT ANY RESEARCH PROGRAM WILL BE SUCCESSFUL, OR THAT ANY PARTICULAR RESULTS WILL BE ACHIEVED WITH RESPECT TO ANY RESEARCH PROGRAM OR ANY DEVELOPMENT CANDIDATE OR LICENSED PRODUCT HEREUNDER.

## ARTICLE 10

## INDEMNIFICATION; INSURANCE; LIMITATIONS

**10.1 Indemnification**.

**10.1.1 Indemnification by BMS**. BMS shall indemnify, defend, and hold harmless MTEM, its Affiliates, and its and their respective directors, officers, employees and agents, and their respective successors, heirs and assigns ("**MTEM Indemnitees**") from and against any and all losses, damages, liabilities, costs, and expenses (including reasonable attorneys' fees and expenses) (collectively, "**Losses**") that any MTEM Indemnitees may incur or otherwise be required to pay to one or more Third Parties in connection with any Third Party suits,

investigations, claims, or demands (collectively, "**Claims**") to the extent resulting from or arising out of: (a) the Development, Manufacture, Commercialization or other Exploitation of any Licensed Development Candidate or Licensed Product by, or on behalf of, or under authority of BMS or any of its Affiliates, Sublicensees, subcontractors, agents, or consultants; (b) the material breach by BMS of any warranty, representation, covenant, or agreement made by BMS in this Agreement; or (c) the gross negligence or willful misconduct of BMS or any of its Affiliates, Sublicensees, subcontractors, agents, or consultants, *except* in each case, ((a), (b) or (c)), for those Losses for which MTEM has an obligation to indemnify BMS pursuant to Section 10.1.2.

**10.1.2 Indemnification by MTEM**. MTEM shall indemnify, defend, and hold harmless BMS, its Affiliates, and its and their respective directors, officers, employees and agents, and their respective successors, heirs and assigns (collectively, the "**BMS Indemnitees**") from and against any and all Losses that any BMS Indemnitees may incur or otherwise be required to pay to one or more Third Parties in connection with any Claims to the extent resulting from or arising out of: (a) the Exploitation by MTEM of the ETB Platform by, or on behalf of, or under authority of MTEM or any of its Affiliates, Sublicensees, subcontractors, agents, or consultants; (b) the material breach by MTEM of any warranty, representation, covenant, or agreement made by MTEM in this Agreement; or (c) the gross negligence or willful misconduct of MTEM or any of its Affiliates, subcontractors, agents, or consultants, *except* in each case, ((a), (b) or (c)), for those Losses for which BMS has an obligation to indemnify MTEM pursuant to Section 10.1.1.

**10.1.3 Procedure**. If any Claim (including any governmental investigation) is brought against a Party with respect to which such Party may seek indemnity pursuant to Section 10.1.1 or Section 10.1.2, as applicable, such Party (the "**Indemnified Party**") will give prompt written notice of the Claim to the other Party (the "**Indemnifying Party** ") and provide the Indemnifying Party with a copy of any complaint, summons or other written notice that the Indemnified Party receives in connection with such Claim. An Indemnified Party's failure to deliver such written notice will relieve the Indemnifying Party of liability to the Indemnified Party under Section 10.1.1 or Section 10.1.2, as applicable, only to the extent such failure is prejudicial to the Indemnifying Party's ability to defend such Claim. Provided that the Indemnifying Party is not contesting the indemnity obligation, the Indemnified Party will permit the Indemnifying Party to control the defense of such Claim and the disposition of such Claim by negotiated settlement or otherwise (subject to this Section 10.1), and any failure by the Indemnifying Party to contest such obligation prior to assuming control will be deemed to be an admission of the obligation to indemnify. The Indemnifying Party will act reasonably and in good faith with respect to all matters relating to such Claim and will not settle or otherwise resolve such Claim without the Indemnified Party's prior written consent, which will not be unreasonably withheld, conditioned or delayed; *provided* that such consent will not be required with respect to any settlement that involves only the payment of monetary awards for which the Indemnifying Party will be fully responsible and that includes a complete and unconditional release of the Indemnified Party from all liability with respect thereto. The Indemnified Party will reasonably cooperate with the Indemnifying Party in the Indemnifying Party's defense of any Claim for which indemnity is sought under this Agreement, at the Indemnifying Party's cost and expense.

**10.2 Insurance**. Each Party shall maintain, at its own expense, commercial general liability insurance, product liability insurance and other appropriate insurance in an amount consistent with sound business practice and reasonable in light of its obligations under this Agreement. Each Party shall maintain such insurance for the period commencing promptly after the Effective Date until [***] after the Term. Each Party shall provide to the other Party a certificate of insurance evidencing such coverage upon request. It is understood that such insurance shall not be construed to create any limit of either Party's obligations or liabilities with respect to its indemnification obligations under this Agreement.

**10.3 Limitation of Consequential Damages**. EXCEPT FOR DAMAGES PAYABLE FOR A PARTY'S BREACH OF ITS OBLIGATIONS UNDER ARTICLE 12 OR FOR A PARTY'S WILLFUL MISCONDUCT OR REQUIRED TO BE PAID TO A THIRD PARTY AS PART OF A CLAIM FOR WHICH A PARTY PROVIDES INDEMNIFICATION UNDER THIS ARTICLE 10, NEITHER PARTY NOR ANY OF ITS AFFILIATES SHALL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR ANY LOSS OF PROFITS OR BUSINESS INTERRUPTION OR ANY INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR CONSEQUENTIAL DAMAGES, ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, BREACH OF STATUTORY DUTY, OR OTHERWISE, IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. The foregoing limitation of liability shall not operate to limit or exclude either Party's liability for (a) death or personal injury, (b) fraud, or (c) any other liability which, pursuant to Applicable Law, may not be limited or excluded.

## ARTICLE 11

## TERM; TERMINATION

**11.1 Term** . This Agreement shall commence on the Effective Date and, unless earlier terminated as provided in this ARTICLE 11 , shall expire as follows (such period, the "**Term**"): (a) on a Licensed Product-by-Licensed Product and country-by-country basis, upon the expiration of the Royalty Term for such Licensed Product in such country ; and (b) in its entirety upon the earlier of (i) the expiration of all Royalty Terms with respect to all Licensed Products in all countries , or (ii) the termination of this Agreement with respect to all Research Programs pursuant to Section 11.2.1, in the event BMS does not exercise any Option.

**11.2 Termination by BMS**.

**11.2.1 Automatic Termination of Research Program**. This Agreement shall automatically terminate with respect to a Collaboration Target and with respect to all ETBs and Development Candidates arising under the corresponding Research Program on the Option End Date with respect to such Collaboration Target as set forth in Section 4.3, and, for clarity, such Collaboration Target will automatically become a Terminated Target effective as of such Option End Date with no further action by the Parties.

**11.2.2 BMS' Termination for Convenience**. BMS shall have the right to terminate this Agreement in its entirety, or on a Collaboration Target-by-Collaboration Target basis, for any or no reason, by providing written notice of its intent to terminate to MTEM, in which case, such termination will be effective [***] after MTEM's receipt of such written notice.

**11.3 Termination for Material Breach** . Each Party shall have the right to terminate this Agreement in its entirety [***] upon written notice to the other Party if such other Party materially breaches this Agreement and has not cured such breach to the reasonable satisfaction of the non-breaching Party within [***] (or within [***] with respect to any payment-related breach) after receipt from the non-breaching Party of written notice specifying the breach and requesting its cure; *provided*, that if any breach (other than a payment-related breach) is curable, but not reasonably curable within [***] and if the breaching Party is making a *bona fide* effort to cure such breach, the non-breaching Party's right to terminate this Agreement on account of such breach will be suspended for so long as the breaching Party is continuing to make such *bona fide* effort to cure such breach, and if such breach is successfully cured, the non-breaching Party will no longer have the right to terminate this Agreement on account of such breach. Notwithstanding the foregoing, if the breaching Party disputes in good faith the existence or materiality of any breach, and provides written notice to the non-breaching Party of such dispute within the relevant cure period, the non-breaching Party will not have the right to terminate this Agreement pursuant to this Section 11.3 unless and until the relevant dispute has been resolved pursuant to Section 13.6 . During the pendency of such dispute, the applicable cure period will be tolled , all the terms of this Agreement will remain in effect, and the Parties will continue to perform all of their respective obligations hereunder.

**11.4 Termination for Insolvency**. If, at any time during the Term, either Party makes an assignment for the benefit of creditors, appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, files a petition under any bankruptcy or insolvency act or has any such petition filed against it that is not discharged within [***] after the filing thereof , the other Party may terminate this Agreement in its entirety by providing written notice of its intent to terminate this Agreement to such Party, in which case, this Agreement will terminate on the date on which such Party receives such written notice.

**11.5 Termination by MTEM for Patent Challenge**. MTEM shall have the right to terminate this Agreement in its entirety upon written notice to BMS in the event that BMS or any of its Affiliates or Sublicensees, directly or indirectly, individually or in association with any other Person, asserts, assists or directs a Patent Challenge; *provided* that with respect to any Patent Challenge by any Sublicensee, MTEM will not have the right to terminate this Agreement under this Section 11.5 if, within [***] after MTEM's notice to BMS under this Section 11.5, BMS (a) terminates the sublicense granted to such Sublicensee or (b) causes such Patent Challenge to be terminated or dismissed. For purposes of this Section, "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity, ownership, enforceability, term or scope of any of the MTEM Licensed Patents (or any claim thereof), including by: (i) filing or pursuing a declaratory judgment action in which any of the MTEM Licensed Patents is alleged to be invalid or unenforceable; (ii) citing prior art against any of the MTEM Licensed Patents (other than art required to be

cited by Applicable Law, including under a duty of candor to a patent office), filing a request for or pursuing a re-examination of any of the MTEM Licensed Patents (other than with MTEM's written agreement), or becoming a party to or pursuing an interference; (iii) filing, or joining in, a petition under 35 U.S.C. § 311 (or any foreign statute or regulation that is equivalent or similar thereto) to institute inter partes review of any MTEM Licensed Patent; (iv) filing, or joining in, a petition under 35 U.S.C. § 321 (or any foreign statute or regulation that is equivalent or similar thereto) to institute post-grant review of any MTEM Licensed Patent or any portion thereof; or (v) filing or pursuing any opposition, cancellation, nullity, or other like proceedings against any of the MTEM Licensed Patents. The foregoing right to terminate this Agreement shall not apply with respect to any Patent Challenge that is made by BMS or its Affiliates or Sublicensees in response to and as a defense against a claim, action, or proceeding asserted by MTEM with respect to the relevant MTEM Licensed Patents .

**11.6 Effects of Termination.** Upon termination of this Agreement, the terms of this Section 11.6 shall apply. For clarity, if this Agreement is terminated only with respect to a Collaboration Target and not in its entirety, the terms of this Section 11.6 shall apply only to the Terminated Target.

**11.6.1 License Rights**.

(a) Upon any termination of this Agreement with respect to a Collaboration Target, all rights and licenses granted with respect to such Collaboration Target and all Licensed Development Candidates, Licensed Products and ETBs Directed to such Collaboration Target under Section 5.1.1 and Section 5.2.1 shall terminate and be of no further force or effect, and such Target shall be deemed a Terminated Target hereunder.

(b) Upon termination of this Agreement by BMS in its entirety or with respect to a Collaboration Target pursuant to Section 11.2 or upon termination of this Agreement by MTEM pursuant to Section 11.3, Section 11.4 or Section 11.5 [***] , except in the event that termination of this Agreement is due to a Material Safety Issue, at MTEM's election, exercisable by written notice within [***] after such termination, [***] a license or sublicense, as applicable, under all (or certain of) BMS Patents and BMS Know-How, that are necessary or reasonably useful to make, have made, use, sell, offer for sale, import and otherwise Exploit ETBs and products containing or comprising ETBs [***] that are Directed to the Terminated Target(s), which agreement, if entered into, will include (if and to the extent applicable) the right for MTEM to practice for such purposes [***] (as applicable) notwithstanding Section 5.1.3 and Section 5.1.4. For purposes of this Agreement, "**Material Safety Issue**" shall mean [***] good faith belief that there is an unacceptable risk for harm in humans [***].

**11.6.2 Exclusivity**.Upon any termination of this Agreement with respect to a Collaboration Target, MTEM's obligations under Section 5.6.1 and Section 5.6.2 with respect to such Target shall terminate.

**11.6.3 Patent Prosecution.** Upon any termination of this Agreement with respect to a Collaboration Target, BMS' rights in respect of the prosecution and enforcement of any

MTEM Licensed Patents and Joint Collaboration Patents, including any Optioned Product-Specific Patents, but excluding [***], shall terminate. If BMS has assumed the prosecution of any Optioned Product-Specific Patent pursuant to Section 8.2.5, BMS shall ensure that the prosecution of such Optioned Product-Specific Patent(s), [***], is transferred to MTEM in a prompt and orderly fashion such that no deadline is missed in respect of such prosecution and/or enforcement and that the scope of such Patents is not limited or restricted as a consequence of such transfer.

**11.6.4 Confidential Information**. The terms of Section 12.3 shall apply with respect to return or destruction of Confidential Information.

**11.7 Remedies**. Except as otherwise expressly provided herein, the rights and remedies provided herein are cumulative and do not exclude any other right or remedy provided by Applicable Law or otherwise available, and termination of this Agreement in accordance with the provisions hereof shall not limit any remedies that may otherwise be available in law or equity.

**11.8 Accrued Rights; Surviving Obligations**. Termination or expiration of this Agreement for any reason shall be without prejudice to any rights that shall have accrued to the benefit of a Party prior to such termination or expiration. Such termination or expiration shall not relieve a Party from obligations that are expressly indicated to survive the termination or expiration of this Agreement. Without limiting the foregoing, the following Sections and Articles shall survive any such termination or expiration: Section 2.5.1 (last sentence); Section 2.8.1 (Transfer) (last two sentences only); Section 2.8.2 (License; Ownership); Section 5.1.4 ([***]); Section 5.2.2 (ETB Platform Licenses); Section 6.2.2 (last sentence); Sections 7.2 through 7.9 and Section 7.12 (to the extent applicable to unsatisfied payment obligations that accrued prior to termination or expiration); Section 7.10 (Records; Audits); Section 7.11 (Confidentiality); Section 8.1 (Ownership of Intellectual Property); Section 8.2 (Prosecution and Maintenance of Patents) (solely to the extent applicable to [***], Product-Platform Patents and [***]); Section 8.3 (Enforcement of Patents) [***] Section 8.5 (Invalidity or Unenforceability Defenses or Actions) [***]; Section 8.8 (Recording); Section 9.4 (Disclaimer); Section 11.6 (Effects of Termination); Section 11.7 (Remedies); Section 11.8 (Accrued Rights; Surviving Obligations); Section 13.1 (Assignment); Section 12.5.1 (last sentence); Section 13.3 (Force Majeure) (to the extent applicable to other surviving provisions); Section 13.5 (Governing Law); Section 13.6 (Dispute Resolution); Section 13.7 (Notices); Section 13.8 (Entire Agreement; Amendments); Section 13.10 (Waiver and Non-Exclusion of Remedies); Section 13.12 (Independent Contractors); Section 13.13 (Interpretation) (to the extent applicable to other surviving provisions); Section 13.14 (No Third Party Rights or Obligations); ARTICLE 1 (Definitions) (to the extent applicable to other surviving provisions); ARTICLE 10 (Indemnification, Insurance, Limitations); and ARTICLE 12 (Confidentiality) (excluding Section 12.5 (Publications)).

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

## ARTICLE 12

## CONFIDENTIALITY

**12.1 Confidentiality Obligations**. During the Term and for a period of [***] following termination or expiration of this Agreement in its entirety, each Receiving Party shall, and shall cause its Affiliates and its and their respective officers, directors, employees, consultants, contractors, and agents to, keep confidential and not publish or otherwise disclose to a Third Party and not use, directly or indirectly, for any purpose, any Confidential Information of the other Party, except to the extent such disclosure or use is expressly permitted under this Agreement, including for the Receiving Party to exercise its rights and licenses and perform its obligations under this Agreement, or otherwise agreed in writing. Notwithstanding the foregoing, the confidentiality and non-use obligations under this Section 12.1 shall not apply to any information that the Receiving Party can demonstrate by contemporaneous written records or other competent proof:

**12.1.1** is or hereafter becomes part of the public domain other than through any act or omission of the Receiving Party or any of its Representatives;

**12.1.2** was in the Receiving Party's possession prior to disclosure by the other Party without any obligation of confidentiality with respect to such information (*provided* that this exception shall not modify or otherwise affect the last sentence of Section 1.40);

**12.1.3** is subsequently received by the Receiving Party from a Third Party without restriction and without breach of any agreement between such Third Party and the disclosing Party;

**12.1.4** is generally made available to Third Parties by the disclosing Party without restriction on disclosure; or

**12.1.5** has been independently developed by or for the Receiving Party without reference to or use of the disclosing Party's Confidential Information.

Specific aspects or details of Confidential Information shall not be deemed to be within the public domain or in the possession of the Receiving Party merely because the Confidential Information is embraced by more general information in the public domain or in the possession of the Receiving Party. Further, any combination of Confidential Information shall not be considered in the public domain or in the possession of the Receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the Receiving Party unless the combination and its principles are in the public domain or in the possession of the Receiving Party.

**12.2 Authorized Disclosures**. Notwithstanding Section 12.1, each Receiving Party may disclose Confidential Information of the other Party to the extent such disclosure is reasonably necessary in the following instances:

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

**12.2.1** filing or prosecuting Patents as permitted by this Agreement, or prosecuting or defending litigation as permitted by this Agreement;

**12.2.2** complying with Applicable Law, including to obtain and maintain Marketing Approval of the Licensed Products as permitted by this Agreement, and complying with applicable court orders or governmental regulations, including regulations promulgated by securities exchanges on which the securities of the Receiving Party are listed (or to which an application for listing has been submitted);

**12.2.3** disclosure to its Representatives, in each case on a need-to-know basis in connection with the Receiving Party's Development (including research under the Research Plans), Manufacture, or Commercialization of any ETB, Development Candidate or Licensed Product in accordance with the terms of this Agreement, in each case provided that such disclosure is covered by terms of confidentiality and non-use at least as restrictive as those set forth herein; and

**12.2.4** disclosure to its actual and bona fide potential investors, lenders or other financing sources, acquirors, licensees, and Sublicensees for the purpose of evaluating or carrying out an actual or potential investment, loan, financing, acquisition, or collaboration, in each case provided that such disclosure is covered by terms of confidentiality and non-use that are materially consistent with those set forth herein.

Notwithstanding the foregoing, in the event a Receiving Party is required to make or otherwise will make a disclosure of the other Party's Confidential Information pursuant to Section 12.2.1 or Section 12.2.2, it will, to the extent possible, give reasonable advance notice to the other Party of such disclosure and comply with all reasonable requests of the other Party with respect to maintaining confidence of such Confidential Information, and in any event the Receiving Party will use the same diligent efforts to secure confidential treatment of such Confidential Information as the Receiving Party would use to protect its own Confidential Information, but in no event less than reasonable efforts. In any event, the Parties agree to take all reasonable action to avoid disclosure of Confidential Information and any information disclosed pursuant to this Section shall remain Confidential Information and subject to the foregoing provisions of this ARTICLE 12.

**12.3 Expiration or Termination of this Agreement**. Following expiration or termination of this Agreement in its entirety, each Receiving Party shall, if requested by the other Party, promptly return to the other Party, or at the Receiving Party's election delete or destroy (and provide certification of such destruction), all records and materials in such Receiving Party's possession or control containing Confidential Information of the other Party. If this Agreement is terminated with respect to one or more Collaboration Target(s), but not in its entirety, then following such termination, BMS shall promptly return to MTEM or, at BMS' election, delete or destroy (and provide certification of such destruction), all records and materials in BMS' possession or control containing Confidential Information relating to the Terminated Target(s). [***]. Notwithstanding the foregoing, each Receiving Party shall also be permitted to retain (a) one copy of the other Party's Confidential Information for the sole

purpose of performing any continuing obligations under this Agreement, as required by Applicable Law, or for legal archival purposes, and (b) such additional copies of or any computer records or files containing the other Party's Confidential Information that have been created solely by such Receiving Party's automatic archiving and back-up procedures, to the extent created and retained in a manner consistent with such Party's standard archiving and back-up procedures, but not for any other use or purpose.

**12.4 Public Announcements**. On a date to be determined by MTEM after the Effective Date, MTEM will issue a press release regarding the signing of this Agreement, in a mutually agreed form. Other than such press release, neither Party shall issue any public announcement, press release, or other public disclosure regarding the terms of this Agreement or its subject matter without the other Party's prior written consent, except for any such disclosure that is, in the opinion of the disclosing Party's counsel, required by Applicable Law or the rules of a stock exchange on which the securities of the disclosing Party are listed (or to which an application for listing has been submitted). In the event a Party is, in the opinion of its counsel, required by Applicable Law or the rules of a stock exchange on which its securities are listed (or to which an application for listing has been submitted) to make such a public disclosure, such Party shall submit the proposed disclosure in writing to the other Party as far in advance as reasonably practicable (and no less than [***] prior to the anticipated date of disclosure unless Applicable Law requires a shorter period of time) so as to provide a reasonable opportunity to comment thereon. Notwithstanding anything to the contrary herein, following the initial press release announcing this Agreement, each Party shall be free to publicly announce or otherwise disclose, without the other Party's prior written consent, the existence of this Agreement, the identity of the other Party, and such terms of this Agreement and information which have already been publicly disclosed in accordance herewith.

**12.5 Publications**. The Parties acknowledge that scientific publications must be strictly monitored to prevent adverse or unintended impacts from premature publication of results of the Development activities (including research under the Research Plans) hereunder.

**12.5.1 Publications Prior to Option End Date or License Effective Date** . On a Research Program-by-Research Program basis, during the term of such Research Program and prior to the Option End Date or, if applicable, the License Effective Date with respect to any Licensed Development Candidate Developed thereunder, neither Party will make any academic, scientific, medical or other publication or public presentation related to any ETB Directed to a Collaboration Target and being Developed in such Research Program or related to the applicable Collaboration Target that is the subject of such Research Program or any activities conducted pursuant to such Research Program, in each case, without the other Party's prior written consent and review in accordance with Section 12.5.3. For clarity, if BMS does not exercise the Option with respect to a Collaboration Target or if a Target otherwise becomes a Terminated Target hereunder, the terms of this Section 12.5 shall not apply to such Terminated Target or any ETBs Directed to such Terminated Target after the Option End Date or after the date on which such Target becomes a Terminated Target, as applicable, and MTEM may make academic, scientific, medical or other publications or public presentations related to any Terminated Target and any

ETB, Licensed Development Candidate or Licensed Product Directed to such Terminated Target, [***]. [***].

**12.5.2 Publications Following License Effective Date**. Following the License Effective Date with respect to any Licensed Development Candidate, (a) MTEM will not make any academic, scientific, medical or other publication or public presentation related to such Licensed Development Candidate, the applicable Collaboration Target with respect to which BMS exercised the Option, or any Licensed Products Directed such Collaboration Target, in each case, without BMS' prior written consent and review in accordance with Section 12.5.3, and (b) BMS shall have the right to make any academic, scientific, medical or other publication or public presentation related to such Licensed Development Candidate, the applicable Collaboration Target and Licensed Products Directed to such Collaboration Target, subject only to MTEM's prior review in accordance with Section 12.5.3.

**12.5.3 Review Process**. Before any paper is submitted for publication or oral presentation is made, which publication or presentation is subject to review under Section 12.5.1 or Section 12.5.2, the publishing or presenting Party (the "**Publishing Party**") shall deliver a then-current copy of the paper or presentation materials to the non-publishing Party no later than [***] before submission for publication or presentation (or [***] in advance in the case of an abstract). The non-publishing Party will review such paper or presentation materials and provide its comments to the Publishing Party within [***] (or [***] in the case of an abstract) after the non-publishing Party's receipt of such paper or presentation materials. The Publishing Party shall comply with the other Party's request to delete the other Party's Confidential Information in any such paper or presentation and will, at the other Party's request, withhold publishing any such paper or making any such presentation for an additional [***] in order to permit the Parties to obtain Patent protection for any invention disclosed in such paper or presentation.

**12.5.4 Publications Regarding ETB Platform** . MTEM may, at any time during the Term, make academic, scientific, medical or other publications or public presentations related to the ETB Platform; *provided* that such publications or public presentations do not disclose (unless BMS consents to such disclosure and following review in accordance with Section 12.5.3) (a) during the term of a Research Program and prior to the Option End Date or, if applicable, the License Effective Date with respect to any Licensed Development Candidate Developed thereunder, any information related to activities conducted pursuant to such Research Program, the applicable Collaboration Target that is the subject of such Research Program, or any ETBs Directed to such Collaboration Target and Developed under such Research Program or (b) if applicable, after the License Effective Date with respect to any Licensed Development Candidate Developed under a Research Program, any information related to such Licensed Development Candidate , the applicable Collaboration Target with respect to which BMS exercised the Option, or any Licensed Product Directed to such Collaboration Target.

## ARTICLE 13

## MISCELLANEOUS

**13.1 Assignment**. Except as expressly provided hereunder, neither this Agreement nor any rights or obligations hereunder may be assigned or otherwise transferred by either Party without the prior written consent of the other Party (which consent shall not be unreasonably withheld, conditioned, or delayed); *provided*, that either Party may assign or otherwise transfer this Agreement and its rights and obligations hereunder without the other Party's consent:

**13.1.1** in connection with the transfer or sale to a Third Party of all or substantially all of the business or assets of such Party to which this Agreement relates, whether by merger, consolidation, divesture, restructure, sale of stock, sale of assets, or otherwise; *provided* that in the event of any such transaction (whether this Agreement is actually assigned or is assumed by the acquiring Party by operation of law (e.g., in the context of a reverse triangular merger)), (a) the Know-How, Patents, and other intellectual property rights of the acquiring party to such transaction (if other than one of the Parties to this Agreement) shall not be included in the technology for which rights have been granted under this Agreement, and (b) such Party shall provide notice of such assignment to the other Party; or

**13.1.2** to an Affiliate, provided that if the entity to which this Agreement is assigned ceases to be an Affiliate of the assigning Party, this Agreement shall be automatically assigned back to the assigning Party or its successor.

The rights and obligations of the Parties under this Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of the Parties, and the name of a Party appearing herein will be deemed to include the name of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Section 13.1. Any assignment not in accordance with this Section 13.1 shall be null and void.

**13.2 Change of Control**.

**13.2.1 Notice**. Each Party (or its successor) shall provide the other Party with written notice of any Change of Control [***] (and in any event within [***]) following the closing of such Change of Control of such Party.

**13.2.2 Effects of Change of Control**. If, during the Term, MTEM undergoes a Change of Control, from and after the closing of such Change of Control, MTEM and its Preexisting Affiliates, on the one hand, and the acquirer and its Affiliates (other than MTEM and its Preexisting Affiliates), on the other hand, shall establish and enforce internal processes, policies, procedures and systems to segregate BMS 's Confidential Information, including Research Plans and reports pursuant to ARTICLE 2 and reports pursuant to ARTICLE 6 and ARTICLE 7, such that the acquirer and its Affiliates (other than MTEM and its Preexisting Affiliates) do not obtain access to Confidential Information of BMS. In addition, in the case of

Change of Control of MTEM, (a) MTEM will devote the same level and quality of FTEs and other resources under each Research Plan and will use the same level of effort, which in no case will be less than Commercially Reasonable Efforts, to progress such Research Plan, in each case, as were dedicated to such activities prior to such Change of Control and (b) if such acquirer or any its Affiliates (other than MTEM and its Preexisting Affiliates) has a program or otherwise is engaged in any activities that would be prohibited under Section 5.6 ("**Prohibited Programs**") then, [***].

**13.3 Force Majeure**. Each Party will be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented or delayed by Force Majeure and the nonperforming Party promptly provides written notice to the other Party of the Force Majeure. Such excuse will continue for so long as the condition constituting a Force Majeure continues, on the condition that the nonperforming Party continues to use commercially reasonable efforts to remove or mitigate the Force Majeure and resume performance of its obligations under this Agreement.

**13.4 Severability**. If, for any reason, any part of this Agreement is adjudicated invalid, unenforceable, or illegal by a court of competent jurisdiction, such adjudication shall not, to the extent feasible, affect or impair, in whole or in part, the validity, enforceability, or legality of any remaining portions of this Agreement. All remaining portions shall remain in full force and effect as if the original Agreement had been executed without the invalidated, unenforceable, or illegal part. In such event, the Parties shall negotiate promptly to replace such invalid, unenforceable, or illegal part with a valid, enforceable, and legal provision which most closely effectuates the Parties' original intent.

**13.5 Governing Law**. This Agreement and the performance, breach, or termination hereof shall be governed by and construed in accordance with the laws of the State of New York, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction. The parties agree to exclude the application to this Agreement of the United Nations Convention on Contracts for the International Sale of Goods.

**13.6 Dispute Resolution**. Except for disputes resolved by the procedures set forth in Section 1.109 and Section 3.5.2, if a dispute arises between the Parties in connection with or relating to this Agreement or any document or instrument delivered in connection herewith (a "**Dispute**"), it shall be resolved pursuant to this Section 13.6.

**13.6.1 General**. Any Dispute shall first be referred to the Senior Officers of the Parties, who shall confer in good faith on the resolution of the issue. Any final decision mutually agreed upon by the Senior Officers shall be conclusive and binding on the Parties.

**13.6.2 Mediation**. If the Senior Officers are not able to agree on the resolution of any Dispute within [***] (or such other period of time as mutually agreed by the Senior Officers) after such Dispute was first referred to them, then within [***] after the end of such [***] or such other mutually-agreed period of time, either Party may serve notice to the other Party referring the Dispute to confidential mediation administered by the AAA under its Mediation Procedures

(subject to this Section 13.6.2 ) before resorting to arbitration pursuant to Section 13.6.3. If the Parties are unable to agree on a mediator within [***] after service of the mediation notice, a mediator shall be appointed by the AAA. The mediation session shall last for at least [***] before any Party has the option to withdraw from the process. The Parties may agree to continue the mediation process beyond [***], until there is a settlement agreement, or one Party or the mediator states that there is no reason to continue. The Parties agree to have their respective principals participate in the mediation process, including being present throughout the mediation session(s). Any period of limitations that would otherwise expire between the reference of the Dispute to the Senior Officers of the Parties and the conclusion of the mediation shall be extended until [***] after the conclusion of mediation.

**13.6.3 Arbitration**. If a Dispute is not resolved through mediation pursuant to Section 13.6.2, then, except as otherwise set forth in Section 13.6.4, if a Party wishes to pursue further resolution of such Dispute, such Party shall initiate arbitration proceedings pursuant to the procedures set forth in this Section 13.6.3 for purposes of having the matter finally settled. For clarity, the Parties may only resort to arbitration to resolve a Dispute after the Parties have escalated the Dispute to the Senior Officers pursuant to Section 13.6.1 and attempted to mediate the Dispute pursuant to Section 13.6.2. If a Party wishes to pursue further resolution of such Dispute through arbitration, then the Parties shall submit such dispute for resolution by binding arbitration before a tribunal of three (3) arbitrators in accordance with the Commercial Arbitration Rules of the AAA (the "**Rules**"), as then in effect. Each Party shall nominate one arbitrator within [***] after the date the demand for arbitration is served and the third arbitrator shall be nominated by the two Party-nominated arbitrators within [***] after the second arbitrator's appointment. If a Party does not nominate its arbitrator within such [***] period or the two Party-nominated arbitrators do not nominate the third arbitrator within such [***] period, then such arbitrator(s) shall be appointed by the AAA in accordance with the Rules. Each arbitrator shall have at least [***] of relevant experience in the pharmaceutical industry (and the field of pharmaceutical development, commercialization or any other relevant area, as applicable). If, at the time a Party indicates that it wishes to pursue further resolution of a Dispute through arbitration, the Parties agree in writing to submit the Dispute to a single arbitrator, such single arbitrator will have at least [***] of relevant experience in the pharmaceutical industry (and the field of pharmaceutical development, commercialization or any other relevant area, as applicable) and will be appointed by agreement of the Parties [***] after the date the demand for arbitration is served, or, failing such agreement, by the AAA in accordance with the Rules. The seat, or legal place, of the arbitration shall be New York City, New York. The arbitration shall be conducted, and all documents submitted to the arbitrators shall be, in English. Each Party shall bear its own legal costs for its counsel and other expenses, and the Parties shall equally share the fees and costs of the arbitration; *provided* that the arbitrators shall have the discretion to require the losing Party to bear all or a portion of such arbitration fees and costs and in such case the arbitral award will so provide. The arbitrators shall have no power to award punitive, special, incidental, or consequential damages. In no event shall the arbitrators assign a value to any issue greater than the greatest value for such issue claimed by either Party or less than the smallest value for such issue claimed by either Party. The arbitral award shall be final and binding upon the Parties and the Parties shall carry out the award without delay . Judgment on the award rendered by arbitration may be entered in any court of competent jurisdiction. Except to the extent necessary to confirm, enforce, or

challenge an award of the arbitration, to protect or pursue a legal right, or as otherwise required by Applicable Law, neither Party nor any arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both Parties. Notwithstanding anything to the contrary in the foregoing, in no event shall an arbitration be initiated after the date when commencement of a legal or equitable proceeding based on the Dispute would be barred by the applicable New York statute of limitations. Any disputes concerning the propriety of the commencement of the arbitration shall be finally settled by the arbitral tribunal.

**13.6.4 Intellectual Property Disputes**. Notwithstanding the foregoing in this Section 13.6, if a Dispute arises with respect the validity, scope, enforceability, inventorship or ownership of any Patent, trademark or other intellectual property rights, and such Dispute is not resolved in accordance with Section 13.6.1, unless otherwise agreed by the Parties in writing, such Dispute shall not be submitted to mediation or arbitration in accordance with Section 13.6.2 or Section 13.6.3 and, instead, either Party may initiate litigation in a court of competent jurisdiction, notwithstanding Section 13.5, in any country or other jurisdiction in which such intellectual property rights apply; *provided*, that all questions concerning (a) inventorship of Patents under this Agreement shall be determined in accordance with Section 8.1.1 and (b) the construction or effect of Patents shall be determined in accordance with the laws of the country or other jurisdiction in which the particular Patent has been filed or granted, as the case may be.

**13.6.5 Equitable Relief**. Notwithstanding anything herein to the contrary, nothing in this Section 13.6 will in any way limit or preclude a Party from, at any time, seeking or obtaining equitable relief hereunder, whether preliminary or permanent, including a temporary or permanent restraining order, preliminary or permanent injunction, specific performance or any other form of equitable relief, from any United States court of competent jurisdiction if necessary to protect the interests of such Party pending resolution of a Dispute. Each Receiving Party agrees that its unauthorized release of the other Party's Confidential Information may cause irreparable damage to other Party [***].

**13.7 Notices**. Any notice or other communication required under this Agreement shall be in writing, shall refer specifically to this Agreement, and shall be deemed given only if (a) delivered by hand, (b) sent by internationally recognized overnight delivery service, or (c) sent by email and confirmed by registered or certified mail, addressed to the Parties at their respective addresses specified below or to such other address as a Party may specify in accordance with this Section 13.7. Such notice shall be deemed to have been given (i) as of the date delivered, if delivered by hand, (ii) on the second business day (at the place of delivery) after deposit with an internationally recognized overnight delivery service, or (iii) on the fifth business day after mailing by registered or certified mail. This Section 13.7 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

If to BMS, to:

Bristol-Myers Squibb Company
Route 206 and Province Line Road
Princeton, NJ 08543

**[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED BECAUSE THE INFORMATION (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED**

Attention: Vice President, Business Development, Hematology, Cell Therapy, and China

With a copy (which will not constitute notice) to:

Bristol-Myers Squibb Company
Route 206 and Province Line Road
Princeton, NJ. 08543
Attention: Senior Vice President & Associate General Counsel, Transactions

If to MTEM, to:

Molecular Templates, Inc.
9301 Amberglen Blvd., Suite100
Austin, Texas 78729
Attention: President and COO

with a copy (which will not constitute notice) to:

Molecular Templates, Inc.
9301 Amberglen Blvd., Suite 100
Austin, Texas 78729
Attention: Legal Counsel

**13.8 Entire Agreement; Amendments**. This Agreement, together with the Schedules attached hereto, sets forth and constitutes the entire agreement and understanding between the Parties with respect to the subject matter hereof and all prior agreements, understandings, promises, and representations, whether written or oral, with respect thereto are superseded hereby (including that certain Mutual Confidentiality Agreement between BMS and MTEM dated [***] ("**Confidentiality Agreement**"); *provided* that all "Confidential Information" disclosed or received under such Confidentiality Agreement shall be deemed "Confidential Information" under this Agreement and subject to the terms and conditions of this Agreement). Each Party confirms that it is not relying on any statements, representations or warranties of the other Party, express or implied, except as specifically set forth in this Agreement. No amendment, modification, release, or discharge shall be binding upon the Parties unless in writing and duly executed by authorized representatives of both Parties.

**13.9 English Language**. This Agreement shall be written and executed in, and all other communications under or in connection with this Agreement shall be in, the English language. Any translation into any other language shall not be an official version thereof, and in the event of any conflict in interpretation between the English version and such translation, the English version shall control.

**13.10 Waiver and Non-Exclusion of Remedies**. Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by the Party waiving such term or condition. The waiver by either Party of any right or of the failure

to perform or of a breach by the other Party shall not be deemed a waiver of any other right or of any other breach or failure by such other Party whether of a similar nature or otherwise.

**13.11 Export Control**. Neither Party shall export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other Governmental Authority in accordance with Applicable Law.

**13.12 Independent Contractors**. MTEM and BMS are independent contractors and the relationship between the Parties shall not constitute a partnership, joint venture, or agency, including for tax purposes. Neither Party shall have the authority to make any statements, representations, or commitments of any kind, or to take any action, which shall be binding on the other Party, without the prior written consent of such other Party. All persons employed by a Party shall be employees of such Party and not of the other Party and all costs and obligations incurred by reason of any such employment shall be for the account and expense of such Party.

**13.13 Interpretation** . Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa), (b) the words "include," "includes" and "including" will be deemed to be followed by the phrase "without limitation," (c) the word "will" will be construed to have the same meaning and effect as the word "shall," (d) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any Person will be construed to include the Person's successors and assigns, (f) the words "herein," "hereof" and "hereunder," and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to Sections or Schedules will be construed to refer to Sections or Schedules of this Agreement, and references to this Agreement include all Schedules hereto, (h) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof, (i) any action or occurrence deemed to be effective as of a particular date will be deemed to be effective as of 11:59 PM ET on such date, and (j) the term "or" will be interpreted in the inclusive sense commonly associated with the term "and/or."

**13.14 No Third Party Rights or Obligations**. Except as provided in ARTICLE 10, the covenants and agreements set forth in this Agreement are for the sole benefit of the Parties hereto and their successors and permitted assigns, and they shall not be construed as conferring any rights on any other Persons.

**13.15 Further Actions**. Each Party shall duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents, and instruments, as may be necessary or as the other Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm unto such other Party its rights and remedies under this Agreement.

**13.16 Counterparts; Electr**onic Execution. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may be executed by electronically transmitted signatures and such signatures shall be deemed to bind each Party as if they were original signatures.

{SIGNATURE PAGE FOLLOWS}

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This Collaboration Agreement is executed by the authorized representatives of the Parties as of the Effective Date.

**BRISTOL-MYERS SQUIBB COMPANY**

| | |
|---|---|
| By: | /s/ Jie D'Elia |
| Name: | Jie D'Elia |
| Title: | Vice President, Business Development, Hematology, Cell Therapy and China |

**MOLECULAR TEMPLATES, INC.**

| | |
|---|---|
| By: | /s/ Eric Poma, Ph.D |
| Name: | Eric Poma, Ph.D. |
| Title: | Chief Executive Officer |

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**Schedule 1.34**

[***]

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**Schedule 1.58**

[***]

[***]

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**Schedule 1.81**

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**Exhibit 31.1**

CERTIFICATIONS UNDER SECTION 302

I, Eric E. Poma, Ph.D., certify that:

1. I have reviewed this quarterly report on Form 10-Q of Molecular Templates, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2021

/s/ Eric E. Poma, Ph.D.
Eric E. Poma, Ph.D.
Chief Executive Officer

**Exhibit 31.2**

CERTIFICATIONS UNDER SECTION 302

I, Adam Cutler, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Molecular Templates, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2021

/s/ Adam Cutler
Adam Cutler
Chief Financial Officer

**Exhibit 32.1**

CERTIFICATIONS UNDER SECTION 906

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Molecular Templates, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the quarter ended March 31, 2021 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 14, 2021

/s/ Eric E. Poma, Ph.D.
Eric E. Poma, Ph.D.
Chief Executive Officer

Dated: May 14, 2021

/s/ Adam Cutler
Adam Cutler
Chief Financial Officer