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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2020

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 001-36193

Trevena, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware **26-1469215**
(State or Other Jurisdiction of Incorporation or Organization) (I.R.S. Employer Identification No.)

955 Chesterbrook Boulevard, Suite 110 **19087**
Chesterbrook, PA **(Zip Code)**
(Address of Principal Executive Offices)

Registrant's telephone number, including area code: **(610) 354-8840**

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.001 par value	TRVN	The Nasdaq Stock Market LLC

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, or 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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practical date.

Common Stock, \$0.001 par value Shares outstanding as of May 5, 2020: 107,180,976

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Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q, or this “Quarterly Report,” contains forward-looking statements that involve substantial risks and uncertainties. The forward-looking statements are contained principally in the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” but also are contained elsewhere in this Quarterly Report, as well as in sections such as “Risk Factors” that are incorporated by reference into this Quarterly Report from our most recent [Annual Report on Form 10-K](#), or the “Annual Report.” In particular, we caution you that our forward-looking statements are subject to the ongoing and developing circumstances related to the COVID-19 pandemic, which may have a material adverse effect on our business, operations and future financial results. In some cases, you can identify forward-looking statements by the words “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue” and “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

- any ongoing or planned clinical trials and preclinical studies for our product candidates;
- the extent of future clinical trials potentially required by the FDA for our product candidates;
- our ability to fund future operating expenses and capital expenditures with our current cash resources or to secure additional funding in the future;
- the timing and likelihood of obtaining and maintaining regulatory approvals for our product candidates;
- our plans to develop and potentially commercialize our product candidates;
- the clinical utility and market acceptance of our product candidates, particularly in light of existing and future competition;
- our sales, marketing, and manufacturing capabilities and strategies;
- our intellectual property position;
- ongoing litigation; and
- our ability to identify additional product candidates with significant commercial potential that are consistent with our commercial objectives.

You should refer to the “Risk Factors” section of this Quarterly Report and our Annual Report for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Quarterly Report will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

PART I

ITEM 1. FINANCIAL STATEMENTS

TREVENA, INC.

Balance Sheets

(in thousands, except share and per share data)

	March 31, 2020 (unaudited)	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 28,090	\$ 32,305
Marketable securities	—	3,500
Prepaid expenses and other current assets	1,666	1,683
Total current assets	29,756	37,488
Restricted cash	1,310	1,309
Property and equipment, net	2,577	2,705
Right-of-use lease asset	5,389	5,472
Other assets	18	20
Total assets	\$ 39,050	\$ 46,994
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable, net	\$ 698	\$ 1,047
Accrued expenses and other current liabilities	1,277	2,403
Current portion of loans payable, net	—	5,037
Lease liability	642	620
Total current liabilities	2,617	9,107
Leases, net of current portion	7,636	7,804
Warrant liability	2	5
Total liabilities	10,255	16,916
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock—\$0.001 par value; 200,000,000 shares authorized at March 31, 2020 and December 31, 2019; 99,030,004 and 94,213,760 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively	99	94
Preferred stock—\$0.001 par value; 5,000,000 shares authorized, none issued or outstanding at March 31, 2020 and December 31, 2019	—	—
Additional paid-in capital	447,566	443,129
Accumulated deficit	(418,870)	(413,145)
Total stockholders' equity	28,795	30,078
Total liabilities and stockholders' equity	\$ 39,050	\$ 46,994

See accompanying notes to financial statements.

TREVENA, INC.

Statements of Operations and Comprehensive Loss (Unaudited)
(in thousands, except share and per share data)

	Three Months Ended	
	March 31,	
	2020	2019
Revenue:		
License revenue	\$ —	\$ —
Operating expenses:		
General and administrative	3,632	3,060
Research and development	2,191	2,154
Total operating expenses	5,823	5,214
Loss from operations	(5,823)	(5,214)
Other income (expense):		
Change in fair value of warrant liability	3	(12)
Other income, net	69	257
Interest income	52	153
Interest expense	(29)	(353)
Gain on foreign currency exchange	3	—
Total other income	98	45
Loss before income tax expense	(5,725)	(5,169)
Income tax expense	—	—
Net loss attributable to common stockholders	\$ (5,725)	\$ (5,169)
Other comprehensive gain, net:		
Unrealized gain on marketable securities	—	12
Other comprehensive gain, net	—	12
Comprehensive loss	\$ (5,725)	\$ (5,157)
Per share information:		
Net loss per share of common stock, basic and diluted	\$ (0.06)	\$ (0.06)
Weighted average common shares outstanding, basic and diluted	96,332,324	88,897,292

See accompanying notes to financial statements.

TREVENA, INC.

Statement of Stockholders' Equity (Unaudited)
(in thousands, except share data)

	Stockholders' Equity					
	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
	Number of Shares	\$0.001 Par Value				
Balance, January 1, 2020	94,213,760	\$ 94	\$ 443,129	\$ (413,145)	\$ —	\$ 30,078
Stock-based compensation expense	—	—	891	—	—	891
Issuance of common stock, net of issuance costs	4,816,244	5	3,546	—	—	3,551
Net loss	—	—	—	(5,725)	—	(5,725)
Balance, March 31, 2020	99,030,004	\$ 99	\$ 447,566	\$ (418,870)	\$ —	\$ 28,795
Balance, January 1, 2019	82,323,413	\$ 82	\$ 429,727	\$ (388,274)	\$ (9)	\$ 41,526
Stock-based compensation expense	—	—	754	—	—	754
Exercise of stock options	30,225	—	21	—	—	21
Issuance of warrants to underwriters in connection with equity offering	—	—	347	—	—	347
Issuance of common stock, net of issuance costs	10,000,000	10	8,886	—	—	8,896
Unrealized gain on marketable securities	—	—	—	—	12	12
Net loss	—	—	—	(5,169)	—	(5,169)
Balance, March 31, 2019	92,353,638	\$ 92	\$ 439,735	\$ (393,443)	\$ 3	\$ 46,387

See accompanying notes to financial statements.

TREVENA, INC.

Statements of Cash Flows (Unaudited)
(in thousands)

	Three Months Ended	
	March 31,	
	2020	2019
Operating activities:		
Net loss	\$ (5,725)	\$ (5,169)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	128	149
Stock-based compensation	891	754
Noncash interest expense on loans	8	123
Revaluation of warrant liability	(3)	12
(Accretion) amortization of bond (discount) premium on marketable securities	—	(159)
Change in right-of-use asset	83	—
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	19	(974)
Operating lease liabilities	(144)	—
Accounts payable, accrued expenses and other liabilities	(1,475)	(2,419)
Net cash used in operating activities	(6,218)	(7,683)
Investing activities:		
Maturities of marketable securities	3,500	18,179
Purchases of marketable securities	—	(29,219)
Net cash (used in) provided by investing activities	3,500	(11,040)
Financing activities:		
Proceeds from exercise of common stock options	—	21
Proceeds from issuance of common stock, net	3,551	9,243
Capital lease payments	(2)	(3)
Repayments of loans payable, net	(5,045)	(3,167)
Net cash (used in) provided by financing activities	(1,496)	6,094
Net decrease in cash, cash equivalents and restricted cash	(4,214)	(12,629)
Cash, cash equivalents and restricted cash—beginning of period	33,614	34,195
Cash, cash equivalents and restricted cash—end of period	\$ 29,400	\$ 21,566
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 18	\$ 229
Fair value of common stock warrants issued to underwriters	\$ 347	\$ 347

See accompanying notes to financial statements.

TREVENA, INC.

**Notes to Unaudited Financial Statements
March 31, 2020**

1. Organization and Description of the Business

Trevena, Inc., or the Company, was incorporated in Delaware as Parallax Therapeutics, Inc. on November 9, 2007. The Company began operations in December 2007, and its name was changed to Trevena, Inc. on January 3, 2008. The Company is a biopharmaceutical company focused on the development and commercialization of novel medicines for patients affected by central nervous system, or CNS, disorders. The Company operates in one segment and has its principal office in Chesterbrook, Pennsylvania.

Since commencing operations in 2007, the Company has devoted substantially all of its financial resources and efforts to research and development, including nonclinical studies and clinical trials. The Company has never been profitable and has not yet commenced commercial operations. In November 2018, the U.S. Food and Drug Administration, or FDA, issued a complete response letter, or CRL, with respect to the Company's new drug application, or NDA, for oliceridine. In the CRL, the FDA requested additional clinical data on the QT interval and indicated that the submitted safety database was not of adequate size for the proposed labeling. The FDA also requested certain additional nonclinical data and validation reports. In January 2019, the Company announced the receipt of the official Type A meeting minutes from the FDA regarding the CRL wherein it agreed that the current oliceridine safety database will support labeling at a maximum daily dose of 27 mg. The FDA also agreed that the Company can conduct a study in healthy volunteers to collect the requested QT interval data and that the study should include placebo- and positive-control arms. The Company initiated the healthy volunteer QT study in June 2019 following its receipt of feedback from the FDA on key design elements for the study and analysis plan. In August 2019, the Company announced that it had completed enrollment in the healthy volunteer QT study, completed the nonclinical work to characterize the 9662 metabolite, and completed the remaining product validation reports requested by the FDA. In November 2019, the Company reported topline data from the healthy volunteer QT study. In February 2020, the Company resubmitted the oliceridine NDA and in March 2020, the FDA set a PDUFA goal date of August 7, 2020 for the completion of its review of the NDA.

Since its inception, the Company has incurred losses and negative cash flows from operations. At March 31, 2020, the Company had an accumulated deficit of \$418.9 million. The Company's net loss was \$5.7 million and \$5.2 million for the three months ended March 31, 2020 and 2019, respectively. The Company follows the provisions of Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 205-40, Presentation of Financial Statements—Going Concern, which requires management to assess the Company's ability to continue as a going concern for one year after the date the financial statements are issued. The Company's existing balance of cash and cash equivalents as of March 31, 2020 is not sufficient to fund operations for one year after the date the financial statements are issued. While there is substantial doubt about the Company's ability to continue as a going concern through the year period from the date of this filing, management's plans to mitigate this risk include raising additional capital through equity or debt financings, or through strategic transactions. Management's plans may also include the possible deferral of certain operating expenses unless and until additional capital is received. There can be no assurance that the Company will be successful in raising additional capital or that such capital, if available, will be on terms that are acceptable to the Company, or that the Company will be successful in deferring certain operating expenses, or that the COVID-19 pandemic will not have an impact on the Company's ability to raise capital or fund its operations as planned. If the Company is unable to raise sufficient additional capital or defer sufficient operating expenses, the Company may be compelled to reduce the scope of its operations and planned capital expenditures.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, or GAAP. Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the ASC and Accounting Standards Update, or ASU, of FASB. The Company's functional currency is the U.S. dollar.

The financial statements include all normal and recurring adjustments that are considered necessary for the fair presentation of the Company's balance sheets as of March 31, 2020 and December 31, 2019, its results of operations and its comprehensive loss for the three months ended March 31, 2020 and 2019, its statement of stockholders' equity for the period from January 1, 2020 to March 31, 2020 and for the period January 1, 2019 to March 31, 2019, and its statements of cash flows for the three months ended March 31, 2020 and 2019. The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the financial statements and accompanying notes included in the Company's most recent Annual Report on Form 10-K for the year ended December 31, 2019. Since the date of those financial statements, there have been no changes to the Company's significant accounting policies. The financial data and other information disclosed in these notes related to the three months ended March 31, 2020 and 2019 are not necessarily indicative of the results to be expected for the year ending December 31, 2020, any other interim periods, or any future year or period.

We have been actively monitoring the novel coronavirus ("COVID-19") situation and its impact globally. The financial results for the three months ended March 31, 2020, were not significantly impacted by COVID-19. Remote working arrangements and travel restrictions imposed by various jurisdictions have had limited impact on our ability to maintain operations during the quarter. 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, including as a result of new information that may emerge concerning COVID-19 and the actions taken to contain it or treat COVID-19.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. These estimates and assumptions are based on current facts, historical experience as well as other pertinent industry and regulatory authority information, including the potential future effects of COVID-19, the results of which form the basis for making judgements about the carrying values of assets and liabilities and the recording expenses that are not readily apparent from other sources. Actual results may differ materially and adversely from these estimates. To the extent there are material differences between the estimates and actual results, the Company's future results of operations will be affected.

Fair Value of Financial Instruments

The carrying amount of the Company's financial instruments, which include cash and cash equivalents, marketable securities, restricted cash, accounts payable and accrued expenses approximate their fair values, given their short-term nature. The carrying amount of the Company's loans payable at December 31, 2019 was the nominal value of the loan payable, net of debt discount and deferred charges. The nominal value approximated fair value because the interest rate was reflective of the rate the Company could obtain on debt similar terms and conditions. Certain of the Company's common stock warrants are carried at fair value, as disclosed in Note 3.

Leases

The Company adopted ASU 2016-02, *Leases (Topic 842)*, and all applicable amendments as of January 1, 2019 using a modified retrospective approach. The Company determines if an arrangement is a lease at inception. Operating leases are included in long-term right-of-use assets and current and long-term lease liabilities on our consolidated balance sheets. Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rates, which are the rates incurred to borrow on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment. Lease expense for lease payments is recognized on a straight-line basis over the lease term. The right-of-use assets are tested for impairment according to ASC 360. See Note 6 for details. Leases with an initial term of 12 months or less are not recorded on the balance sheet; we recognize lease expense for these immaterial leases on a straight-line basis over the lease term.

The Company has lease agreements with lease and non-lease components, which are accounted for as a single lease component under the practical expedient provisions of the standard. Lease payments, which may include lease and

non-lease components, are included in the measurement of the Company's lease liabilities to the extent that such payments are either fixed amounts or variable amounts that depend on a rate or index as stipulated in the lease contract.

Revenue

In accordance with FASB's ASC 606, *Revenue from Contracts with Customers*, or ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that the Company determines are within the scope of ASC 606, it performs the following five steps:

- (i) identify the contract(s) with a customer;
- (ii) identify the performance obligations in the contract;
- (iii) determine the transaction price;
- (iv) allocate the transaction price to the performance obligations in the contract; and
- (v) recognize revenue when (or as) the entity satisfies a performance obligation.

The Company applies the five-step model to contracts when it determines that it is probable it will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations, and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Amounts received prior to satisfying the revenue recognition criteria are recognized as deferred revenue in the Company's balance sheet. Amounts expected to be recognized as revenue within the twelve months following the balance sheet date are classified as Current portion of deferred revenue. Amounts not expected to be recognized as revenue within the twelve months following the balance sheet date are classified as Deferred revenue, net of current portion.

License Revenues

The Company's revenues have primarily been generated through licensing arrangements. The terms of these agreements typically include payment to the Company of one or more of the following: nonrefundable, up-front license fees; regulatory and commercial milestone payments; payments for manufacturing supply services; and royalties on net sales of licensed products. See Note 7.

In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under each of its agreements, the Company performs the following steps:

- (i) identification of the promised goods or services in the contract;
- (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract;
- (iii) measurement of the transaction price, including the constraint on variable consideration;
- (iv) allocation of the transaction price to the performance obligations; and
- (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

The Company also assesses whether there is an option in a contract to acquire additional goods or services. An option gives rise to a performance obligation only if the option provides a material right to the customer that it would not

receive without entering into that contract. Factors that the Company considers in evaluating whether an option represents a material right include, but are not limited to: (i) the overall objective of the arrangement, (ii) the benefit the collaborator might obtain from the arrangement without exercising the option, (iii) the cost to exercise the option (e.g. priced at a significant and incremental discount), and (iv) the likelihood that the option will be exercised. With respect to options determined to be performance obligations, the Company recognizes revenue when those future goods or services are transferred or when the options expire.

The Company's revenue arrangements may include the following:

Up-front License Fees: If a license is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from nonrefundable, up-front fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Milestone Payments: At the inception of an agreement that includes regulatory or commercial milestone payments, the Company evaluates whether each milestone is considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. At each reporting period, the Company assesses the probability of achievement of each milestone under its current agreements.

Research and Development Activities: Under the Company's current collaboration and license arrangements, if the Company is entitled to reimbursement for costs for services provided by the Company, it expects such reimbursement would be an offset to research and development expenses.

Royalties: If the Company is entitled to receive sales-based royalties from its collaborator, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, provided the reported sales are reliably measurable, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Manufacturing Supply and Research Services: Arrangements that include a promise for future supply of drug substance or drug product for either clinical development or commercial supply at the licensee's discretion are generally considered as options. The Company assesses if these options provide a material right to the licensee and if so, they are accounted for as separate performance obligations.

The Company receives payments from its licensees based on schedules established in each contract. Upfront payments are recorded as deferred revenue upon receipt, and may require deferral of revenue recognition to a future period until the Company performs its obligations under these arrangements. Amounts are recorded as accounts receivable when the Company's right to consideration is unconditional. The Company does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the licensees and the transfer of the promised goods or services to the licensees will be one year or less.

Income Taxes

Income taxes are recorded in accordance with ASC Topic 740, Income Taxes, or ASC 740, which provides for deferred taxes using an asset and liability approach. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are provided, if based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertain tax positions in accordance with the provisions of ASC 740. When uncertain tax positions exist, the Company recognizes the tax benefit of tax positions to the extent that the benefit will more likely than not be realized. The determination as to whether the tax benefit will more likely than not be realized is based upon the technical merits of the tax position, as well as consideration of the available facts and circumstances. To date, the Company has not taken any uncertain tax position or recorded any reserves, interest or penalties.

On March 27, 2020, the U.S. government enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The CARES Act makes the following changes to the U.S. tax code that will affect 2018, 2019 and 2020, including, but not limited to, (1) temporary modification of the adjusted taxable income limitation under Section 163(j) from 30% to 50% for tax years 2019 and 2020 only; (2) modification to the net operating loss rules surrounding the ability to now carryback five years net operating losses generated in 2018, 2019, and 2020; (3) temporary repeal of the net operating loss taxable income limitation of 80%; and (4) temporary enhancement of corporate charitable contribution limitation to 25% of taxable income for tax year 2020 only. There no impact to Q1 2020 tax provision for these tax law changes.

Recently Adopted Accounting Standards

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*. The new guidance modifies the disclosure requirements related to fair value measurements in Topic 820, *Fair Value Measurement*, including removing certain previous disclosure requirements, adding certain new disclosure requirements, and modifying certain other disclosure requirements. The ASU will be effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The effective date for both standards in January 1, 2020. The Company adopted these standards on January 1, 2020. There was no impact to the Company's financial statements upon the adoption.

Recent Accounting Standards Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, *Simplifying the Accounting for Income Taxes*, which removed certain exceptions to the general principles of the accounting for income taxes and also improves consistent application of and simplification of other areas when accounting for income taxes. The guidance is effective for the Company beginning in the first quarter of fiscal year 2021. Early adoption is permitted. The Company is evaluating the effect this standard will have on its financial statements and related disclosures.

3. Fair Value of Financial Instruments

ASC 820, *Fair Value Measurement*, establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes among the following:

- Level 1-Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access.
- Level 2-Valuations based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and models for which all significant inputs are observable, either directly or indirectly.
- Level 3-Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Cash, Cash Equivalents and Marketable Securities

The following table presents fair value of the Company's cash, cash equivalents, and marketable securities as of March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020						
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Restricted Cash	Marketable Securities
Cash	\$ 8,980	\$ —	\$ —	\$ 8,980	\$ 7,670	\$ 1,310	\$ —
Level 1 (1):							
Money market funds	17,420	—	—	17,420	17,420	—	—
U.S. treasury securities	3,000	—	—	3,000	3,000	—	—
Subtotal	20,420	—	—	20,420	20,420	—	—
Level 2 (2):							
U.S. government agency securities	—	—	—	—	—	—	—
Total	\$ 29,400	\$ —	\$ —	\$ 29,400	\$ 28,090	\$ 1,310	\$ —
	December 31, 2019						
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Restricted Cash	Marketable Securities
Cash	\$ 9,302	\$ —	\$ —	\$ 9,302	\$ 7,993	\$ 1,309	\$ —
Level 1 (1):							
Money market funds	18,306	—	—	18,306	18,306	—	—
U.S. treasury securities	5,996	—	—	5,996	2,496	—	3,500
Subtotal	24,302	—	—	24,302	20,802	—	3,500
Level 2 (2):							
U.S. government agency securities	3,510	—	—	3,510	3,510	—	—
Total	\$ 37,114	\$ —	\$ —	\$ 37,114	\$ 32,305	\$ 1,309	\$ 3,500

- (1) The fair value of Level 1 securities is estimated based on quoted prices in active markets for identical assets or liabilities.
- (2) The fair value of Level 2 securities is estimated based on observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

The Company classifies investments available to fund current operations as current assets on its balance sheets. As of March 31, 2020, the Company did not hold any investment securities exceeding a one-year maturity.

The Company maintains \$1.3 million as collateral under a letter of credit for the Company's facility lease obligations in Chesterbrook, Pennsylvania. The Company has recorded this deposit and accumulated interest thereon as restricted cash on its balance sheet.

Unrealized gains and losses on marketable securities are recorded as a separate component of accumulated other comprehensive income (loss) included in stockholders' equity. Realized gains (losses) are included in interest income (expense) in the statement of operations and comprehensive income (loss) on a specific identification basis. The Company did not record any realized gains or losses during the three months ended March 31, 2020 and 2019. To date, the Company has not recorded any impairment charges on marketable securities related to other-than-temporary declines in market value.

Accretion of bond discount on marketable securities is included in other income as a separate component of other income (expense) on the statement of operations and comprehensive loss. Interest income on marketable securities is recorded as interest income on the statement of operations and comprehensive loss.

The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers between Level 2 and Level 3 during the three months ended March 31, 2020 or the year ended December 31, 2019.

4. Loans Payable

In September 2014, the Company entered into a loan and security agreement with Oxford Finance LLC and Pacific Western Bank (formerly Square 1Bank) (together, the lenders), pursuant to which the lenders agreed to lend the Company up to \$35.0 million in a three-tranche series of term loans (Term Loans A, B, and C). We were required to make payments of interest only on borrowings under the loan agreement on a monthly basis through and including January 1, 2018; payments of principal in equal monthly installments and accrued interest began on January 1, 2018 and continued until the loan matured on March 1, 2020. On March 2, 2020, we made our final payment under the loan and security agreement with Oxford Finance LLC and Pacific Western Bank. Upon the last payment date of the amounts borrowed under the agreement, we were required to pay a final payment fee of \$1.9 million, equal to 6.6% of the aggregate amounts borrowed.

In connection with entering into the agreement, the Company issued to the lenders and the placement agent warrants to purchase an aggregate of 7,678 shares of Trevena's common stock, of which 5,728 shares remain outstanding as of March 31, 2020. These detachable warrant instruments have qualified for equity classification and have been allocated upon the relative fair value of the base instrument and the warrants, according to the guidance of ASC 470-20-25-2. These warrants are exercisable immediately and have an exercise price of \$5.8610 per share. The warrants may be exercised on a cashless basis and will terminate on the earlier of September 19, 2024 or the closing of a merger or consolidation transaction in which the Company is not the surviving entity. In connection with the draw of Term Loan B, the Company issued to the lenders and the placement agent additional warrants to purchase an aggregate of 34,961 shares of Trevena common stock. These warrants have substantially the same terms as those noted above, have an exercise price of \$10.6190 per share and an expiration date of December 23, 2025. In connection with draw of Term Loan C, the Company issued to the lenders and placement agent additional warrants to purchase an aggregate of 62,241 shares of the Company's common stock. These warrants have substantially the same terms as those noted above and have an exercise price of \$3.6150 per share and an expiration date of March 31, 2027. These detachable warrant instruments have qualified for equity classification and have been allocated upon the relative fair value of the base instrument and the warrants, according to the guidance of ASC 470-20-25-2.

As of March 31, 2020, principal borrowings of \$3.2 million attributable to Term Loans A, B, and C, including a final payment fee of \$1.9 million, are fully paid off. Interest expense of \$0.02 million and \$0.2 million was recorded during the three months ended March 31, 2020 and 2019, respectively. The Company incurred lender and third-party costs of \$1.0 million related to the issuance of its term loans. Per ASU 2015-03, *Interest-Imputation of Interest*, debt discount and debt issuance costs are to be presented as a contra-liability to the debt on the balance sheet. These costs were amortized to interest expense over the life of the loans using the effective interest method. Immaterial amounts of debt discount and debt issuance cost were amortized to interest expense during the three months ended March 31, 2020 and 2019, respectively.

The following table summarizes how the issuance of Term Loans A, B, and C are reflected on the balance sheet at March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020	December 31, 2019
Gross proceeds	\$ —	\$ 3,167
Debt discount and debt issuance costs (1)	—	1,870
Carrying value	—	5,037
Current portion of loans payable, net	—	5,037
Loans payable, net	\$ —	\$ —

(1) Includes the final fee payment due upon last payment date of the amounts borrowed.

5. Stockholders' Equity

Equity Offerings

ATM Programs

Under its certificate of incorporation, the Company was authorized to issue up to 200,000,000 shares of common stock as of March 31, 2020. The Company also was authorized to issue up to 5,000,000 shares of preferred stock as of March 31, 2020. The Company is required, at all times, to reserve and keep available out of its authorized but unissued shares of common stock sufficient shares to effect the conversion of the shares of the preferred stock and all outstanding stock options and warrants.

On April 17, 2019, the Company entered into a Common Stock Sales Agreement with H.C. Wainwright & Co., LLC, or Wainwright, pursuant to which the Company may offer and sell through Wainwright, from time to time at the Company's sole discretion, shares of its common stock, having an aggregate offering price of up to \$50.0 million, or the ATM Program. Sales of the shares of common stock are deemed to be "at the market offerings," as defined in Rule 415 under the Securities Act. The Company intends to use the net proceeds from the offering primarily for the development of its lead product candidate, oliceridine, and for general corporate purposes. In the first quarter of 2020, the Company issued and sold approximately 4.8 million shares of common stock under the ATM Program. The net offering proceeds for sales under the ATM Program were approximately \$3.6 million after deducting related expenses, including commissions. As of March 31, 2020, there was \$45.2 million remaining available for future issuances under the ATM Program.

Registered Direct Offering and Concurrent Warrant Issuance

On January 29, 2019, the Company entered into securities purchase agreements with two institutional investors wherein the Company agreed to sell to the investors an aggregate of 10,000,000 shares of its common stock, at an offering price of \$1.00 per share, in a registered direct offering made pursuant to the Company's existing registration statement on Form S-3. The net proceeds to the Company from the offering were approximately \$9.2 million, after deducting fees and the expenses of the placement agent. Pursuant to a letter agreement dated January 28, 2019, the Company engaged H.C. Wainwright & Co., LLC, or Wainwright, to act as its exclusive placement agent in connection with the issuance and sale of the shares. The Company paid Wainwright 7.0% of the aggregate gross proceeds in the offering and \$50,000 for certain expenses, and it issued warrants to purchase 500,000 shares of common stock to certain designees of Wainwright. These warrants have a term of five years, are immediately exercisable and have an exercise price of \$1.25 per share. The warrants are classified as equity and recorded at fair value as of the date of issuance on the Company's Consolidated Balance Sheets and no further adjustments to their valuation are made. The letter agreement also includes indemnification obligations of the Company and other provisions customary for transactions of this nature.

Equity Incentive Plans

In 2008, the Company adopted the 2008 Equity Incentive Plan, as amended on February 29, 2008, January 7, 2010, July 8, 2010, December 10, 2010, June 23, 2011 and June 17, 2013, collectively, the 2008 Plan, that authorized the Company to grant restricted stock and stock options to eligible employees, directors and consultants to the Company.

In 2013, the Company adopted the 2013 Equity Incentive Plan, as amended on May 14, 2014, collectively, 2013 Plan. The 2013 Plan became effective upon the Company's entry into the underwriting agreement related to its IPO in January 2014 and, as of such date, no further grants were permitted under the 2008 Plan. The 2013 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards and other forms of equity compensation (collectively, stock awards), all of which may be granted to employees, including officers, non-employee directors and consultants of the Company. Additionally, the 2013 Plan provides for the grant of cash and stock-based performance awards. The 2013 Plan contains an "evergreen" provision, pursuant to which the number of shares of common stock available for issuance under the plan automatically increases on January 1 of each year beginning in 2015.

On December 15, 2016, the Company adopted the Trevena, Inc. Inducement Plan, or the Inducement Plan, effective January 1, 2017, pursuant to which the Company reserved 500,000 shares of the Company's common stock for issuance under the Inducement Plan. The Plan provides for nonstatutory stock options and restricted stock unit awards.

The only persons eligible to receive grants of awards under the Inducement Plan are individuals who satisfy the standards for inducement grants under Nasdaq Marketplace Rule 5635(c)(4) and the related guidance under Nasdaq IM 5635-1, including individuals who were not previously an employee or director of the Company or are following a bona fide period of non-employment, in each case as an inducement material to such individual's agreement to enter into employment with the Company.

Under all of such plans, the amount, terms of grants and exercisability provisions are determined by the board of directors or its designee. The term of the options may be up to 10 years, and options are exercisable in cash or as otherwise determined by the board of directors. Vesting generally occurs over a period of not greater than four years. For performance-based stock awards, the Company recognizes expense when achievement of the performance factor is probable, over the requisite service period.

The estimated grant-date fair value of the Company's stock-based awards is amortized on a straight-line basis over the awards' service periods. Stock-based compensation expense recognized was as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Research and development	\$ 209	\$ 232
General and administrative	682	522
Total stock-based compensation	\$ 891	\$ 754

Stock Options

A summary of stock option activity and related information through March 31, 2020 follows:

	Options Outstanding		
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)
Balance, December 31, 2019	7,568,304	\$ 3.40	7.01
Granted	230,000	0.80	
Exercised	—	—	
Forfeited/Cancelled	(207,874)	(3.69)	
Balance, March 31, 2020	7,590,430	\$ 3.32	6.94
Vested or expected to vest at March 31, 2020	7,590,430	\$ 3.32	6.94
Exercisable at March 31, 2020	4,812,040	\$ 4.23	6.03

The intrinsic value of the options exercisable as of March 31, 2020 was \$0 because none of the exercisable options had an exercise price that was below the Company's closing stock price at March 31, 2020 of \$0.57 per share. At March 31, 2020, there was \$2.4 million of total unrecognized compensation expense related to unvested options that will be recognized over the weighted average remaining vesting period of 2.03 years.

The Company uses the Black-Scholes option pricing model to estimate the fair value of stock options at the grant date. The Black-Scholes model requires the Company to make certain estimates and assumptions, including estimating the fair value of the Company's common stock, assumptions related to the expected price volatility of the Company's common stock, the period during which the options will be outstanding, the rate of return on risk-free investments and the expected dividend yield for the Company's common stock.

The per-share weighted-average grant date fair value of the options granted to employees and directors during the three months ended March 31, 2020 and 2019 was estimated at \$0.62 and \$1.04 per share, respectively, on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	March 31,	
	2020	2019
Expected term of options (in years)	6.3	6.3
Risk-free interest rate	1.5 %	2.5 %
Expected volatility	95.4 %	75.4 %
Dividend yield	— %	— %

Restricted Stock Units

On December 5, 2019, the Company granted 2,170,585 restricted stock units, or RSUs, to employees. The units vest subject to the satisfaction of service requirements as follows: 50% vest on December 5, 2020, and 50% vest on December 5, 2021. The fair market value per RSU is \$0.72, which is equal to the closing price of the Company's common stock on the date of the grant.

On December 6, 2018, the Company granted 1,255,000 RSUs to employees. The units vest subject to the satisfaction of service requirements as follows: 25% vested on June 1, 2019, 25% vest on December 1, 2019, and the remaining vest on December 6, 2020. The closing price of the Company's common stock on the date of the grant was \$0.64 per share, which is the fair market value per unit of the RSUs.

RSU-related expense is recognized on a straight-line basis over the vesting period. Upon vesting, these awards may be settled on a net-exercise basis to cover any required withholding tax with the remaining amount converted into an equivalent number of shares of common stock.

The following is a summary of changes in the status of non-vested RSUs during the year:

	Number of Awards	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2019	2,945,585	\$ 0.73
Granted	250,000	0.79
Vested	—	—
Forfeited	(118,400)	0.70
Non-vested at March 31, 2020	3,077,185	\$ 0.73

For the three months ended March 31, 2020, the Company recorded \$0.3 million in stock-based compensation expense related to RSUs, which is reflected in the statement of operations.

As of March 31, 2020, there was \$1.9 million of total unrecognized compensation expense related to unvested RSUs that will be recognized over the weighted average remaining period of 1.98 years.

Shares Available for Future Grant

At March 31, 2020, the Company has the following shares available to be granted under its equity incentive plans:

	2013 Plan	Inducement Plan
Available at December 31, 2019	4,394,301	205,000
Authorized	3,768,550	—
Granted	(480,000)	—
Forfeited/Cancelled	302,524	23,750
Available at March 31, 2020	7,985,375	228,750

Shares Reserved for Future Issuance

At March 31, 2020, the Company has reserved the following shares of common stock for issuance:

Stock options outstanding under 2013 Plan	7,319,180
Restricted stock units outstanding under 2013 Plan	3,077,185
Shares reserved for future issuance under 2013 Plan	7,985,375
Stock options outstanding under Inducement Plan	271,250
Shares reserved for future issuance under Inducement Plan	228,750
Shares reserved for future issuance under 2013 Employee Stock Purchase Plan	225,806
Warrants outstanding	623,091
Total shares of common stock reserved for future issuance	<u>19,730,637</u>

6. Commitments and Contingencies**Leases**

The Company leases office space in Chesterbrook, Pennsylvania and equipment. The Company's principal office is located at 955 Chesterbrook Boulevard, Chesterbrook, Pennsylvania, where the Company currently leases approximately 8,231 square feet of developed office space on the first floor and 40,565 square feet of developed office space on the second floor. The lease term for this space extends through May 2028. On October 11, 2018, the Company entered into an agreement with The Vanguard Group, Inc., or Vanguard, whereby Vanguard agreed to sublease the 40,565 square feet of space on the second floor for an initial term of 37 months. Vanguard has an option to extend the sublease term for 3 years, and a second option to extend the sublease until November 30, 2027. The sublease provides for rent abatement for the first month of the term; thereafter, the rent payable to the Company by Vanguard under the sublease is (i) \$0.50 less during months 2 through 13 of the sublease and (ii) in month 14 and thereafter of the sublease, \$1.00 less than the base rent payable by the Company under its master lease with Chesterbrook Partners, L.P. Vanguard also is responsible for paying to the Company all tenant energy costs, annual operating costs, and annual tax costs attributable to the subleased space during the term of the sublease. Rent expense and associated sublease income are recorded in the Company's statements of operations and comprehensive loss as other income (expense).

In October 2017, the Company terminated its lease related to vivarium space in Exton, Pennsylvania, under an agreement expiring on December 31, 2018. The Company incurred termination fees equivalent to three months' rent, totaling less than \$0.1 million, in relation to the early termination of this agreement. Additionally, in November 2017, the Company provided notice of its intent to terminate its facility lease of approximately 16,714 square feet of office and laboratory space in King of Prussia, Pennsylvania, under an agreement that expires in September 2020. The Company paid the landlord a \$0.15 million termination fee on the date the Company exercised the termination option. This lease was deemed terminated on August 15, 2018.

Supplemental balance sheet information related to leases was as follows (in thousands):

	March 31, 2020	December 31, 2019
Operating leases:		
Operating lease right-of-use assets	\$ 5,389	\$ 5,472
Other current liabilities	632	611
Operating lease liabilities	7,627	7,793
Total operating lease liabilities	<u>\$ 8,259</u>	<u>\$ 8,404</u>
Finance leases:		
Property and equipment, at cost	\$ 45	\$ 45
Accumulated depreciation	(27)	(25)
Property and equipment, net	18	20
Other current liabilities	9	9
Other long-term liabilities	9	11
Total finance lease liabilities	<u>\$ 18</u>	<u>\$ 20</u>

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

	Three Months Ended	
	March 31,	
	2020	2019
Operating lease costs:		
Operating lease rental expense	\$ 328	\$ 306
Other income	(299)	(328)
Total operating lease costs	<u>\$ 29</u>	<u>\$ (22)</u>
Finance lease costs:		
Amortization of right-of-use assets	2	3
Interest on lease liabilities	—	1
Total finance lease costs	<u>\$ 2</u>	<u>\$ 4</u>

Supplemental cash flow information related to leases was as follows (in thousands):

	Three Months Ended	
	March 31,	
	2020	2019
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$ (121)	\$ (22)
Operating cash flows from finance leases	—	—
Financing cash flows from finance leases	(2)	(3)

Our operating lease liabilities will mature, as follows (in thousands):

	Operating Leases	Financing Leases
2020 (April 1 - December 31)	\$ 1,017	\$ 8
2021	1,376	8
2022	1,401	4
2023	1,425	—
2024	1,450	—
2025 and beyond	5,136	—
Total minimum lease payments	\$ 11,805	\$ 20
Interest Expense	(3,546)	(2)
Lease liability	\$ 8,259	\$ 18

Per the terms of our sublease, we expect the following inflows (in thousands):

	Sublease
2020 (April 1 - December 31)	\$ 809
2021	943
2022	—
2023	—
2024	—
2025 and beyond	—
Total minimum lease payments	\$ 1,752

Lease term and discount rates are as follows:

	Three Months Ended	
	March 31,	
	2020	2019
Weighted average remaining lease term (years)		
Operating leases	8	10
Finance leases	2	2
Weighted average discount rate		
Operating leases	9.2%	9.2%
Finance leases	6.5%	6.5%

Legal Proceedings

In October and November 2018, the Company and certain current and former officers and directors were sued in three purported class actions filed in the U.S. District Court for the Eastern District of Pennsylvania, or the EDPA, alleging violations of the federal securities laws. In January 2019, the three lawsuits were consolidated into one action, and on May 29, 2019, the District Court appointed a group of five individual investors as lead plaintiffs. A consolidated amended complaint was filed on August 2, 2019, alleging, among other things, that the Company and two former officers made false and misleading statements regarding the Company's business, operations, and prospects, including certain statements made relating to the Company's End-of-Phase 2 meeting with the FDA, and certain statements concerning top-line results from the Company's Phase 3 studies. The plaintiffs seek, among other remedies, unspecified damages, attorneys' fees and other costs, and unspecified equitable or injunctive relief. The Company believes that the claims are without merit, and the Company intends to vigorously defend itself against the allegations. On October 2, 2019, the Company moved to dismiss the consolidated amended complaint on the basis that there were no false statements and no scienter as a matter of law.

In December 2018, a shareholder derivative action was filed on behalf of the Company and against certain current and former officers and directors in the EDPA, and in February 2019, two additional, similar shareholder derivative actions were filed in the U.S. District Court for the District of Delaware. A fourth similar shareholder derivative action was filed in the EDPA in September 2019, and a fifth, similar derivative action was filed in the EDPA

in November 2019. These cases, which involve facts similar to the consolidated securities lawsuits, assert claims against the individual defendants for, among other things, breach of fiduciary duty, waste of corporate assets, violations of the federal securities laws, and unjust enrichment, and they make a number of demands, including for monetary damages and other equitable and injunctive relief. The derivative actions have been stayed in favor of the consolidated securities lawsuits.

7. Licensing Arrangements

License and Commercialization Agreement with Pharmbio Korea Inc.

In April 2018, the Company entered into an exclusive license agreement with Pharmbio Korea Inc., or Pharmbio, for the development and commercialization of oliceridine for the management of moderate to severe acute pain in South Korea. Under the terms of the agreement, the Company received an upfront, non-refundable cash payment of \$3.0 million (less applicable withholding taxes of \$0.5 million) in June 2018, and will receive a cash commercial milestone of up to \$0.5 million if oliceridine is approved in South Korea and tiered royalties on product sales in South Korea ranging from high single digits to 20%, less applicable withholding taxes. As part of the agreement, the Company also granted Pharmbio an option to manufacture oliceridine, on a non-exclusive basis, for the development and commercialization of the product in South Korea, subject to a separate arrangement to be entered into if Pharmbio exercises the option. The license agreement is terminable by Pharmbio for any reason upon 180 days written notice.

In accordance with the terms of the agreement, Pharmbio is solely responsible for all development and regulatory activities in South Korea. The parties have formed a Joint Development Committee with equal representation from the Company and Pharmbio to provide overall coordination and oversight of the development of oliceridine in South Korea. The parties also agreed to form a Joint Manufacturing and Commercialization Committee at least six months prior to the anticipated date of regulatory approval of oliceridine in South Korea to provide overall coordination and oversight of the manufacture and commercialization of oliceridine in South Korea.

License Agreement with Jiangsu Nwha Pharmaceutical Co. Ltd.

In April 2018, the Company also entered into an exclusive license agreement with Jiangsu Nwha Pharmaceutical Co. Ltd., or Nwha, for the development and commercialization of oliceridine for the management of moderate to severe acute pain in China. Under the terms of this agreement, the Company received an upfront, non-refundable cash payment of \$2.5 million (less applicable withholding taxes of \$0.3 million) in July 2018, and is eligible to receive cash milestone payments of \$3.0 million, which is subject to Chinese withholding taxes, upon regulatory approval of oliceridine in each of the United States and China, up to an additional \$6.0 million of commercialization milestones based on product sales levels in China, and a ten percent royalty on all net product sales in China, less applicable withholding taxes. As part of the agreement, the Company also granted Nwha an option to manufacture oliceridine, on an exclusive basis in China, for the development and commercialization of the product in China. In the second quarter of 2018, Nwha elected to exercise this manufacturing option and the Company and Nwha expect to enter into a separate agreement. The license agreement is terminable by Nwha for any reason upon 180 days written notice.

In accordance with the terms of the agreement, Nwha is solely responsible for all development and regulatory activities in China. The parties have formed a Joint Development Committee with equal representation from the Company and Nwha to provide overall coordination and oversight of the development of oliceridine in China. The parties also agreed to form a Joint Manufacturing and Commercialization Committee at least six months prior to the anticipated date of regulatory approval of oliceridine in China to provide overall coordination and oversight of the manufacture and commercialization of oliceridine in China.

8. Net Loss Per Common Share

The following table sets forth the computation of basic and diluted net loss per share for the periods indicated (in thousands, except share and per share data):

	Three Months Ended March 31,	
	2020	2019
Basic and diluted net loss per common share calculation:		
Net loss	\$ (5,725)	\$ (5,169)
Net loss attributable to common stockholders	\$ (5,725)	\$ (5,169)
Weighted average common shares outstanding	96,332,324	88,897,292
Net loss per share of common stock - basic and diluted	\$ (0.06)	\$ (0.06)

The following outstanding securities at March 31, 2019 and 2018 have been excluded from the computation of diluted weighted shares outstanding, as they would have been anti-dilutive:

	March 31,	
	2020	2019
Options outstanding	7,590,430	7,039,119
RSUs outstanding	3,077,185	1,240,000
Warrants	623,091	623,091
Total	11,290,706	8,902,210

9. Other Comprehensive Loss

The following table presents changes in the components of accumulated other comprehensive loss (in thousands):

Balance, January 1, 2019	\$ (9)
Net unrealized loss arising during the period	9
Balance, December 31, 2019	\$ —
Net unrealized gain on marketable securities	—
Balance, March 31, 2020	\$ —

There were no reclassifications out of accumulated other comprehensive loss during the three months ended March 31, 2020 and 2019. There was no tax effect during the three months ended March 31, 2020 and 2019.

10. Restructuring Charges

On November 8, 2018, upon the approval of the Company's Board of Directors, the Company announced a restructuring of approximately one-third of the Company's workforce, or 14 employees, as well as other cost-saving initiatives intended to lower the Company's annualized net operating cash burn. The Company completed the restructuring on December 31, 2018. The Company determined that the total costs related to the restructuring were approximately \$1.4 million, all of which resulted in future cash outlays, primarily related to severance costs and benefit-related expenses. The Company recorded these charges in the fourth quarter of 2018.

The following table summarizes the restructuring balances at March 31, 2020 and 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
Balance, January 1	\$ —	\$ 1,419
Current year restructuring costs	—	—
Payment of employee severance costs	—	(1,084)
Balance, March 31	\$ —	\$ 335

11. Subsequent Events

None.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and related notes that appear in Item 1 of this Quarterly Report on Form 10-Q and with our audited financial statements and related notes for the year ended December 31, 2019, which are included in our [Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 13, 2020](#). Unless the context otherwise requires, we use the terms "Trevena," "Company," "we," "us" and "our" to refer to Trevena, Inc.

Overview

Using our proprietary product platform, we have identified and are developing the following product candidates:

- **Oliceridine injection:** We are developing oliceridine, a G-protein biased mu-opioid receptor, or MOR, ligand, for the management of moderate-to-severe acute pain in hospitals or other controlled clinical settings where intravenous, or IV, administration of opioids is warranted. We have completed two pivotal Phase 3 efficacy studies (APOLLO 1 and APOLLO 2) of oliceridine in moderate-to-severe acute pain following bunionectomy and abdominoplasty, respectively. In both studies, all dose regimens achieved their primary endpoint of statistically greater analgesic efficacy than placebo, as measured by responder rate. We also have completed a Phase 3 open label safety study (ATHENA) in which 768 patients were administered oliceridine to manage pain associated with a wide range of procedures and diagnoses. In late 2017, we submitted the oliceridine new drug application, or NDA, to the United States Food and Drug Administration, or FDA. On November 2, 2018, the FDA issued a complete response letter, or CRL, with respect to our NDA for oliceridine. In the CRL, the FDA requested additional clinical data on the QT interval and indicated that the submitted safety database was not of adequate size for the proposed labeling. The FDA also requested certain additional nonclinical data and validation reports. On January 28, 2019, we announced the receipt of the official Type A meeting minutes from the FDA regarding the CRL wherein the FDA agreed that our current safety database will support labeling at a maximum daily dose of 27 mg. The FDA also agreed that we can conduct a study in healthy volunteers to collect the requested QT interval data and that the study should include placebo- and positive-control arms. We initiated the healthy volunteer QT study in June 2019 following our receipt of feedback from the FDA on key design elements for the study and analysis plan. In August 2019, we announced that we had completed enrollment in the healthy volunteer QT study, completed the nonclinical work to characterize the 9662 metabolite, and completed the remaining method validation report requested by the FDA. In November 2019, we reported topline data from the healthy volunteer QT study. In February 2020, we resubmitted the oliceridine NDA. Our resubmission package included data from the healthy volunteer QT study, nonclinical data that confirmed levels of the 9662 metabolite, and drug product validation reports. In the acknowledgment letter, the FDA stated that our resubmission was a complete, class 2 response to the CRL. As a result, the FDA set a PDUFA goal date of August 7, 2020 for the completion of its review of the NDA.
- **TRV250:** We are developing TRV250, a G-protein biased delta-opioid receptor, or DOR, agonist as a compound with a potential first-in-class novel mechanism for the treatment of acute migraine. TRV250 also may have utility in a range of other central nervous system, or CNS, indications. Because TRV250 selectively targets the DOR, we believe it will not have the addiction liability of conventional opioids or have other mu-opioid related adverse effects like respiratory depression and constipation. In June 2018, we announced the completion of our first-in-human Phase 1 study of TRV250. Data from this healthy volunteer study showed a favorable tolerability profile and pharmacokinetics supporting the advancement of TRV250 to proof-of-concept evaluation in patients, which we initiated in November 2019. This single-dose double-blind, placebo-controlled clinical study will enroll approximately 120 subjects with a history of migraine attacks. Intravenous nitroglycerin will be administered to all subjects to attempt to induce a sustained, migraine-type headache. Shortly after the nitroglycerin infusion, subjects will receive either a 20 mg subcutaneous dose of TRV250 or placebo at a fixed time point and will be monitored in a hospital setting for 24 hours. Target engagement will be determined by the reduction in the number of subjects who experience a sustained nitroglycerin-induced headache. On March 26, 2020, we announced that due to the global COVID-19 pandemic, enrollment has been paused in this trial.

TRV734: We also have identified and have completed the initial Phase 1 studies for TRV734, a new chemical entity, or NCE, targeting the same novel mechanism of action at the MOR as oliceridine. TRV734 was designed to be orally available, and its mechanism of action suggests it may offer valuable benefits for two distinct areas of important unmet medical need: acute and chronic pain, and maintenance-assisted therapy for patients with opioid use disorder, or OUD. We are collaborating with the National Institute on Drug Abuse, or NIDA, to further evaluate TRV734 for the management of OUD, and NIDA initiated a proof-of-concept study for this indication in December 2019. On March 26, 2020, we announced that due to the global COVID-19 pandemic, enrollment has been paused in this trial. We intend to continue to focus our efforts for TRV734 on securing a development and commercialization partner for this asset.

TRV045: We are evaluating a set of novel SIP modulators that may offer a new, non-opioid approach to managing chronic pain. In the fourth quarter of 2018, we identified a new product candidate, TRV045, a novel SIP modulator that we believe may offer a new, non-opioid approach to managing chronic pain. In the second quarter of 2019, we initiated investigational new drug, or IND, enabling work, and we will continue to evaluate the progression of this asset to an IND, either by ourselves or with a partner. In March 2020, the Company announced it entered into a collaboration with the U.S. National Institutes of Health (NIH) to evaluate the potential of TRV045 as a treatment for epilepsy. NIH is assessing TRV045 within its Epilepsy Therapy Screening Program (“ETSP”). Due to the global COVID-19 pandemic, the ETSP has paused its screening of TRV045.

Since our incorporation in late 2007, our operations have included organizing and staffing our company, business planning, raising capital, and discovering and developing our product candidates. We have financed our operations primarily through private placements and public offerings of our equity securities and debt borrowings. As of March 31, 2020, we had an accumulated deficit of \$418.9 million. Our net loss was \$5.7 million and \$5.2 million for the three months ended March 31, 2020 and 2019, respectively. Our ability to become and remain profitable depends on our ability to generate revenue or sales. We do not expect to generate significant revenue or sales unless and until we or a collaborator obtain marketing approval for and commercialize oliceridine, TRV250, TRV734, or TRV045.

We expect to incur significant expenses and operating losses for the foreseeable future as we continue the development and clinical trials of, seek regulatory approval for, and prepare for commercialization of our product candidates. To secure approval of oliceridine, we may be required to conduct additional clinical studies. The amount and timing of such studies are unknown. We will need to obtain substantial additional funding in connection with our continuing operations. We will seek to fund our operations through the sale of equity, debt financings or other sources, including potential collaborations. However, we may be unable to raise additional funds or enter into such other agreements when needed on favorable terms, or at all. If we fail to raise capital or enter into such other arrangements as, and when, needed, we may have to significantly delay, scale back or discontinue our operations, development programs, and/or any future commercialization efforts.

Recent Developments

TRV250 Acute Migraine Proof-of-Concept Study

On November 4, 2019, the Company announced that it initiated a proof-of-concept study of TRV250 for the treatment of patients with acute migraine. This is a single-dose, double-blind, placebo-controlled study with an enrollment target of approximately 120 patients with acute migraine in a validated nitroglycerin (“NTG”) provocation migraine model. Patients will be randomized before receiving a continuous NTG infusion, followed by administration of a 20 mg subcutaneous dose of TRV250 or placebo.

The primary objective of the study is to determine target engagement, which will be measured as a reduction of sustained NTG-induced headaches. This study will also evaluate the ability of TRV250 to reduce symptomatic anxiety, as well as the safety of TRV250.

On March 26, 2020, the Company announced that enrollment has been paused on the study due to the global COVID-19 pandemic.

TRV734 Opioid Use Disorder Proof-of-Concept Study

On December 23, 2019, the Company announced that it initiated a proof-of-concept study of TRV734 as a potential maintenance therapy for opioid use disorder. This is a randomized, double-blind, four-period, placebo- and positive-controlled study that will enroll approximately 50 opioid-dependent patients undergoing stable methadone maintenance therapy. The study is funded by the National Institute on Drug Abuse (NIDA), part of the National Institutes of Health. Trevena is providing TRV734 to NIDA Intramural Research Program scientists who are conducting the study.

The primary objective of the study is to assess the ability of TRV734 to reduce acute opioid craving symptoms, as measured by the Subjective Opioid Withdrawal Scale. The study will also evaluate whether TRV734 suppresses withdrawal signs using the Clinical Opioid Withdrawal Scale. Secondary outcomes will include assessments of safety and measures of neurocognitive changes.

On March 26, 2020, the Company announced that enrollment has been paused on the study due to the global COVID-19 pandemic.

TRV045 Epilepsy Screening

In March 2020, the Company announced it entered into a collaboration with the U.S. National Institutes of Health (NIH) to evaluate the potential of TRV045 as a treatment for epilepsy. NIH is assessing TRV045 within its Epilepsy Therapy Screening Program (“ETSP”). Due to the global COVID-19 pandemic, the ETSP has paused its screening of TRV045.

Resubmission of NDA

In February 2020, we resubmitted the NDA for oliceridine based on the topline data from the healthy volunteer QT study and the final minutes of the Type A meeting with the FDA. Our resubmission package included data from the healthy volunteer QT study, nonclinical data that confirmed levels of the 9662 metabolite, and drug product validation reports. The resubmission package also specified a maximum daily dose of 27 mg, as previously acknowledged by the FDA in the Type A meeting minutes. In the acknowledgment letter, the FDA stated that our resubmission was a complete, class 2 response to the CRL. As a result, the FDA set a PDUFA goal date of August 7, 2020 for the completion of its review of the NDA.

Transfer to Nasdaq Capital Market

On March 4, 2020, we transferred the listing of our common stock to the Nasdaq Capital Market, in order to become eligible for an additional 180-day compliance period provided with respect to the minimum bid price requirement. To be eligible for the extension, we also provided written notice of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary. Our common stock continues to trade under the symbol “TRVN.” On March 3, 2020, we received notice from Nasdaq that we were granted an additional 180 days, or until August 31, 2020, to regain compliance with the minimum price requirement. On April 17, 2020, we received notification from the Listing Qualifications Department of the Nasdaq Stock Market advising us that due to the impact of COVID-19 on global markets, the date to regain compliance with the minimum price requirements has been extended until November 13, 2020.

Appointment of Executive Officer

On February 10, 2020, our board of directors appointed Scott Applebaum as our Chief Legal and Compliance Officer and Senior Vice President of Regulatory Affairs. Mr. Applebaum comes to the Company with over 20 years of experience in a variety of senior leadership roles at both large and small companies at various stages of development and commercialization in the biopharmaceuticals sector.

Litigation

In October and November 2018, we and certain of our current and former officers and directors were sued in three purported class actions filed in the U.S. District Court for the Eastern District of Pennsylvania, or the EDPA, alleging violations of the federal securities laws. In January 2019, the three lawsuits were consolidated into one action, and on May 29, 2019, the District Court appointed a group of five individual investors as lead plaintiffs. A consolidated amended complaint was filed on August 2, 2019, alleging, among other things, that we and two of our former officers made false and misleading statements regarding our business, operations, and prospects, including certain statements made relating to our End-of-Phase 2 meeting with the FDA, and certain statements concerning top-line results from our Phase 3 studies. The plaintiffs seek, among other remedies, unspecified damages, attorneys' fees and other costs, and unspecified equitable or injunctive relief. We believe that the claims are without merit, and we intend to vigorously defend ourselves against the allegations. On October 2, 2019, we moved to dismiss the consolidated amended complaint on the basis that there were no false statements and no scienter as a matter of law.

In December 2018, a shareholder derivative action was filed on behalf of the Company and against certain current and former officers and directors in the EDPA, and in February 2019, two additional, similar shareholder derivative actions were filed in the U.S. District Court for the District of Delaware. A fourth similar shareholder derivative action was filed in the EDPA in September 2019, and a fifth similar derivative action was filed in the EDPA in November 2019. These cases, which involve facts similar to the consolidated securities lawsuits, assert claims against the individual defendants for, among other things, breach of fiduciary duty, waste of corporate assets, violations of the federal securities laws, and unjust enrichment, and they make a number of demands, including for monetary damages and other equitable and injunctive relief. The derivative actions have been stayed in favor of the consolidated securities lawsuits.

ATM Program

On April 17, 2019, we entered into a Common Stock Sales Agreement with H.C. Wainwright & Co., LLC, or Wainwright, as sales agent and/or principal, pursuant to which we may offer and sell through Wainwright, from time to time at our sole discretion, shares of our common stock, having an aggregate offering price of up to \$50.0 million, or the ATM Program. Sales of the shares of common stock are deemed to be "at the market offerings," as defined in Rule 415 under the Securities Act of 1933, as amended. We intend to use the net proceeds from the offering primarily for the development of our lead product candidate, oliceridine, and for general corporate purposes. For quarter ended March 31, 2020, the net offering proceeds to the Company for sales under the ATM Program were approximately \$3.6 million after deducting related expenses, including commission. As of March 31, 2020, there was \$45.2 million remaining available for future issuances under the ATM Program.

COVID-19

The impact of the COVID-19 pandemic on the global economy and on our business continues to be a fluid situation. We responded quickly across our organization to guard the health and safety of our team and participants in our clinical trials, support our partners and vendors and mitigate risk. After careful review of our operations, while the ongoing and developing circumstances related to the COVID-19 pandemic remain uncertain, we believe that we are well positioned to address challenges related to the COVID-19 pandemic and to continue to advance our clinical programs. Thus far, our employees have rapidly adapted to working remotely and we are monitoring the COVID-19 pandemic on a daily basis to ensure we have all necessary plans in place for mitigating disruptions in our operations, including our clinical programs. Like other companies, our clinical trials have experienced some degree of disruption due to access limitations to institutions currently impacted, and we may need to make further adjustments to clinical trials in the future to comply with evolving FDA guidance or otherwise.

We continue to proactively assess, monitor and respond to domestic and international developments related to the COVID-19 pandemic, and we will implement risk-mitigation plans as needed to minimize the impact on our clinical trials and business operations. In addition, we have taken steps to protect the health and welfare of our employees by temporarily closing our offices and suspending business-related travel.

Senior Secured Tranched Term Loan Credit Facility

In September 2014, the Company entered into a loan and security agreement with Oxford Finance LLC and Pacific Western Bank (formerly Square 1Bank) (together, the lenders), pursuant to which the lenders agreed to lend the Company up to \$35.0 million in a three-tranche series of term loans (Term Loans A, B, and C). We were required to make payments of interest only on borrowings under the loan agreement on a monthly basis through and including January 1, 2018; payments of principal in equal monthly installments and accrued interest began on January 1, 2018 and continued until the loan matured on March 1, 2020. On March 2, 2020, we made our final payment under the loan and security agreement with Oxford Finance LLC and Pacific Western Bank. Upon the last payment date of the amounts borrowed under the agreement, we were required to pay a final payment fee of \$1.9 million, equal to 6.6% of the aggregate amounts borrowed.

In connection with entering into the agreement, the Company issued to the lenders and the placement agent warrants to purchase an aggregate of 7,678 shares of Trevena's common stock, of which 5,728 shares remain outstanding as of March 31, 2020. These detachable warrant instruments have qualified for equity classification and have been allocated upon the relative fair value of the base instrument and the warrants, according to the guidance of ASC 470-20-25-2. These warrants are exercisable immediately and have an exercise price of \$5.8610 per share. The warrants may be exercised on a cashless basis and will terminate on the earlier of September 19, 2024 or the closing of a merger or consolidation transaction in which the Company is not the surviving entity. In connection with the draw of Term Loan B, the Company issued to the lenders and the placement agent additional warrants to purchase an aggregate of 34,961 shares of Trevena common stock. These warrants have substantially the same terms as those noted above, have an exercise price of \$10.6190 per share and an expiration date of December 23, 2025. In connection with draw of Term Loan C, the Company issued to the lenders and placement agent additional warrants to purchase an aggregate of 62,241 shares of the Company's common stock. These warrants have substantially the same terms as those noted above and have an exercise price of \$3.6150 per share and an expiration date of March 31, 2027. These detachable warrant instruments have qualified for equity classification and have been allocated upon the relative fair value of the base instrument and the warrants, according to the guidance of ASC 470-20-25-2.

Critical Accounting Policies and Significant Judgments and Estimates

The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of our financial statements, as well as the reported revenues and expenses during the reported periods. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

A summary of our significant accounting policies appears in the notes to our audited consolidated financial statements for the year ended December 31, 2019 included in our Annual Report on Form 10-K. However, we believe that the following accounting policies are important to understanding and evaluating our reported financial results, and we have accordingly included them in this discussion.

Stock-Based Compensation

We have applied the fair value recognition provisions of Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation — Stock Compensation*, or ASC 718, to account for stock-based compensation for employees. We recognize compensation costs related to stock options granted to employees based on the estimated fair value of the awards on the date of grant.

We have equity incentive plans under which various types of equity-based awards including, but not limited to, incentive stock options, non-qualified stock options, and restricted stock unit awards, may be granted to employees, non-employee directors, and non-employee consultants. We also have an inducement plan under which various types of equity-based awards, including non-qualified stock options and restricted stock unit awards, may be granted to new employees.

For stock options granted to employees and directors, we recognize compensation expense for all stock-based awards based on the estimated grant-date fair values. For restricted stock unit awards to employees, the fair value is based on the closing price of our common stock on the date of grant. The value of the portion of the award that is ultimately expected to vest is recognized as expense on a straight-line basis over the requisite service period. The fair value of stock options is determined using the Black-Scholes option pricing model. We utilize a dividend yield of zero based on the fact that we have never paid cash dividends and have no current intention of paying cash dividends. In connection with the early adoption of ASU 2016-09 in the quarter ended December 31, 2016, we elected an accounting policy to record forfeitures as they occur.

See Note 5, included in Part 1, Item 1 of this Quarterly Report on Form 10-Q, for a discussion of the assumptions we used in determining the grant date fair value of options granted under the Black-Scholes option pricing model, as well as a summary of the stock option activity under our stock-based compensation plan for all years presented.

Recent Accounting Pronouncements

See Note 2, included in Part 1, Item 1 of this Quarterly Report on Form 10-Q for information on recent accounting pronouncements.

Results of Operations

Comparison of the three months ended March 31, 2020 and 2019 (in thousands)

	Three Months Ended		
	2020	2019	Change
Revenue:			
License revenue	\$ —	\$ —	\$ —
Operating expenses:			
General and administrative	3,632	3,060	572
Research and development	2,191	2,154	37
Total operating expenses	5,823	5,214	609
Loss from operations	(5,823)	(5,214)	(609)
Other income (expense):			
Change in fair value of warrant liability	3	(12)	15
Other income, net	69	257	(188)
Interest income	52	153	(101)
Interest expense	(29)	(353)	324
Gain on foreign currency exchange	3	—	3
Total other income	98	45	53
Loss before income tax expense	(5,725)	(5,169)	(556)
Income tax expense	—	—	—
Net loss attributable to common stockholders	\$ (5,725)	\$ (5,169)	\$ (556)

General and administrative expense

General and administrative expenses consist principally of salaries and related costs for personnel in our executive, finance, commercial, and other administrative areas, including expenses associated with stock-based compensation and travel. Other general and administrative expenses include professional fees for legal, market research, consulting, and accounting services.

General and administrative expenses increased by \$0.6 million, or 19% for the three months ended March 31, 2020, as compared to the same period in 2019, primarily related to an increase in market research and an increase in accounting and insurance related costs.

Research and development expense

Research and development expenses consist primarily of costs incurred for research and the development of our product candidates, including costs associated with the regulatory approval process. In addition, research and development expenses include salaries and related costs for our research and development personnel and stock-based compensation expense and travel expenses for such individuals.

Research and development costs are expensed as incurred and are tracked by discovery program and subsequently by product candidate once a product candidate has been selected for development. We record costs for some development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided to us by our vendors.

Research and development expenses increased by \$0.04 million, or 2%, for the three months ended March 31, 2020, as compared to the same period in 2019. The following table summarizes our research and development expenses (in thousands):

	Three Months Ended	
	March 31,	
	2020	2019
Personnel-related costs	\$ 1,424	\$ 1,545
Oliceridine	135	571
TRV027	5	—
TRV250	415	19
Other research and development	212	19
	<u>\$ 2,191</u>	<u>\$ 2,154</u>

The higher research and development expenses incurred during the three months ended March 31, 2020, compared to the same period in 2019 were the result of expenditures on the TRV250 clinical study as well as activities to support the regulatory resubmission of oliceridine.

Total other income

Total other income, net increased by \$0.05 million for the three months ended March 31, 2020, as compared to the same periods in 2019, primarily related to lower interest expense due to repayment of loan in March 31, 2000, partially offset by lower bond accretion.

Liquidity and Capital Resources

Since inception, we have financed our operations primarily through private placements and public offerings of our equity securities, debt borrowings and payments received under collaboration agreements. At March 31, 2020, we had an accumulated deficit of \$418.9 million, working capital of \$27.1 million, cash and cash equivalents of \$28.1 million, and restricted cash of \$1.3 million.

Cash Flows

The following table summarizes our cash flows for the three months ended March 31, 2020 and 2019 (in thousands):

	March 31,	
	2020	2019
Net cash (used in) provided by:		
Operating activities	\$ (6,218)	\$ (7,683)
Investing activities	3,500	(11,040)
Financing activities	(1,496)	6,094
Net decrease in cash, cash equivalents and restricted cash	<u>\$ (4,214)</u>	<u>\$ (12,629)</u>

Net cash used in operating activities

Net cash used in operating activities was \$6.2 million for the three months ended March 31, 2020 and consisted primarily of a net loss of \$5.7 million and changes in operating assets and liabilities. Changes in prepaid expenses and other assets, accounts payable and accrued expenses result from timing differences between the receipt and payment of cash and when the transactions are recognized in our results of operations.

Net cash used in operating activities was \$7.7 million for the three months ended March 31, 2019 and consisted primarily of a net loss of \$5.2 million and changes in operating assets and liabilities. Changes in prepaid expenses and other assets, accounts payable and accrued expenses result from timing differences between the receipt and payment of cash and when the transactions are recognized in our results of operations.

Net cash (used in) provided by investing activities

Net cash provided by investing activities was \$3.5 million for the three months ended March 31, 2020, and net cash used in investing activities was \$11.0 million for the three months ended March 31, 2019. Investing activities in both years consisted primarily of purchases and maturities of marketable securities.

Net cash (used in) provided by financing activities

Net cash used in financing activities was \$1.5 million for the three months ended March 31, 2020, which was primarily due to principal repayments on our Term Loans of \$3.2 million, including a final fee payment of \$1.9 million offset by the net proceeds of \$3.6 million from the ATM Program.

Net cash provided by financing activities was \$6.1 million for the three months ended March 31, 2019, which was primarily due to net proceeds of \$9.2 million from the sale of common stock through our at-the-market, or ATM, sales facility with Cowen and Company, LLC, or Cowen, offset by principal repayments on our Term Loans of \$3.2 million.

Operating and Capital Expenditure Requirements

We have not achieved profitability since our inception and we expect to continue to incur net losses and negative cash flows from operations for the foreseeable future. We expect our cash expenditures to continue to be significant in the near term as we seek to address the items in the Oliceridine CRL, continuing clinical development of TRV250, and continuing IND-enabling work for TRV045. Over the next twelve months, we anticipate that our total operating expenses will increase compared to the previous twelve months.

We believe that our cash and cash equivalents as of March 31, 2020, together with interest thereon, will be sufficient to fund our operating expenses, and capital expenditure requirements into the first quarter of 2021. As a result, there is substantial doubt about our ability to continue as a going concern through the year period from the date of this filing. Our anticipated operating expenses involve significant risks and uncertainties and are dependent on our current assessment of the extent and costs of activities required to address the comments in the Oliceridine CRL. In the future, we anticipate that we will need to raise substantial additional financing to fund our operations. To meet these requirements, we may seek to sell equity or convertible securities in public or private transactions that may result in significant dilution to our stockholders. In February 2019, we issued 10,000,000 shares of our common stock, at an offering price of \$1.00 per share, in a registered direct offering. In June 2018, we filed a \$175.0 million shelf registration statement, which includes the \$50.0 million HCW ATM Program, of which there was approximately \$45.2 million of available capacity as of March 31, 2020. We may offer and sell shares of our common stock under the existing registration statement or any registration statement we may file in the future. If we raise additional funds through the issuance of convertible securities, these securities could have rights senior to those of our common stock and could contain covenants that restrict our operations.

Ultimately, there can be no assurance that we will be able to obtain additional equity or debt financing on terms acceptable to us, if at all. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of researching and developing our product candidates or any future product candidates, both in the United States and in territories outside the United States;

- the number and development requirements of any other product candidates that we may pursue;
- our ability to enter into collaborative agreements for the development and/or commercialization of our product candidates, including for oliceridine;
- the costs, timing, and outcome of any regulatory review of oliceridine and any future product candidates, both in the United States and in territories outside the United States;
- the costs, timing, and extent of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- any product liability or other lawsuits, including the recently filed class action complaints, related to our products or us;
- the expenses needed to attract and retain skilled personnel; and
- the costs involved in preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending our intellectual property-related claims, both in the United States and in territories outside the United States.

Please see “Risk Factors” section of this Quarterly Report, for additional risks associated with our substantial capital requirements.

Other Commitments

In the course of normal business operations, we have agreements with contract service providers to assist in the performance of our research and development and manufacturing activities. We can elect to discontinue the work under these agreements at any time. We also could enter into additional collaborative research, contract research, manufacturing and supplier agreements in the future, which may require upfront payments and even long-term commitments of cash.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reported period. In accordance with GAAP, we base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Please see the “Critical Accounting Policies and Significant Judgments and Estimates” section of our most recent [Annual Report on Form 10-K](#) as filed with the SEC which is incorporated herein by reference, for full detail. Except for the added disclosures related to license revenue in Note 2, included in Part 1, Item 1 of this Quarterly Report on Form 10-Q, we did not make any significant changes to our critical accounting policies during the three months ended March 31, 2020.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by applicable SEC regulations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer, or CEO, and our Chief Financial Officer, or CFO, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2020, the end of the period covered by this Quarterly Report on Form 10-Q.

Based on our evaluation, our CEO and CFO concluded that our “disclosure controls and procedures”(as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of the date of our Quarterly Report on Form 10-Q have been designed and are functioning effectively to provide reasonable assurance that the information required to be disclosed by us in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. We believe that a controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II

ITEM 1. LEGAL PROCEEDINGS

In October and November 2018, the Company and certain current and former officers and directors were sued in three purported class actions filed in the U.S. District Court for the Eastern District of Pennsylvania, or the EDPA, alleging violations of the federal securities laws. In January 2019, the three lawsuits were consolidated into one action, and on May 29, 2019, the District Court appointed a group of five individual investors as lead plaintiffs. A consolidated amended complaint was filed on August 2, 2019, alleging, among other things, that the Company and two former officers made false and misleading statements regarding the Company's business, operations, and prospects, including certain statements made relating to the Company's End-of-Phase 2 meeting with the FDA, and certain statements concerning top-line results from the Company's Phase 3 studies. The plaintiffs seek, among other remedies, unspecified damages, attorneys' fees and other costs, and unspecified equitable or injunctive relief. The Company believes that the claims are without merit, and the Company intends to vigorously defend itself against the allegations. On October 2, 2019, the Company moved to dismiss the consolidated amended complaint on the basis that there were no false statements and no scienter as a matter of law.

In December 2018, a shareholder derivative action was filed on behalf of the Company and against certain current and former officers and directors in the EDPA, and in February 2019, two additional, similar shareholder derivative actions were filed in the U.S. District Court for the District of Delaware. A fourth similar shareholder derivative action was filed in the EDPA in September 2019, and a fifth, similar derivative action was filed in the EDPA in November 2019. These cases, which involve facts similar to the consolidated securities lawsuits, assert claims against the individual defendants for, among other things, breach of fiduciary duty, waste of corporate assets, violations of the federal securities laws, and unjust enrichment, and they make a number of demands, including for monetary damages and other equitable and injunctive relief. The derivative actions have been stayed in favor of the consolidated securities lawsuits.

Except as described above, the Company is not involved in any legal proceeding that it expects to have a material effect on its business, financial condition, results of operations and cash flows.

ITEM 1A. RISK FACTORS

Our business is subject to numerous risks. You should carefully consider the following risks and all other information contained in this Quarterly Report on Form 10-Q, as well as general economic and business risks, together with any other documents we file with the SEC. If any of the following events actually occur or risks actually materialize, it could have a material adverse effect on our business, operating results and financial condition and cause the trading price of our common stock to decline.

There have been no material changes to our risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, with the exception of the following risk factors:

Our business could be adversely affected by the effects of health epidemics and pandemics, including the recent COVID-19 outbreak, in regions where we or third parties on which we rely have significant concentrations of clinical trial sites or other business operations. The COVID-19 pandemic could materially affect our operations, including at our headquarters in Pennsylvania and at our clinical trial sites, as well as the business or operations of our CROs or other third parties with whom we conduct business.

Our business could be adversely affected by health epidemics in regions where we have concentrations of clinical trial sites or other business operations and could cause significant disruption in the operations of CROs upon whom we rely. For example, in December 2019, a novel strain of coronavirus, SARS-CoV-2, causing a disease referred to as COVID-19, was reported to have surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple countries, including the United States and several European countries. In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. Further, the President of the United States declared the COVID-19 pandemic a national emergency. The Governor of Pennsylvania declared a state of emergency related to the spread of COVID-19 and issued orders effective March 23, 2020 directing all individuals in seven counties, including where our headquarters is located, to "stay at home" except to perform certain essential activities. We have implemented work-from-home policies for all employees. The effects of the Pennsylvania orders and our work-from-home policies may negatively impact

productivity, disrupt our business, delay our clinical programs and timelines delay our planned commercialization efforts for oliceridine, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct our business in the ordinary course. These and similar, and perhaps more severe, disruptions in our operations could negatively impact our business, operating results and financial condition.

In addition, our clinical trials may be affected by the COVID-19 pandemic. Clinical site initiation and patient enrollment may be delayed due to prioritization of hospital resources toward the COVID-19 pandemic. For instance, enrollment has been paused in our proof-of-concept clinical trials for TRV250 (treatment of acute migraine) and TRV734 (opioid use disorder). Also, some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. Similarly, our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19 and adversely impact our clinical trial operations. Our planned commercialization efforts for oliceridine may be affected by COVID-19 as a result of physician and hospital policies that restrict in-person access to third parties. Additionally, there may be delays in necessary interactions with regulators, hospital committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government or contractor personnel.

The spread of COVID-19, which has caused a broad impact globally, may materially affect us economically. While the potential economic impact brought by, and the duration of, COVID-19 may be difficult to assess or predict, a widespread pandemic could result in significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. In addition, a recession or market correction resulting from the spread of COVID-19 could materially affect our business and the value of our common stock.

If we fail to satisfy all applicable Nasdaq continued listing requirements, including the \$1.00 minimum closing bid price requirement, our common stock may be delisted from Nasdaq, which could have an adverse impact on the liquidity and market price of our common stock.

Our common stock is currently listed on the Nasdaq Capital Market under the symbol “TRVN.” Until March 4, 2020, our common stock was listed on the Nasdaq Global Select Market which, along with the Nasdaq Capital Market, has qualitative and quantitative continued listing requirements, including corporate governance requirements, public float requirements and the \$1.00 minimum closing bid price requirement. On September 3, 2019, we received a letter from the Listing Qualifications Department of Nasdaq indicating that, for 30 consecutive business days, the bid price for our common stock had closed below the minimum \$1.00 per share required for continued listing on the Nasdaq Global Select Market under Nasdaq Listing Rule 5450(a)(1). We had 180 days from the date of the notice, or until March 2, 2020, to regain compliance. To regain compliance with the minimum bid price requirement, the closing bid price of our common stock must be at least \$1.00 per share for a minimum of ten consecutive business days at some point during this 180-day period. On March 4, 2020, we transferred the listing of our common stock to the Nasdaq Capital Market, which allowed us to become eligible for an additional 180-day compliance period provided for companies listed on the Nasdaq Capital Market, provided that we met the continued listing requirements for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the minimum bid price requirement, and provided written notice of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary. On March 3, 2020, we received notice from Nasdaq that we were granted an additional 180 days, or until August 31, 2020, to regain compliance with the minimum price requirement. On April 17, 2020, we received notice from Nasdaq that we were granted an additional 180 days, or until November 13, 2020, to regain compliance with the minimum price requirement due to the global market impact caused by COVID-19. Even with the additional time, there can be no assurance that our stock will regain compliance and even with a reverse stock split there can be no assurance that we can maintain Nasdaq listing compliance. If we are unable to satisfy any of the other continued listing requirements, Nasdaq may take steps to delist our common stock. A delisting of our common stock could adversely affect the market liquidity of our common stock, decrease the market price of our common stock and adversely affect our ability to obtain financing for the continuation of our operations.

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

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

The following is a list of exhibits filed as part of this Quarterly Report on Form 10-Q.

Exhibit Number	Description
10.1#	Employment Agreement dated as February 10, 2020 by and between Trevena, Inc. and Scott Applebaum (incorporated by reference to Exhibit 99.1 Registrant's Current Report on Form 8-K, filed with the SEC on February 14, 2020).
10.2#	Amended and Restated Executive Employment Agreement dated as May 1, 2020 by and between Trevena, Inc. and Carrie L. Bourdow.
10.3#	Amended and Restated Executive Employment Agreement dated as May 1, 2020 by and between Trevena, Inc. and Mark A. Demitrack.
10.4#	Amended and Restated Executive Employment Agreement dated as May 1, 2020 by and between Trevena, Inc. and Robert Yoder.
10.5#	Amended and Restated Executive Employment Agreement dated as May 1, 2020 by and between Trevena, Inc. and Barry Shin.
31.1#	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
31.2#	Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
32.1*#	Certification of the Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*#	Certification of the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101#	The following financial information from this Quarterly Report on Form 10-Q for the three months ended March 31, 2020, formatted in XBRL (eXtensible Business Reporting Language): (i) Balance Sheets as of March 31, 2020 and December 31, 2019, (ii) Statements of Operations and Comprehensive Income (Loss) for the three months ended March 31, 2020 and 2019, (iii) Statement of Stockholders' Equity for the period from January 1, 2020 to March 31, 2020, (iv) Statements of Cash Flows for the three months ended March 31, 2020 and 2019 and (v) Notes to Unaudited Financial Statements, tagged as blocks of text.

* These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Exchange Act and are not to be incorporated

by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Filed herewith.

TREVENA, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Agreement is entered into as of February 10, 2020 by and between Trevena, Inc. (the “**Company**”), a Delaware corporation, and Scott Applebaum (“**Executive**”).

WHEREAS, the Company desires to employ Executive to provide personal services to the Company, and Executive wishes to be employed by the Company and provide personal services to the Company in return for certain compensation and benefits.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. Duties and Scope of Employment.

(a) Positions and Duties. Effective as of February 10, 2020 (the “Effective Date”), Executive will serve as Chief Legal Officer, Chief Compliance Officer, SVP of Regulatory of the Company. Executive will render such business and professional services in the performance of Executive’s duties, consistent with Executive’s position within the Company, as will reasonably be assigned to Executive by the Company’s Chief Executive Officer, to whom Executive will report. The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform Executive’s duties faithfully and to the best of Executive’s ability. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Company’s Board of Directors (the “**Board**”) or the Compensation Committee of the Board (the “**Compensation Committee**”) Chief Executive Officer. Nothing in this Agreement or elsewhere shall prevent Executive from managing his personal investment and affairs, or from engaging in charitable and community affairs, so long as such activities do not either individually or in the aggregate interfere with the performance of his duties for the Company.

2. At-Will Employment. The parties agree that Executive’s employment with the Company will be “at-will” employment and may be terminated at any time with or without cause or notice. Executive’s at-will employment status may not be changed except by way of written agreement signed by Executive and an authorized officer of the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an initial annualized salary of \$385,000 as compensation for services (the “**Base Salary**”). The Base Salary shall be paid in equal installments in accordance with the Company’s normal payroll practices and subject to required withholding and deductions. The Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Signing Bonus. The Company will pay Executive a signing bonus of \$50,000 on the first payroll date after the Effective Date, which amount Executive will repay to Company in full if Executive’s employment with the Company terminates within one year after the Effective Date for any reason other than a

termination (i) by the Executive for Good Reason (as defined below), (ii) by the Company for other than Cause (as defined below) or pursuant to Section 7.b below or (iii) as a result of the death or disability of the Executive.

(c) Bonus. Subject to the terms and conditions set forth in the Trevena, Inc. Incentive Compensation Plan (the "ICP"), Executive may be eligible to receive an annual bonus in a target amount of 40% of the Base Salary, subject to, among other things, the achievement of the corporate and individual performance objectives, which shall be established and assessed by the Company (the "**Target Bonus**"). For 2020, such objectives will be established within the first thirty (30) days after the Effective Date. For each subsequent calendar year, these objectives generally will be established within 90 days after the start of such calendar year. For 2020, Executive shall be eligible for a full year bonus target based on the company performance factor, subject to the terms and conditions of the Plan. The Company reserves the right to modify the terms of the ICP, the Target Bonus and other components of bonus compensation and criteria from year to year.

(d) Equity Award. Upon the approval of the Compensation Committee, the Executive will receive an initial award of 250,000 restricted stock units and 200,000 stock options under the Trevena, Inc. 2013 Equity Incentive Plan, as amended (the "**Plan**"), to purchase the Company's common stock upon terms established by the Board or the Compensation Committee and dated as of the Effective Date. Following the Effective Date, the Executive will be eligible to receive awards of stock options, restricted stock or other equity awards based upon Employee's performance, as determined by the Board from time to time. The Board or Compensation Committee will determine in its discretion the timing and amount, if any, of any grant of such future equity awards to the Executive.

4. Company Policies and Employee Benefits. During the Employment Term, Executive will be eligible to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any such group medical, dental, vision, disability, life insurance, and flexible-spending account plans. All matters of eligibility for coverage and benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

5. Vacation. While employed pursuant to this Agreement, Executive shall be eligible to take vacation subject to the Company's vacation policy.

6. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy.

7. Termination of Employment. The provisions of this Section 7 govern the amount of compensation or benefit, if any, to be provided to Executive upon termination of employment and do not affect the right of either party to terminate the employment relationship at any time for any reason.

(a) Termination for other than Cause, Death or Disability. If at any time following the Effective Date (x) the Company terminates Executive's employment with the Company other than for Cause (as defined below), death or disability, or (y) Executive terminates his employment under this Agreement for Good Reason, then, subject to Section 8, Executive will be entitled to receive, less applicable withholdings and deductions:

(i) an amount equal to twelve (12) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction

whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment;

(B) to the extent not already paid, a cash incentive award under the Company's Incentive Compensation Plan or any similar incentive plan (the "ICP") related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgement and discretion;

(iii) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) twelve (12) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A) through (C), the "**COBRA Payment Period**"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "**Special Severance Payment**"), for the remainder of the COBRA Payment Period;

and

(iv) accelerated vesting as to that number of unvested options and restricted stock units subject to any outstanding equity awards held by Executive at the time of termination that would have otherwise vested if Executive had remained a Company employee for twelve (12) months following the termination date.

(b) Termination in Connection With or Following a Change of Control. In the event that either (x) the Company terminates Executive's employment with the Company other than for Cause, death or disability (A) within the thirty (30) day period prior to a Change of Control, or (B) within the period between the Company's execution of a letter of intent for a proposed Change of Control which proposed Change of Control is later consummated (a "**Designated Change of Control**") and the consummation of such Designated Change of Control, or (C) within the twelve (12) month period after a Change of Control, or (y) Executive resigns for Good Reason within twelve (12) months after a Change of Control, then, in addition to the payments set forth in Section 7(a) above, and subject to Section 8 below, Executive shall also be entitled to, less applicable withholdings and deductions:

(i) an amount equal to fifteen (15) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment;

(B) to the extent not already paid, a cash incentive award under the ICP related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgement and discretion;

(iii) an amount equal to fifteen (15) months of Executive's Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) fifteen (15) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "**COBRA Payment Period**"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "**Special Severance Payment**"), for the remainder of the COBRA Payment Period;

and

(v) immediate and full accelerated vesting of all unvested restricted stock units and stock options held by Executive at the time of termination; *provided, however*, that such acceleration shall not be interpreted to extend the post-termination exercise period of any stock option held by Executive at the time of termination, unless otherwise approved by the Board.

(c) Termination for Cause, or Voluntary Termination. If Executive's employment with the Company terminates voluntarily by Executive (other than for Good Reason as set forth in the preceding subsection or for Cause by the Company then (i) all vesting will terminate immediately with respect to Executive's outstanding equity awards, (ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

(d) Termination due to Death or Disability. If Executive's employment with the Company terminates due to death or disability, then all outstanding equity awards will become immediately vested and remain exercisable for their full term.

(e) Termination by Mutual Consent. If at any time during the course of this Agreement the parties by mutual consent decide to terminate this Agreement, they shall do so by separate agreement setting forth the terms and condition of such termination.

8. Conditions to Receipt of Benefits under Section 7.

(a) Release of Claims. The receipt of any payment or benefit pursuant to Section 7 will be subject to Executive signing and not revoking a release and waiver of all claims in the form attached hereto as Exhibit B (or in such other form as may be specified by the Company in order to comply with then-existing legal requirements to effect a valid release of claims) (the “**Release and Waiver**”) within the applicable time period set forth therein, but in no event later than forty-five days following termination of employment. No payment or benefit pursuant to Section 7 will be paid or provided until the Release and Waiver becomes effective.

(b) Other Conditions. The receipt of any payment or benefits pursuant to Section 7 will be subject to Executive not violating the Employee Proprietary Information, Inventions, and Non-Solicitation Agreement (as defined below), returning all Company property, and complying with the Release and Waiver; provided, however, that Company must provide written notice to Executive of the condition under this Section 8(b) that could prevent the disbursement of any payment or benefits under Section (7) within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by Executive within thirty (30) days of such written notice. Executive understands and agrees that payment or benefits received pursuant to Section 7 are in lieu of and not in addition to any severance or similar benefits that may be provided to other employees of the Company pursuant to a Company policy or plan.

(c) Section 409A. Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under Section 7 above that constitute “deferred compensation ” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with Executive’s termination of employment unless and until Executive has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h) (“**Separation From Service**”), unless the Company reasonably determines that such amounts may be provided to Executive without causing Executive to incur the additional 20% tax under Section 409A. Pay pursuant to Section 7 above, to the extent of payments made from the date of termination of Executive’s employment through March 15 of the calendar year following such termination, are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations and thus payable pursuant to the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations; to the extent such payments are made following said March 15, they are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations made upon an involuntary termination of service and payable pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, to the maximum extent permitted by said provision, with any excess amount being regarded as subject to the distribution requirements of Section 409A(a)(2)(A) of the Internal Revenue Code, including, without limitation, the requirement of Section 409A(a)(2)(B)(i) of the Code that, if Executive is a “specified employee” within the meaning of the aforesaid Section of the Code at the time of such termination from employment, payments be delayed until the earlier of six months after termination of employment or Executive’s death (such applicable date, the “**Specified Employee Initial Payment Date**”). Notwithstanding any other payment schedule set forth in herein, none of the payments under Section 7 will be paid or otherwise delivered prior to the effective date of the Release and Waiver. Except to the extent that payments may be delayed until the Specified Employee Initial Payment Date pursuant to the preceding sentence, on the first regular payroll pay day following the effective date of the Release and Waiver, the Company will pay Executive the payments Executive would otherwise have received under Section 7 on or prior to such date but for the delay in payment related to the effectiveness of the Release and Waiver, with the balance of the payments being paid as originally scheduled. Notwithstanding anything to the contrary set forth herein, if any of the payments or benefits set forth in Section 7 constitute “deferred compensation” within the meaning of Section 409A of the Code and the period during which Executive may review, execute and revoke the Release and Waiver begins in one taxable year and ends in a second taxable year, such payments and benefits shall commence or be made in the second taxable year.

(d) Cooperation With the Company After Termination of Employment. Following termination of the Executive's employment for any reason, upon request by the Company, Executive will fully cooperate with the Company (at the Company's reasonable expense) in all matters reasonably relating to the winding up of pending work including, but not limited to, any litigation in which the Company is involved, and the orderly transfer of any such pending work to such other employees as may be designated by the Company.

9. Definitions.

(a) Cause. For purposes of this Agreement, "**Cause**" is defined as (i) an act of dishonesty by Executive in connection with Executive's responsibilities as an employee, (ii) Executive's conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude, (iii) Executive's gross misconduct, (iv) Executive's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive's relationship with the Company, or (v) Executive's willful breach of any obligations under any written agreement or covenant with the Company.

(b) Change of Control. For purposes of this Agreement, "**Change of Control**" of the Company is defined as:

(i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities; *provided, however*; that sales of equity or debt securities to investors primarily for capital raising purposes shall in no event be deemed a Change of Control; or

(ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors. "**Incumbent Directors**" will mean directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company); *provided, however*; that no change in the composition of the Board in connection with the sale of equity or debt securities to investors primarily for capital raising purposes shall be deemed a Change of Control; or

(iii) the date of the consummation of a merger or consolidation of the Company with any other corporation that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

(c) Good Reason. For purposes of this Agreement, a resignation for "**Good Reason**" is defined as the resignation by Executive within thirty (30) days following the end of the Cure Period (defined below), if any of the following events occur without Executive's express written consent following a Change of Control: (i) the Company reduces the amount of the Base Salary, other than pursuant to a reduction that also is applied to substantially all other executives of the Company, (ii) the Company fails to pay the Base Salary or other benefits required to be provided by the Company hereunder, (iii) the Company materially reduces Executive's core functions, duties or responsibilities in a manner that constitutes a demotion, or (iv) any change

of Executive's principal office location to a location more than thirty (30) miles from the Company's office at 955 Chesterbrook Boulevard, Suite 110, Chesterbrook, PA ; provided, however, that Executive must provide written notice to the Company of the condition that could constitute "Good Reason" within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by the Company within thirty (30) days of such written notice (the "Cure Period").

10. No Conflict with Existing Obligations. Executive represents that his performance of all the terms of this Agreement and, as an executive officer of the Company, do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

11. Parachute Payments.

(a) If any payment or benefit Executive would receive pursuant to a Change of Control from the Company or otherwise ("Payment") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then such Payment shall be reduced to the Reduced Amount. The "Reduced Amount" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the following order unless Executive elects in writing a different order (*provided, however*, that such election shall be subject to Company approval if made on or after the date on which the event that triggers the Payment occurs): reduction of cash payments; cancellation of accelerated vesting of stock awards; reduction of employee benefits. In the event that acceleration of vesting of stock award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's stock awards unless Executive elects in writing a different order for cancellation.

(b) The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change of Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group affecting the Change of Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

(c) The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Company and Executive within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by the Company or Executive) or such other time as requested by the Company or Executive. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, it shall furnish the Company and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Company and Executive.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all

purposes. For this purpose, “**successor**” means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive’s right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a nationally recognized commercial overnight service, specifying next day delivery, with written verification of receipt, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:
955 Chesterbrook Blvd, Suite, 110, Chesterbrook, PA 19087
Attention: Chief Executive Officer I

If to Executive:
at the last residential address known by the Company.

14. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration.

(a) Arbitration. In consideration of Executive’s employment with the Company, the Company and Executive agree that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive’s employment with the Company or the termination of Executive’s employment with the Company, including any breach of this Agreement, but not including those arising out of, relating to, or resulting from the PIAA, will be subject to binding arbitration. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, the Worker Adjustment and Retraining Notification Act, the Family and Medical Leave Act, discrimination or wrongful termination and any statutory claims. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (“AAA”) and that the neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes (“the Rules”). Executive agrees that the arbitrator will administer and conduct any arbitration in a manner consistent with the Rules.

(c) Remedy. Except as provided by this Agreement and by the Rules, including any provisional relief offered therein, arbitration will be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules and this Agreement, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration.

(d) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the

Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(e) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that Executive *is waiving Executive's right to a jury trial*. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

16. Integration. This Agreement, together with the PIIA and the other documents referred to in this Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Pennsylvania.

20. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from Executive's private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

21. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned. IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

TREVENA, INC.

By: /s/ Carrie Bourdow

Date: 2/10/2020

Carrie Bourdow

President & Chief Executive Officer

EXECUTIVE:

/s/ Scott Applebaum

Date: 2/10/2020

EXHIBIT B
Release and Waiver

TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE ONLY

In consideration of the payments and other benefits set forth in the Employment Agreement of [____], to which this form is attached, I, [____], hereby furnish **Trevena, Inc.** (the "**Company**"), with the following release and waiver of claims ("**Release and Waiver**").

In exchange for the consideration provided to me by the Employment Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its current and former directors, officers, employees, stockholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns (collectively, the "**Released Parties**") from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date that I sign this Agreement (collectively, the "**Released Claims**"). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company, or the termination of that employment; (b) all claims related to my compensation or benefits from the Company including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, misclassification, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) (the "**ADEA**"), any other federal, state or local civil or human rights law or any other local, state or federal law, regulation or ordinance, including, but not limited to, the State of Pennsylvania or any subdivision thereof; and any public policy, contract, tort, or common law. I hereby represent and warrant that, other than the Excluded Claims, I am not aware of any claims I have or might have against any of the Released Parties that are not included in the Released Claims.

In granting the release herein, which includes claims that may be unknown to me at present, I acknowledge that I expressly waive and relinquish any and all rights and benefits under any applicable law or statute providing, in substance, that a general release does not extend to claims which a party does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected the terms of such release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Release and Waiver is knowing and voluntary, and that the consideration given for this Release and Waiver is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Release and Waiver, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Release and Waiver is executed; (b) I should consult with an attorney prior to executing this Release and Waiver; and (c) I have twenty-one (21) days from the date of termination of my employment with the Company in which to consider this Release and Waiver (although I may choose voluntarily to execute this Release and Waiver earlier); (d) I have seven (7) days following the execution of this Release and Waiver to revoke my consent to this Release and Waiver; and (e) this Release and Waiver shall not be effective until the seven (7) day revocation period has expired without my having previously revoked this Release and Waiver.

I acknowledge my continuing obligations under my Employee Proprietary Information, Inventions and Non-Solicitation Agreement (the "**PIIA**"). Pursuant to the PIIA I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control. I understand and agree that my right to the severance benefits I am receiving in exchange for my agreement to the terms of this Release and Waiver is contingent upon my continued compliance with my PIIA.

This Release and Waiver constitutes the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Release and Waiver may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: _____ By:

[_____]

TREVENA, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “Agreement”) is entered into as of May 1, 2020 (the “**Effective Date**”) by and between Trevena, Inc. (the “**Company**”), a Delaware corporation, and Carrie L. Bourdow (“**Executive**”).

WHEREAS, the Company desires to employ Executive to provide personal services to the Company, and Executive wishes to continue to be employed by the Company and provide personal services to the Company in return for certain compensation and benefits; and

WHEREAS, the Company and Executive executed that certain Executive Employment Agreement dated as of October 1, 2018 (the “Original Agreement”); and

WHEREAS, Company and executive wish to amend and restate the Original Agreement in its entirety as further provided herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. Duties and Scope of Employment.

(a) Positions and Duties. Effective as of the Effective Date, Executive will serve as Chief Executive Officer and President of the Company. Executive will render such business and professional services in the performance of Executive’s duties, consistent with Executive’s position within the Company, as will reasonably be assigned to Executive by the Company’s Board of Directors (the “**Board**”), to whom Executive will report. The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform Executive’s duties faithfully and to the best of Executive’s ability. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Board or the Compensation Committee of the Board (the “**Compensation Committee**”). Nothing in this Agreement or elsewhere shall prevent Executive from managing her personal investment and affairs, or from engaging in charitable and community affairs, so long as such activities do not either individually or in the aggregate interfere with the performance of her duties for the Company.

2. At-Will Employment. The parties agree that Executive’s employment with the Company is “at-will” employment and may be terminated at any time with or without cause or notice. Executive’s at-will employment status may not be changed except by way of written agreement signed by Executive and an authorized officer of the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an initial annualized salary of \$615,000 as compensation for services (the “**Base Salary**”). The Base Salary shall be paid in equal installments in accordance with the Company’s normal payroll practices and subject to required withholding and deductions. The Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Subject to the terms and conditions set forth in the Trevena, Inc. Incentive Compensation Plan (the “**ICP**”), Executive may be eligible to receive an annual bonus in a target amount of 60% of the Base Salary, subject to, among other things, the achievement of corporate and individual performance objectives, which shall be established and assessed by the Company (the “**Target Bonus**”). In 2020, and for each subsequent calendar year, these objectives generally will be established within 90 days after the start of such calendar year. For 2020, Executive shall be eligible for the full year bonus target based on the company performance factor, subject to the terms and conditions of the ICP. The Company reserves the right to modify the terms of the ICP, the Target Bonus and other components of bonus compensation and criteria from year to year.

(c) Equity Awards. Following the Effective Date, Executive will be eligible to receive awards of stock options, restricted stock or other equity awards based upon Executive’s performance, as determined by the Board from time to time. The Board or the Compensation Committee will determine in its discretion the timing and amount, if any, of any grant of such future equity awards to the Executive in accordance with the Trevena, Inc. 2013 Equity Incentive Plan, as amended (the “**Plan**”).

4 . Company Policies and Employee Benefits. During the Employment Term, Executive will be eligible to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any such group medical, dental, vision, disability, life insurance, and flexible-spending account plans. All matters of eligibility for coverage and benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

5 . Vacation. While employed pursuant to this Agreement, Executive shall be eligible to take vacation subject to the Company’s vacation policy.

6 . Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive’s duties hereunder, in accordance with the Company’s expense reimbursement policy.

7 . Termination of Employment. The provisions of this Section 7 govern the amount of compensation or benefit, if any, to be provided to Executive upon termination of employment and do not affect the right of either party to terminate the employment relationship at any time for any reason.

(a) Termination for other than Cause, Death or Disability. If at any time following the Effective Date (x) the Company terminates Executive’s employment with the Company other than for Cause (as defined below), death or disability, or (y) Executive terminates her employment under

this Agreement for Good Reason, then, subject to Section 8, Executive will be entitled to receive, less applicable withholdings and deductions:

(i) an amount equal to fifteen (15) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the Company's ICP or any similar incentive plan related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) an amount equal to fifteen (15) months of Executive's Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) fifteen (15) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment Period"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "Special Severance Payment"), for the remainder of the COBRA Payment Period.

and

(iv) accelerated vesting as to that number of unvested shares subject to any outstanding equity awards held by Executive at the time of termination that would have otherwise vested if Executive had remained a Company employee for twelve (12) months following the termination date.

(b) Termination in Connection With or Following a Change of Control. In the event that either (x) the Company terminates Executive's employment with the Company other than for Cause, death or disability (A) within the thirty (30) day period prior to a Change of Control, or (B) within the period between the Company's execution of a letter of intent for a proposed Change of Control which proposed Change of Control is later consummated (a "**Designated Change of Control**") and the consummation of such Designated Change of Control, or (C) within the twelve (12) month period after a Change of Control, or (y) Executive resigns for Good Reason within twelve (12) months after a Change of Control, then, in addition to the payments set forth in Section 7(a) above, and subject to Section 8 below, Executive shall also be entitled to, less applicable withholdings and deductions:

(i) an amount equal to twenty-one (21) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the ICP related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) an amount equal to twenty-one (21) months of Executive's annual Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) twenty-one (21) months from the effective date of such termination, (B) the expiration

of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment Period"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "Special Severance Payment"), for the remainder of the COBRA Payment Period;

and

(v) immediate and full accelerated vesting of all unvested shares subject to any outstanding equity awards held by Executive at the time of termination; *provided, however*, that such acceleration shall not be interpreted to extend the post-termination exercise period of any stock option held by Executive at the time of termination, unless otherwise approved by the Board.

(c) Termination for Cause or Voluntary Termination. If Executive's employment with the Company terminates voluntarily by Executive (other than for Good Reason as set forth in the preceding subsection (b)), for Cause by the Company or due to Executive's death or disability, then (i) all vesting will terminate immediately with respect to Executive's outstanding equity awards, (ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

(d) Termination due to Death or Disability. If Executive's employment with the Company terminates due to death or disability, then all outstanding equity awards will become immediately vested and remain exercisable for their full term.

(e) Termination by Mutual Consent. If at any time during the course of this Agreement the parties by mutual consent decide to terminate this Agreement, they shall do so by separate agreement setting forth the terms and condition of such termination.

8. Conditions to Receipt of Benefits under Section 7.

(a) Release of Claims. The receipt of any payment or benefit pursuant to Section 7 will be subject to Executive signing and not revoking a release and waiver of all claims in the form attached hereto as Exhibit A (or in such other form as may be specified by the Company in order to comply with then-existing legal requirements to effect a valid release of claims) (the “**Release and Waiver**”) within the applicable time period set forth therein, but in no event later than forty-five days following termination of employment. No payment or benefit pursuant to Section 7 will be paid or provided until the Release and Waiver becomes effective.

(b) Other Conditions. The receipt of any payment or benefits pursuant to Section 7 will be subject to Executive not violating the Employee Proprietary Information, Inventions and Non-Solicitation Agreement attached hereto as Exhibit B (the “PIIA”), returning all Company property, and complying with the Release and Waiver; provided, however, that Company must provide written notice to Executive of the condition under this Section 8(b) that could prevent the disbursement of any payment or benefits under Section 7 within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by Executive within thirty (30) days of such written notice. Executive understands and agrees that payment or benefits received pursuant to Section 7 are in lieu of and not in addition to any severance or similar benefits that may be provided to other employees of the Company pursuant to a Company policy or plan.

(c) Section 409A. Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under Section 7 above that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with Executive’s termination of employment unless and until Executive has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h) (“**Separation From Service**”), unless the Company reasonably determines that such amounts may be provided to Executive without causing Executive to incur the additional 20% tax under Section 409A. Pay pursuant to Section 7 above, to the extent of payments made from the date of termination of Executive’s employment through March 15 of the calendar year following such termination, are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations and thus payable pursuant to the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations; to the extent such payments are made following said March 15, they are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations made upon an involuntary termination of service and payable pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, to the maximum extent permitted by said provision, with any excess amount being regarded as subject to the distribution requirements of Section 409A(a)(2)(A) of the Internal Revenue Code, including, without limitation, the requirement of Section 409A(a)(2)(B)(i) of the Code that, if Executive is a “specified employee” within the meaning of the aforesaid Section of the Code at the time of such termination from employment, payments be delayed until the earlier of six months after termination of employment or Executive’s death (such applicable date, the “**Specified Employee Initial Payment Date**”). Notwithstanding any other payment schedule set forth in herein, none of the payments under Section 7 will be paid or otherwise delivered prior to the effective date of the Release and Waiver. Except to the extent that payments may be delayed until the Specified Employee Initial Payment Date pursuant to the preceding sentence, on the first regular payroll pay day following the effective date of

the Release and Waiver, the Company will pay Executive the payments Executive would otherwise have received under Section 7 on or prior to such date but for the delay in payment related to the effectiveness of the Release and Waiver, with the balance of the payments being paid as originally scheduled. Notwithstanding anything to the contrary set forth herein, if any of the payments or benefits set forth in Section 7 constitute “deferred compensation” within the meaning of Section 409A of the Code and the period during which Executive may review, execute and revoke the Release and Waiver begins in one taxable year and ends in a second taxable year, such payments and benefits shall commence or be made in the second taxable year.

(d) Cooperation with the Company After Termination of Employment. Following termination of the Executive’s employment for any reason, upon request by the Company, Executive will fully cooperate with the Company (at the Company’s reasonable expense) in all matters reasonably relating to the winding up of pending work including, but not limited to, any litigation in which the Company is involved, and the orderly transfer of any such pending work to such other employees as may be designated by the Company.

9. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” is defined as (i) an act of dishonesty by Executive in connection with Executive’s responsibilities as an employee, (ii) Executive’s conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude, (iii) Executive’s gross misconduct, (iv) Executive’s unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive’s relationship with the Company, or (v) Executive’s willful breach of any obligations under any written agreement or covenant with the Company.

(b) Change of Control. For purposes of this Agreement, “**Change of Control**” of the Company is defined as:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company’s then outstanding voting securities; *provided, however*; that sales of equity or debt securities to investors primarily for capital raising purposes shall in no event be deemed a Change of Control; or

(ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors. “**Incumbent Directors**” will mean directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company); *provided, however*; that no change in the composition of the Board in connection with the sale of equity or debt securities to investors primarily for capital raising purposes shall be deemed a Change of Control; or

(iii) the date of the consummation of a merger or consolidation of the Company that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

(c) Good Reason. For purposes of this Agreement, a resignation for "Good Reason" is defined as the resignation by Executive within thirty (30) days following the end of the Cure Period (defined below), if any of the following events occur without Executive's express written consent: (i) the Company reduces the amount of the Base Salary, other than pursuant to a reduction that also is applied to substantially all other executives of the Company, (ii) the Company fails to pay the Base Salary or other benefits required to be provided by the Company hereunder, (iii) the Company materially reduces Executive's core functions, duties or responsibilities in a manner that constitutes a demotion, or (iv) any change of Executive's principal office location to a location more than thirty (30) miles from the Company's office at 955 Chesterbrook Boulevard, Suite 110, Chesterbrook, PA; provided, however, that Executive must provide written notice to the Company of the condition that could constitute "Good Reason" within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by the Company within thirty (30) days of such written notice (the "Cure Period").

10. No Conflict with Existing Obligations. Executive represents that her performance of all the terms of this Agreement and, as an executive officer of the Company, do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

11. Parachute Payments.

(a) If any payment or benefit Executive would receive pursuant to a Change of Control from the Company or otherwise ("**Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "**Code**"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then such Payment shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced

Amount, reduction shall occur in the following order unless Executive elects in writing a different order (*provided, however*, that such election shall be subject to Company approval if made on or after the date on which the event that triggers the Payment occurs): reduction of cash payments; cancellation of accelerated vesting of stock awards; reduction of employee benefits. In the event that acceleration of vesting of stock award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's stock awards unless Executive elects in writing a different order for cancellation.

(b) The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change of Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group affecting the Change of Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

(c) The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Company and Executive within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by the Company or Executive) or such other time as requested by the Company or Executive. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, it shall furnish the Company and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Company and Executive.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a nationally recognized commercial overnight service, specifying next day delivery, with written verification of receipt, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

955 Chesterbrook Blvd, Suite 110, Chesterbrook, PA 19087
Attn: Vice President, Legal & Compliance

If to Executive:

at the last residential address known by the Company.

14. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration.

(a) Arbitration. In consideration of Executive's employment with the Company, the Company and Executive agree that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's employment with the Company or the termination of Executive's employment with the Company, including any breach of this Agreement, but not including those arising out of, relating to, or resulting from the PIAA, will be subject to binding arbitration. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, the Worker Adjustment and Retraining Notification Act, the Family and Medical Leave Act, discrimination or wrongful termination and any statutory claims. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive. The parties shall each bear their own expenses, legal fees and other fee incurred in connection with this Agreement. Provided, however, in the event the Executive is required to incur attorney's fees in order to obtain any payments or benefits under this Agreement and provided that the Executive prevails on her claim(s), then the Company will reimburse the attorney's fees incurred by Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association ("AAA") and that the neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes (the "**Rules**"). Executive agrees that the arbitrator will administer and conduct any arbitration in a manner consistent with the Rules.

(c) Remedy. Except as provided by this Agreement and by the Rules, including any provisional relief offered therein, arbitration will be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules and this Agreement, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration.

(d) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(e) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that Executive *is waiving Executive's right to a jury trial*. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

16. Integration. This Agreement, together with the PIIA and the other documents referred to in this Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Pennsylvania.

20. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from Executive's private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

21. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

22. Amendment and Restatement. The Parties acknowledge and agree that the Original Agreement hereby is amended in its entirety and restated herein. The terms of this Agreement shall supersede the Original Agreement except for those terms which expressly survive in the Original Agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

TREVENA, INC.

By: /s/ Robert Yoder

Name: Robert Yoder

Title: SVP, Chief Business Officer

EXECUTIVE:

/s/ Carrie L. Bourdow

Carrie L. Bourdow

Release and Waiver

TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE ONLY

In consideration of the payments and other benefits set forth in the Employment Agreement of (_____), to which this form is attached, I, (_____), hereby furnish **TREVENA, INC.** (the "**Company**"), with the following release and waiver of claims ("**Release and Waiver**").

In exchange for the consideration provided to me by the Employment Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its current and former directors, officers, employees, stockholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns (collectively, the "**Released Parties**") from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date that I sign this Agreement (collectively, the "**Released Claims**"). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company, or the termination of that employment; (b) all claims related to my compensation or benefits from the Company including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, misclassification, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) (the "**ADEA**"), any other federal, state or local civil or human rights law or any other local, state or federal law, regulation or ordinance, including, but not limited to, the State of Pennsylvania or any subdivision thereof; and any public policy, contract, tort, or common law. I hereby represent and warrant that, other than the Excluded Claims, I am not aware of any claims I have or might have against any of the Released Parties that are not included in the Released Claims.

In granting the release herein, which includes claims that may be unknown to me at present, I acknowledge that I expressly waive and relinquish any and all rights and benefits under any applicable law or statute providing, in substance, that a general release does not extend to claims which a party does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected the terms of such release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Release and Waiver is knowing and voluntary, and that the consideration given for this Release and Waiver is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Release and Waiver, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Release and Waiver is executed; (b) I should consult with an attorney prior to executing this Release and Waiver; and (c) I have twenty-one (21) days from the date of termination

of my employment with the Company in which to consider this Release and Waiver (although I may choose voluntarily to execute this Release and Waiver earlier); (d) I have seven (7) days following the execution of this Release and Waiver to revoke my consent to this Release and Waiver; and (e) this Release and Waiver shall not be effective until the seven (7) day revocation period has expired without my having previously revoked this Release and Waiver.

I acknowledge my continuing obligations under my Employee Proprietary Information, Inventions and Non-Solicitation Agreement (the "*PIIA*"). Pursuant to the PIIA I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control. I understand and agree that my right to the severance benefits I am receiving in exchange for my agreement to the terms of this Release and Waiver is contingent upon my continued compliance with my PIIA.

This Release and Waiver constitutes the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Release and Waiver may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: _____

Name

“PIAA”

TREVENA, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “Agreement”) is entered into as of May 1, 2020 (the “**Effective Date**”) by and between Trevena, Inc. (the “**Company**”), a Delaware corporation, and Mark A. Demitrack, M.D. (“**Executive**”).

WHEREAS, the Company desires to employ Executive to provide personal services to the Company, and Executive wishes to continue to be employed by the Company and provide personal services to the Company in return for certain compensation and benefits; and

WHEREAS, the Company and Executive executed that certain Executive Employment Agreement effective as of May 21, 2018 (the “Original Agreement”); and

WHEREAS, Company and executive wish to amend and restate the Original Agreement in its entirety as further provided herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. Duties and Scope of Employment.

(a) Positions and Duties. Effective as of the Effective Date, Executive will serve as Senior Vice President, Chief Medical Officer of the Company. Executive will render such business and professional services in the performance of Executive’s duties, consistent with Executive’s position within the Company, as will reasonably be assigned to Executive by the Company’s Chief Executive Officer, to whom Executive will report. The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform Executive’s duties faithfully and to the best of Executive’s ability. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Company’s Board of Directors (the “**Board**”) or the Compensation Committee of the Board (the “**Compensation Committee**”). Nothing in this Agreement or elsewhere shall prevent Executive from managing his personal investment and affairs, or from engaging in charitable and community affairs, so long as such activities do not either individually or in the aggregate interfere with the performance of his duties for the Company.

2. At-Will Employment. The parties agree that Executive’s employment with the Company is “at-will” employment and may be terminated at any time with or without cause or notice. Executive’s at-will employment status may not be changed except by way of written agreement signed by Executive and an authorized officer of the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an initial annualized salary of \$460,000 as compensation for services (the “**Base Salary**”). The Base Salary shall be paid in equal installments in accordance with the Company’s normal payroll practices and subject to required withholding and deductions. The Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Subject to the terms and conditions set forth in the Trevena, Inc. Incentive Compensation Plan (the “**ICP**”), Executive may be eligible to receive an annual bonus in a target amount of 40% of the Base Salary, subject to, among other things, the achievement of corporate and individual performance objectives, which shall be established and assessed by the Company (the “**Target Bonus**”). In 2020, and for each subsequent calendar year, these objectives generally will be established within 90 days after the start of such calendar year. For 2020, Executive shall be eligible for the full year bonus target based on the company performance factor, subject to the terms and conditions of the ICP. The Company reserves the right to modify the terms of the ICP, the Target Bonus and other components of bonus compensation and criteria from year to year.

(c) Equity Awards. Following the Effective Date, Executive will be eligible to receive awards of stock options, restricted stock or other equity awards based upon Executive’s performance, as determined by the Board from time to time. The Board or the Compensation Committee will determine in its discretion the timing and amount, if any, of any grant of such future equity awards to the Executive in accordance with the Trevena, Inc. 2013 Equity Incentive Plan, as amended (the “**Plan**”).

4. Company Policies and Employee Benefits. During the Employment Term, Executive will be eligible to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any such group medical, dental, vision, disability, life insurance, and flexible-spending account plans. All matters of eligibility for coverage and benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

5. Vacation. While employed pursuant to this Agreement, Executive shall be eligible to take vacation subject to the Company’s vacation policy.

6. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive’s duties hereunder, in accordance with the Company’s expense reimbursement policy.

7. Termination of Employment. The provisions of this Section 7 govern the amount of compensation or benefit, if any, to be provided to Executive upon termination of employment and do not affect the right of either party to terminate the employment relationship at any time for any reason.

(a) Termination for other than Cause, Death or Disability. If at any time following the Effective Date (x) the Company terminates Executive’s employment with the Company other than for Cause (as defined below), death or disability, or (y) Executive terminates his employment under

this Agreement for Good Reason, then, subject to Section 8, Executive will be entitled to receive, less applicable withholdings and deductions:

(i) an amount equal to twelve (12) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the Company's ICP or any similar incentive plan related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) twelve (12) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment Period"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "Special Severance Payment"), for the remainder of the COBRA Payment Period.

and

(iv) accelerated vesting as to that number of unvested shares subject to any outstanding equity awards held by Executive at the time of termination that would have

otherwise vested if Executive had remained a Company employee for nine (9) months following the termination date.

(b) Termination in Connection With or Following a Change of Control. In the event that either (x) the Company terminates Executive's employment with the Company other than for Cause, death or disability (A) within the thirty (30) day period prior to a Change of Control, or (B) within the period between the Company's execution of a letter of intent for a proposed Change of Control which proposed Change of Control is later consummated (a "**Designated Change of Control**") and the consummation of such Designated Change of Control, or (C) within the twelve (12) month period after a Change of Control, or (y) Executive resigns for Good Reason within twelve (12) months after a Change of Control, then, in addition to the payments set forth in Section 7(a) above, and subject to Section 8 below, Executive shall also be entitled to, less applicable withholdings and deductions:

(i) an amount equal to fifteen (15) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the ICP related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) an amount equal to fifteen (15) months of Executive's annual Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) fifteen (15) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment

Period”). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h) (2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the “Special Severance Payment”), for the remainder of the COBRA Payment Period;

and

(v) immediate and full accelerated vesting of all unvested shares subject to any outstanding equity awards held by Executive at the time of termination; *provided, however*, that such acceleration shall not be interpreted to extend the post-termination exercise period of any stock option held by Executive at the time of termination, unless otherwise approved by the Board.

(c) Termination for Cause or Voluntary Termination. If Executive’s employment with the Company terminates voluntarily by Executive (other than for Good Reason as set forth in the preceding subsection (b)), for Cause by the Company or due to Executive’s death or disability, then (i) all vesting will terminate immediately with respect to Executive’s outstanding equity awards, (ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

(d) Termination due to Death or Disability. If Executive’s employment with the Company terminates due to death or disability, then all outstanding equity awards will become immediately vested and remain exercisable for their full term.

(e) Termination by Mutual Consent. If at any time during the course of this Agreement the parties by mutual consent decide to terminate this Agreement, they shall do so by separate agreement setting forth the terms and condition of such termination.

8. Conditions to Receipt of Benefits under Section 7.

(a) Release of Claims. The receipt of any payment or benefit pursuant to Section 7 will be subject to Executive signing and not revoking a release and waiver of all claims in the form attached hereto as Exhibit A (or in such other form as may be specified by the Company in order to comply with then-existing legal requirements to effect a valid release of claims) (the “**Release and Waiver**”) within the applicable time period set forth therein, but in no event later than forty-five days following termination of employment. No payment or benefit pursuant to Section 7 will be paid or provided until the Release and Waiver becomes effective.

(b) Other Conditions. The receipt of any payment or benefits pursuant to Section 7 will be subject to Executive not violating the Employee Proprietary Information, Inventions and Non-Solicitation Agreement attached hereto as Exhibit B (the “PIIA”), returning all Company property, and complying with the Release and Waiver; provided, however, that Company must provide written

notice to Executive of the condition under this Section 8(b) that could prevent the disbursement of any payment or benefits under Section 7 within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by Executive within thirty (30) days of such written notice. Executive understands and agrees that payment or benefits received pursuant to Section 7 are in lieu of and not in addition to any severance or similar benefits that may be provided to other employees of the Company pursuant to a Company policy or plan.

(c) Section 409A. Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under Section 7 above that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with Executive’s termination of employment unless and until Executive has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h) (“**Separation From Service**”), unless the Company reasonably determines that such amounts may be provided to Executive without causing Executive to incur the additional 20% tax under Section 409A. Pay pursuant to Section 7 above, to the extent of payments made from the date of termination of Executive’s employment through March 15 of the calendar year following such termination, are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations and thus payable pursuant to the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations; to the extent such payments are made following said March 15, they are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations made upon an involuntary termination of service and payable pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, to the maximum extent permitted by said provision, with any excess amount being regarded as subject to the distribution requirements of Section 409A(a)(2)(A) of the Internal Revenue Code, including, without limitation, the requirement of Section 409A(a)(2)(B)(i) of the Code that, if Executive is a “specified employee” within the meaning of the aforesaid Section of the Code at the time of such termination from employment, payments be delayed until the earlier of six months after termination of employment or Executive’s death (such applicable date, the “**Specified Employee Initial Payment Date**”). Notwithstanding any other payment schedule set forth in herein, none of the payments under Section 7 will be paid or otherwise delivered prior to the effective date of the Release and Waiver. Except to the extent that payments may be delayed until the Specified Employee Initial Payment Date pursuant to the preceding sentence, on the first regular payroll pay day following the effective date of the Release and Waiver, the Company will pay Executive the payments Executive would otherwise have received under Section 7 on or prior to such date but for the delay in payment related to the effectiveness of the Release and Waiver, with the balance of the payments being paid as originally scheduled. Notwithstanding anything to the contrary set forth herein, if any of the payments or benefits set forth in Section 7 constitute “deferred compensation” within the meaning of Section 409A of the Code and the period during which Executive may review, execute and revoke the Release and Waiver begins in one taxable year and ends in a second taxable year, such payments and benefits shall commence or be made in the second taxable year.

(d) Cooperation with the Company After Termination of Employment. Following termination of the Executive’s employment for any reason, upon request by the Company, Executive will fully cooperate with the Company (at the Company’s reasonable expense) in all matters reasonably relating to the winding up of pending work including, but not limited to, any litigation in

which the Company is involved, and the orderly transfer of any such pending work to such other employees as may be designated by the Company.

9. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” is defined as (i) an act of dishonesty by Executive in connection with Executive’s responsibilities as an employee, (ii) Executive’s conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude, (iii) Executive’s gross misconduct, (iv) Executive’s unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive’s relationship with the Company, or (v) Executive’s willful breach of any obligations under any written agreement or covenant with the Company.

(b) Change of Control. For purposes of this Agreement, “**Change of Control**” of the Company is defined as:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company’s then outstanding voting securities; *provided, however*; that sales of equity or debt securities to investors primarily for capital raising purposes shall in no event be deemed a Change of Control; or

(ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors. “**Incumbent Directors**” will mean directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company); *provided, however*; that no change in the composition of the Board in connection with the sale of equity or debt securities to investors primarily for capital raising purposes shall be deemed a Change of Control; or

(iii) the date of the consummation of a merger or consolidation of the Company that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company’s assets.

(c) Good Reason. For purposes of this Agreement, a resignation for “Good Reason” is defined as the resignation by Executive within thirty (30) days following the end of the Cure Period

(defined below), if any of the following events occur without Executive's express written consent: (i) the Company reduces the amount of the Base Salary, other than pursuant to a reduction that also is applied to substantially all other executives of the Company, (ii) the Company fails to pay the Base Salary or other benefits required to be provided by the Company hereunder, (iii) the Company materially reduces Executive's core functions, duties or responsibilities in a manner that constitutes a demotion, or (iv) any change of Executive's principal office location to a location more than thirty (30) miles from the Company's office at 955 Chesterbrook Boulevard, Suite 110, Chesterbrook, PA; provided, however, that Executive must provide written notice to the Company of the condition that could constitute "Good Reason" within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by the Company within thirty (30) days of such written notice (the "Cure Period").

10. No Conflict with Existing Obligations. Executive represents that his performance of all the terms of this Agreement and, as an executive officer of the Company, do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

11. Parachute Payments.

(a) If any payment or benefit Executive would receive pursuant to a Change of Control from the Company or otherwise ("**Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "**Code**"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then such Payment shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the following order unless Executive elects in writing a different order (*provided, however*, that such election shall be subject to Company approval if made on or after the date on which the event that triggers the Payment occurs): reduction of cash payments; cancellation of accelerated vesting of stock awards; reduction of employee benefits. In the event that acceleration of vesting of stock award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's stock awards unless Executive elects in writing a different order for cancellation.

(b) The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change of Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group affecting the Change of Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

(c) The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Company and Executive within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by the Company or Executive) or such other time as requested by the Company or Executive. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, it shall furnish the Company and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Company and Executive.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a nationally recognized commercial overnight service, specifying next day delivery, with written verification of receipt, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

955 Chesterbrook Blvd, Suite 110, Chesterbrook, PA 19087

Attn: Vice President, Legal & Compliance

If to Executive:

at the last residential address known by the Company.

14. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration.

(a) Arbitration. In consideration of Executive's employment with the Company, the Company and Executive agree that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's employment with the Company or the termination of Executive's employment with the

Company, including any breach of this Agreement, but not including those arising out of, relating to, or resulting from the PIAA, will be subject to binding arbitration. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, the Worker Adjustment and Retraining Notification Act, the Family and Medical Leave Act, discrimination or wrongful termination and any statutory claims. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive. The parties shall each bear their own expenses, legal fees and other fee incurred in connection with this Agreement. Provided, however, in the event the Executive is required to incur attorney's fees in order to obtain any payments or benefits under this Agreement and provided that the Executive prevails on his claim(s), then the Company will reimburse the attorney's fees incurred by Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (“AAA”) and that the neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes (the “Rules”). Executive agrees that the arbitrator will administer and conduct any arbitration in a manner consistent with the Rules.

(c) Remedy. Except as provided by this Agreement and by the Rules, including any provisional relief offered therein, arbitration will be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules and this Agreement, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration.

(d) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(e) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that *Executive is waiving Executive's right to a jury trial*. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

16. Integration. This Agreement, together with the PIAA and the other documents referred to in this Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Pennsylvania.

20. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from Executive's private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

21. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

22. Amendment and Restatement. The Parties acknowledge and agree that the Original Agreement hereby is amended in its entirety and restated herein. The terms of this Agreement shall supersede the Original Agreement except for those terms which expressly survive in the Original Agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

TREVENA, INC.

By: /s/ Carrie L. Bourdow

Name: Carrie L. Bourdow

Title: President & Chief Executive Officer

EXECUTIVE:

/s/ Mark A. Demitrack, M.D.

Mark A. Demitrack, M.D.

Release and Waiver

TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE ONLY

In consideration of the payments and other benefits set forth in the Employment Agreement of (_____), to which this form is attached, I, (_____), hereby furnish **TREVENA, INC.** (the "**Company**"), with the following release and waiver of claims ("**Release and Waiver**").

In exchange for the consideration provided to me by the Employment Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its current and former directors, officers, employees, stockholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns (collectively, the "**Released Parties**") from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date that I sign this Agreement (collectively, the "**Released Claims**"). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company, or the termination of that employment; (b) all claims related to my compensation or benefits from the Company including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, misclassification, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) (the "**ADEA**"), any other federal, state or local civil or human rights law or any other local, state or federal law, regulation or ordinance, including, but not limited to, the State of Pennsylvania or any subdivision thereof; and any public policy, contract, tort, or common law. I hereby represent and warrant that, other than the Excluded Claims, I am not aware of any claims I have or might have against any of the Released Parties that are not included in the Released Claims.

In granting the release herein, which includes claims that may be unknown to me at present, I acknowledge that I expressly waive and relinquish any and all rights and benefits under any applicable law or statute providing, in substance, that a general release does not extend to claims which a party does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected the terms of such release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Release and Waiver is knowing and voluntary, and that the consideration given for this Release and Waiver is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Release and Waiver, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Release and Waiver is executed; (b) I should consult with an attorney prior to executing this Release and Waiver; and (c) I have twenty-one (21) days from the date of termination

of my employment with the Company in which to consider this Release and Waiver (although I may choose voluntarily to execute this Release and Waiver earlier); (d) I have seven (7) days following the execution of this Release and Waiver to revoke my consent to this Release and Waiver; and (e) this Release and Waiver shall not be effective until the seven (7) day revocation period has expired without my having previously revoked this Release and Waiver.

I acknowledge my continuing obligations under my Employee Proprietary Information, Inventions and Non-Solicitation Agreement (the "**PIIA**"). Pursuant to the PIIA I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control. I understand and agree that my right to the severance benefits I am receiving in exchange for my agreement to the terms of this Release and Waiver is contingent upon my continued compliance with my PIIA.

This Release and Waiver constitutes the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Release and Waiver may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: _____

Name

“PIAA”

TREVENA, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “Agreement”) is entered into as of May 1, 2020 (the “**Effective Date**”) by and between Trevena, Inc. (the “**Company**”), a Delaware corporation, and Robert Yoder (“**Executive**”).

WHEREAS, the Company desires to employ Executive to provide personal services to the Company, and Executive wishes to continue to be employed by the Company and provide personal services to the Company in return for certain compensation and benefits; and

WHEREAS, the Company and Executive executed that certain Executive Employment Agreement dated as of December 6, 2018 (the “Original Agreement”); and

WHEREAS, Company and executive wish to amend and restate the Original Agreement in its entirety as further provided herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. Duties and Scope of Employment.

(a) Positions and Duties. Effective as of the Effective Date, Executive will serve as Senior Vice President, Chief Business Officer of the Company. Executive will render such business and professional services in the performance of Executive’s duties, consistent with Executive’s position within the Company, as will reasonably be assigned to Executive by the Company’s Chief Executive Officer, to whom Executive will report. The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform Executive’s duties faithfully and to the best of Executive’s ability. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Company’s Board of Directors (the “**Board**”) or the Compensation Committee of the Board (the “**Compensation Committee**”). Nothing in this Agreement or elsewhere shall prevent Executive from managing his personal investment and affairs, or from engaging in charitable and community affairs, so long as such activities do not either individually or in the aggregate interfere with the performance of his duties for the Company.

2. At-Will Employment. The parties agree that Executive’s employment with the Company is “at-will” employment and may be terminated at any time with or without cause or notice. Executive’s at-will employment status may not be changed except by way of written agreement signed by Executive and an authorized officer of the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an initial annualized salary of \$371,000 as compensation for services (the “**Base Salary**”). The Base Salary shall be paid in equal installments in accordance with the Company’s normal payroll practices and subject to required withholding and deductions. The Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Subject to the terms and conditions set forth in the Trevena, Inc. Incentive Compensation Plan (the “**ICP**”), Executive may be eligible to receive an annual bonus in a target amount of 40% of the Base Salary, subject to, among other things, the achievement of corporate and individual performance objectives, which shall be established and assessed by the Company (the “**Target Bonus**”). In 2020, and for each subsequent calendar year, these objectives generally will be established within 90 days after the start of such calendar year. For 2020, Executive shall be eligible for the full year bonus target based on the company performance factor, subject to the terms and conditions of the ICP. The Company reserves the right to modify the terms of the ICP, the Target Bonus and other components of bonus compensation and criteria from year to year.

(c) Equity Awards. Following the Effective Date, Executive will be eligible to receive awards of stock options, restricted stock or other equity awards based upon Executive’s performance, as determined by the Board from time to time. The Board or the Compensation Committee will determine in its discretion the timing and amount, if any, of any grant of such future equity awards to the Executive in accordance with the Trevena, Inc. 2013 Equity Incentive Plan, as amended (the “**Plan**”).

4. Company Policies and Employee Benefits. During the Employment Term, Executive will be eligible to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any such group medical, dental, vision, disability, life insurance, and flexible-spending account plans. All matters of eligibility for coverage and benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

5. Vacation. While employed pursuant to this Agreement, Executive shall be eligible to take vacation subject to the Company’s vacation policy.

6. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive’s duties hereunder, in accordance with the Company’s expense reimbursement policy.

7. Termination of Employment. The provisions of this Section 7 govern the amount of compensation or benefit, if any, to be provided to Executive upon termination of employment and do not affect the right of either party to terminate the employment relationship at any time for any reason.

(a) Termination for other than Cause, Death or Disability. If at any time following the Effective Date (x) the Company terminates Executive’s employment with the Company other than for Cause (as defined below), death or disability, or (y) Executive terminates his employment under

this Agreement for Good Reason, then, subject to Section 8, Executive will be entitled to receive, less applicable withholdings and deductions:

(i) an amount equal to twelve (12) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the Company's ICP or any similar incentive plan related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) twelve (12) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment Period"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "Special Severance Payment"), for the remainder of the COBRA Payment Period.

and

(iv) accelerated vesting as to that number of unvested shares subject to any outstanding equity awards held by Executive at the time of termination that would have

otherwise vested if Executive had remained a Company employee for nine (9) months following the termination date.

(b) Termination in Connection With or Following a Change of Control. In the event that either (x) the Company terminates Executive's employment with the Company other than for Cause, death or disability (A) within the thirty (30) day period prior to a Change of Control, or (B) within the period between the Company's execution of a letter of intent for a proposed Change of Control which proposed Change of Control is later consummated (a "**Designated Change of Control**") and the consummation of such Designated Change of Control, or (C) within the twelve (12) month period after a Change of Control, or (y) Executive resigns for Good Reason within twelve (12) months after a Change of Control, then, in addition to the payments set forth in Section 7(a) above, and subject to Section 8 below, Executive shall also be entitled to, less applicable withholdings and deductions:

(i) an amount equal to fifteen (15) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the ICP related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) an amount equal to fifteen (15) months of Executive's annual Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) fifteen (15) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment

Period”). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h) (2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the “Special Severance Payment”), for the remainder of the COBRA Payment Period;

and

(v) immediate and full accelerated vesting of all unvested shares subject to any outstanding equity awards held by Executive at the time of termination; *provided, however*, that such acceleration shall not be interpreted to extend the post-termination exercise period of any stock option held by Executive at the time of termination, unless otherwise approved by the Board.

(c) Termination for Cause or Voluntary Termination. If Executive’s employment with the Company terminates voluntarily by Executive (other than for Good Reason as set forth in the preceding subsection (b)), for Cause by the Company or due to Executive’s death or disability, then (i) all vesting will terminate immediately with respect to Executive’s outstanding equity awards, (ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

(d) Termination due to Death or Disability. If Executive’s employment with the Company terminates due to death or disability, then all outstanding equity awards will become immediately vested and remain exercisable for their full term.

(e) Termination by Mutual Consent. If at any time during the course of this Agreement the parties by mutual consent decide to terminate this Agreement, they shall do so by separate agreement setting forth the terms and condition of such termination.

8. Conditions to Receipt of Benefits under Section 7.

(a) Release of Claims. The receipt of any payment or benefit pursuant to Section 7 will be subject to Executive signing and not revoking a release and waiver of all claims in the form attached hereto as Exhibit A (or in such other form as may be specified by the Company in order to comply with then-existing legal requirements to effect a valid release of claims) (the “**Release and Waiver**”) within the applicable time period set forth therein, but in no event later than forty-five days following termination of employment. No payment or benefit pursuant to Section 7 will be paid or provided until the Release and Waiver becomes effective.

(b) Other Conditions. The receipt of any payment or benefits pursuant to Section 7 will be subject to Executive not violating the Employee Proprietary Information, Inventions and Non-Solicitation Agreement attached hereto as Exhibit B (the “PIIA”), returning all Company property, and complying with the Release and Waiver; provided, however, that Company must provide written

notice to Executive of the condition under this Section 8(b) that could prevent the disbursement of any payment or benefits under Section 7 within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by Executive within thirty (30) days of such written notice. Executive understands and agrees that payment or benefits received pursuant to Section 7 are in lieu of and not in addition to any severance or similar benefits that may be provided to other employees of the Company pursuant to a Company policy or plan.

(c) Section 409A. Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under Section 7 above that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with Executive’s termination of employment unless and until Executive has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h) (“**Separation From Service**”), unless the Company reasonably determines that such amounts may be provided to Executive without causing Executive to incur the additional 20% tax under Section 409A. Pay pursuant to Section 7 above, to the extent of payments made from the date of termination of Executive’s employment through March 15 of the calendar year following such termination, are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations and thus payable pursuant to the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations; to the extent such payments are made following said March 15, they are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations made upon an involuntary termination of service and payable pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, to the maximum extent permitted by said provision, with any excess amount being regarded as subject to the distribution requirements of Section 409A(a)(2)(A) of the Internal Revenue Code, including, without limitation, the requirement of Section 409A(a)(2)(B)(i) of the Code that, if Executive is a “specified employee” within the meaning of the aforesaid Section of the Code at the time of such termination from employment, payments be delayed until the earlier of six months after termination of employment or Executive’s death (such applicable date, the “**Specified Employee Initial Payment Date**”). Notwithstanding any other payment schedule set forth in herein, none of the payments under Section 7 will be paid or otherwise delivered prior to the effective date of the Release and Waiver. Except to the extent that payments may be delayed until the Specified Employee Initial Payment Date pursuant to the preceding sentence, on the first regular payroll pay day following the effective date of the Release and Waiver, the Company will pay Executive the payments Executive would otherwise have received under Section 7 on or prior to such date but for the delay in payment related to the effectiveness of the Release and Waiver, with the balance of the payments being paid as originally scheduled. Notwithstanding anything to the contrary set forth herein, if any of the payments or benefits set forth in Section 7 constitute “deferred compensation” within the meaning of Section 409A of the Code and the period during which Executive may review, execute and revoke the Release and Waiver begins in one taxable year and ends in a second taxable year, such payments and benefits shall commence or be made in the second taxable year.

(d) Cooperation with the Company After Termination of Employment. Following termination of the Executive’s employment for any reason, upon request by the Company, Executive will fully cooperate with the Company (at the Company’s reasonable expense) in all matters reasonably relating to the winding up of pending work including, but not limited to, any litigation in

which the Company is involved, and the orderly transfer of any such pending work to such other employees as may be designated by the Company.

9. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” is defined as (i) an act of dishonesty by Executive in connection with Executive’s responsibilities as an employee, (ii) Executive’s conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude, (iii) Executive’s gross misconduct, (iv) Executive’s unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive’s relationship with the Company, or (v) Executive’s willful breach of any obligations under any written agreement or covenant with the Company.

(b) Change of Control. For purposes of this Agreement, “**Change of Control**” of the Company is defined as:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company’s then outstanding voting securities; *provided, however*; that sales of equity or debt securities to investors primarily for capital raising purposes shall in no event be deemed a Change of Control; or

(ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors. “**Incumbent Directors**” will mean directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company); *provided, however*; that no change in the composition of the Board in connection with the sale of equity or debt securities to investors primarily for capital raising purposes shall be deemed a Change of Control; or

(iii) the date of the consummation of a merger or consolidation of the Company that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company’s assets.

(c) Good Reason. For purposes of this Agreement, a resignation for “Good Reason” is defined as the resignation by Executive within thirty (30) days following the end of the Cure Period

(defined below), if any of the following events occur without Executive's express written consent: (i) the Company reduces the amount of the Base Salary, other than pursuant to a reduction that also is applied to substantially all other executives of the Company, (ii) the Company fails to pay the Base Salary or other benefits required to be provided by the Company hereunder, (iii) the Company materially reduces Executive's core functions, duties or responsibilities in a manner that constitutes a demotion, or (iv) any change of Executive's principal office location to a location more than thirty (30) miles from the Company's office at 955 Chesterbrook Boulevard, Suite 110, Chesterbrook, PA; provided, however, that Executive must provide written notice to the Company of the condition that could constitute "Good Reason" within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by the Company within thirty (30) days of such written notice (the "Cure Period").

10. No Conflict with Existing Obligations. Executive represents that his performance of all the terms of this Agreement and, as an executive officer of the Company, do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

11. Parachute Payments.

(a) If any payment or benefit Executive would receive pursuant to a Change of Control from the Company or otherwise ("**Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "**Code**"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then such Payment shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the following order unless Executive elects in writing a different order (*provided, however*, that such election shall be subject to Company approval if made on or after the date on which the event that triggers the Payment occurs): reduction of cash payments; cancellation of accelerated vesting of stock awards; reduction of employee benefits. In the event that acceleration of vesting of stock award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's stock awards unless Executive elects in writing a different order for cancellation.

(b) The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change of Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group affecting the Change of Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

(c) The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Company and Executive within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by the Company or Executive) or such other time as requested by the Company or Executive. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, it shall furnish the Company and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Company and Executive.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a nationally recognized commercial overnight service, specifying next day delivery, with written verification of receipt, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

955 Chesterbrook Blvd, Suite 110, Chesterbrook, PA 19087

Attn: Vice President, Legal & Compliance

If to Executive:

at the last residential address known by the Company.

14. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration.

(a) Arbitration. In consideration of Executive's employment with the Company, the Company and Executive agree that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's employment with the Company or the termination of Executive's employment with the

Company, including any breach of this Agreement, but not including those arising out of, relating to, or resulting from the PIAA, will be subject to binding arbitration. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, the Worker Adjustment and Retraining Notification Act, the Family and Medical Leave Act, discrimination or wrongful termination and any statutory claims. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive. The parties shall each bear their own expenses, legal fees and other fee incurred in connection with this Agreement. Provided, however, in the event the Executive is required to incur attorney's fees in order to obtain any payments or benefits under this Agreement and provided that the Executive prevails on his claim(s), then the Company will reimburse the attorney's fees incurred by Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (“AAA”) and that the neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes (the “Rules”). Executive agrees that the arbitrator will administer and conduct any arbitration in a manner consistent with the Rules.

(c) Remedy. Except as provided by this Agreement and by the Rules, including any provisional relief offered therein, arbitration will be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules and this Agreement, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration.

(d) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(e) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that *Executive is waiving Executive's right to a jury trial*. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

16. Integration. This Agreement, together with the PIAA and the other documents referred to in this Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Pennsylvania.

20. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from Executive's private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

21. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

22. Amendment and Restatement. The Parties acknowledge and agree that the Original Agreement hereby is amended in its entirety and restated herein. The terms of this Agreement shall supersede the Original Agreement except for those terms which expressly survive in the Original Agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

TREVENA, INC.

By: /s/ Carrie L. Bourdow

Name: Carrie L. Bourdow

Title: President & Chief Executive Officer

EXECUTIVE:

/s/ Robert Yoder
Robert Yoder

Release and Waiver

TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE ONLY

In consideration of the payments and other benefits set forth in the Employment Agreement of (_____), to which this form is attached, I, (_____), hereby furnish **TREVENA, INC.** (the "**Company**"), with the following release and waiver of claims ("**Release and Waiver**").

In exchange for the consideration provided to me by the Employment Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its current and former directors, officers, employees, stockholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns (collectively, the "**Released Parties**") from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date that I sign this Agreement (collectively, the "**Released Claims**"). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company, or the termination of that employment; (b) all claims related to my compensation or benefits from the Company including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, misclassification, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) (the "**ADEA**"), any other federal, state or local civil or human rights law or any other local, state or federal law, regulation or ordinance, including, but not limited to, the State of Pennsylvania or any subdivision thereof; and any public policy, contract, tort, or common law. I hereby represent and warrant that, other than the Excluded Claims, I am not aware of any claims I have or might have against any of the Released Parties that are not included in the Released Claims.

In granting the release herein, which includes claims that may be unknown to me at present, I acknowledge that I expressly waive and relinquish any and all rights and benefits under any applicable law or statute providing, in substance, that a general release does not extend to claims which a party does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected the terms of such release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Release and Waiver is knowing and voluntary, and that the consideration given for this Release and Waiver is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Release and Waiver, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Release and Waiver is executed; (b) I should consult with an attorney prior to executing this Release and Waiver; and (c) I have twenty-one (21) days from the date of termination

of my employment with the Company in which to consider this Release and Waiver (although I may choose voluntarily to execute this Release and Waiver earlier); (d) I have seven (7) days following the execution of this Release and Waiver to revoke my consent to this Release and Waiver; and (e) this Release and Waiver shall not be effective until the seven (7) day revocation period has expired without my having previously revoked this Release and Waiver.

I acknowledge my continuing obligations under my Employee Proprietary Information, Inventions and Non-Solicitation Agreement (the "**PIIA**"). Pursuant to the PIIA I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control. I understand and agree that my right to the severance benefits I am receiving in exchange for my agreement to the terms of this Release and Waiver is contingent upon my continued compliance with my PIIA.

This Release and Waiver constitutes the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Release and Waiver may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: _____

Name

“PIAA”

TREVENA, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “Agreement”) is entered into as of May 1, 2020 (the “**Effective Date**”) by and between Trevena, Inc. (the “**Company**”), a Delaware corporation, and Barry Shin (“**Executive**”).

WHEREAS, the Company desires to employ Executive to provide personal services to the Company, and Executive wishes to continue to be employed by the Company and provide personal services to the Company in return for certain compensation and benefits; and

WHEREAS, the Company and Executive executed that certain Executive Employment Agreement dated as of June 25, 2019 (the “Original Agreement”); and

WHEREAS, Company and executive wish to amend and restate the Original Agreement in its entirety as further provided herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. Duties and Scope of Employment.

(a) Positions and Duties. Effective as of the Effective Date, Executive will serve as Senior Vice President, Chief Financial Officer of the Company. Executive will render such business and professional services in the performance of Executive’s duties, consistent with Executive’s position within the Company, as will reasonably be assigned to Executive by the Company’s Chief Executive Officer, to whom Executive will report. The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform Executive’s duties faithfully and to the best of Executive’s ability. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Company’s Board of Directors (the “**Board**”) or the Compensation Committee of the Board (the “**Compensation Committee**”). Nothing in this Agreement or elsewhere shall prevent Executive from managing his personal investment and affairs, or from engaging in charitable and community affairs, so long as such activities do not either individually or in the aggregate interfere with the performance of his duties for the Company.

2. At-Will Employment. The parties agree that Executive’s employment with the Company is “at-will” employment and may be terminated at any time with or without cause or notice. Executive’s at-will employment status may not be changed except by way of written agreement signed by Executive and an authorized officer of the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an initial annualized salary of \$427,000 as compensation for services (the “**Base Salary**”). The Base Salary shall be paid in equal installments in accordance with the Company’s normal payroll practices and subject to required withholding and deductions. The Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Subject to the terms and conditions set forth in the Trevena, Inc. Incentive Compensation Plan (the “**ICP**”), Executive may be eligible to receive an annual bonus in a target amount of 40% of the Base Salary, subject to, among other things, the achievement of corporate and individual performance objectives, which shall be established and assessed by the Company (the “**Target Bonus**”). In 2020, and for each subsequent calendar year, these objectives generally will be established within 90 days after the start of such calendar year. For 2020, Executive shall be eligible for the full year bonus target based on the company performance factor, subject to the terms and conditions of the ICP. The Company reserves the right to modify the terms of the ICP, the Target Bonus and other components of bonus compensation and criteria from year to year.

(c) Equity Awards. Following the Effective Date, Executive will be eligible to receive awards of stock options, restricted stock or other equity awards based upon Executive’s performance, as determined by the Board from time to time. The Board or the Compensation Committee will determine in its discretion the timing and amount, if any, of any grant of such future equity awards to the Executive in accordance with the Trevena, Inc. 2013 Equity Incentive Plan, as amended (the “**Plan**”).

4. Company Policies and Employee Benefits. During the Employment Term, Executive will be eligible to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any such group medical, dental, vision, disability, life insurance, and flexible-spending account plans. All matters of eligibility for coverage and benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

5. Vacation. While employed pursuant to this Agreement, Executive shall be eligible to take vacation subject to the Company’s vacation policy.

6. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive’s duties hereunder, in accordance with the Company’s expense reimbursement policy.

7. Termination of Employment. The provisions of this Section 7 govern the amount of compensation or benefit, if any, to be provided to Executive upon termination of employment and do not affect the right of either party to terminate the employment relationship at any time for any reason.

(a) Termination for other than Cause, Death or Disability. If at any time following the Effective Date (x) the Company terminates Executive’s employment with the Company other than for Cause (as defined below), death or disability, or (y) Executive terminates his employment under

this Agreement for Good Reason, then, subject to Section 8, Executive will be entitled to receive, less applicable withholdings and deductions:

(i) an amount equal to twelve (12) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the Company's ICP or any similar incentive plan related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) twelve (12) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment Period"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "Special Severance Payment"), for the remainder of the COBRA Payment Period.

and

(iv) accelerated vesting as to that number of unvested shares subject to any outstanding equity awards held by Executive at the time of termination that would have

otherwise vested if Executive had remained a Company employee for nine (9) months following the termination date.

(b) Termination in Connection With or Following a Change of Control. In the event that either (x) the Company terminates Executive's employment with the Company other than for Cause, death or disability (A) within the thirty (30) day period prior to a Change of Control, or (B) within the period between the Company's execution of a letter of intent for a proposed Change of Control which proposed Change of Control is later consummated (a "**Designated Change of Control**") and the consummation of such Designated Change of Control, or (C) within the twelve (12) month period after a Change of Control, or (y) Executive resigns for Good Reason within twelve (12) months after a Change of Control, then, in addition to the payments set forth in Section 7(a) above, and subject to Section 8 below, Executive shall also be entitled to, less applicable withholdings and deductions:

(i) an amount equal to fifteen (15) months of Executive's annualized Base Salary in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(ii) (A) a pro-rata bonus for the calendar year of termination, determined by multiplying Executive's Target Bonus for such year (assuming employment for the entire year) by a fraction whose numerator is the number of days that Executive was employed during such year and whose denominator is the total number of days in such year, payable within 60 days following the date of Executive's termination of employment; and

(B) to the extent not already paid, a cash incentive award under the ICP related to the fiscal year immediately preceding the year of termination in an amount as determined by the Company's Board or the Compensation Committee of the Board, as the case may be, in its sole judgment and discretion;

(iii) an amount equal to fifteen (15) months of Executive's annual Target Bonus in effect at the time of termination, payable in equal installments on the Company's regularly scheduled payroll dates beginning with the first payroll date following the effective date of the Release and Waiver;

(iv) if Executive timely elects continued coverage under COBRA for Executive and Executive's covered dependents under the Company's group health plans following such termination of employment, the Company will pay the COBRA premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's eligible dependents on the termination date, as and when due to the insurance carrier or COBRA administrator (as applicable), until the earliest of (A) fifteen (15) months from the effective date of such termination, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment (such period from the termination date through the earliest of (A) through (C), the "COBRA Payment

Period”). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h) (2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the “Special Severance Payment”), for the remainder of the COBRA Payment Period;

and

(v) immediate and full accelerated vesting of all unvested shares subject to any outstanding equity awards held by Executive at the time of termination; *provided, however*, that such acceleration shall not be interpreted to extend the post-termination exercise period of any stock option held by Executive at the time of termination, unless otherwise approved by the Board.

(c) Termination for Cause or Voluntary Termination. If Executive’s employment with the Company terminates voluntarily by Executive (other than for Good Reason as set forth in the preceding subsection (b)), for Cause by the Company or due to Executive’s death or disability, then (i) all vesting will terminate immediately with respect to Executive’s outstanding equity awards, (ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

(d) Termination due to Death or Disability. If Executive’s employment with the Company terminates due to death or disability, then all outstanding equity awards will become immediately vested and remain exercisable for their full term.

(e) Termination by Mutual Consent. If at any time during the course of this Agreement the parties by mutual consent decide to terminate this Agreement, they shall do so by separate agreement setting forth the terms and condition of such termination.

8. Conditions to Receipt of Benefits under Section 7.

(a) Release of Claims. The receipt of any payment or benefit pursuant to Section 7 will be subject to Executive signing and not revoking a release and waiver of all claims in the form attached hereto as Exhibit A (or in such other form as may be specified by the Company in order to comply with then-existing legal requirements to effect a valid release of claims) (the “**Release and Waiver**”) within the applicable time period set forth therein, but in no event later than forty-five days following termination of employment. No payment or benefit pursuant to Section 7 will be paid or provided until the Release and Waiver becomes effective.

(b) Other Conditions. The receipt of any payment or benefits pursuant to Section 7 will be subject to Executive not violating the Employee Proprietary Information, Inventions and Non-Solicitation Agreement attached hereto as Exhibit B (the “PIIA”), returning all Company property, and complying with the Release and Waiver; provided, however, that Company must provide written

notice to Executive of the condition under this Section 8(b) that could prevent the disbursement of any payment or benefits under Section 7 within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by Executive within thirty (30) days of such written notice. Executive understands and agrees that payment or benefits received pursuant to Section 7 are in lieu of and not in addition to any severance or similar benefits that may be provided to other employees of the Company pursuant to a Company policy or plan.

(c) Section 409A. Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under Section 7 above that constitute “deferred compensation” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “**Code**”) and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with Executive’s termination of employment unless and until Executive has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h) (“**Separation From Service**”), unless the Company reasonably determines that such amounts may be provided to Executive without causing Executive to incur the additional 20% tax under Section 409A. Pay pursuant to Section 7 above, to the extent of payments made from the date of termination of Executive’s employment through March 15 of the calendar year following such termination, are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations and thus payable pursuant to the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations; to the extent such payments are made following said March 15, they are intended to constitute separate payments for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations made upon an involuntary termination of service and payable pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, to the maximum extent permitted by said provision, with any excess amount being regarded as subject to the distribution requirements of Section 409A(a)(2)(A) of the Internal Revenue Code, including, without limitation, the requirement of Section 409A(a)(2)(B)(i) of the Code that, if Executive is a “specified employee” within the meaning of the aforesaid Section of the Code at the time of such termination from employment, payments be delayed until the earlier of six months after termination of employment or Executive’s death (such applicable date, the “**Specified Employee Initial Payment Date**”). Notwithstanding any other payment schedule set forth in herein, none of the payments under Section 7 will be paid or otherwise delivered prior to the effective date of the Release and Waiver. Except to the extent that payments may be delayed until the Specified Employee Initial Payment Date pursuant to the preceding sentence, on the first regular payroll pay day following the effective date of the Release and Waiver, the Company will pay Executive the payments Executive would otherwise have received under Section 7 on or prior to such date but for the delay in payment related to the effectiveness of the Release and Waiver, with the balance of the payments being paid as originally scheduled. Notwithstanding anything to the contrary set forth herein, if any of the payments or benefits set forth in Section 7 constitute “deferred compensation” within the meaning of Section 409A of the Code and the period during which Executive may review, execute and revoke the Release and Waiver begins in one taxable year and ends in a second taxable year, such payments and benefits shall commence or be made in the second taxable year.

(d) Cooperation with the Company After Termination of Employment. Following termination of the Executive’s employment for any reason, upon request by the Company, Executive will fully cooperate with the Company (at the Company’s reasonable expense) in all matters reasonably relating to the winding up of pending work including, but not limited to, any litigation in

which the Company is involved, and the orderly transfer of any such pending work to such other employees as may be designated by the Company.

9. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” is defined as (i) an act of dishonesty by Executive in connection with Executive’s responsibilities as an employee, (ii) Executive’s conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude, (iii) Executive’s gross misconduct, (iv) Executive’s unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive’s relationship with the Company, or (v) Executive’s willful breach of any obligations under any written agreement or covenant with the Company.

(b) Change of Control. For purposes of this Agreement, “**Change of Control**” of the Company is defined as:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company’s then outstanding voting securities; *provided, however*; that sales of equity or debt securities to investors primarily for capital raising purposes shall in no event be deemed a Change of Control; or

(ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors. “**Incumbent Directors**” will mean directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company); *provided, however*; that no change in the composition of the Board in connection with the sale of equity or debt securities to investors primarily for capital raising purposes shall be deemed a Change of Control; or

(iii) the date of the consummation of a merger or consolidation of the Company that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company’s assets.

(c) Good Reason. For purposes of this Agreement, a resignation for “Good Reason” is defined as the resignation by Executive within thirty (30) days following the end of the Cure Period

(defined below), if any of the following events occur without Executive's express written consent: (i) the Company reduces the amount of the Base Salary, other than pursuant to a reduction that also is applied to substantially all other executives of the Company, (ii) the Company fails to pay the Base Salary or other benefits required to be provided by the Company hereunder, (iii) the Company materially reduces Executive's core functions, duties or responsibilities in a manner that constitutes a demotion, or (iv) any change of Executive's principal office location to a location more than thirty (30) miles from the Company's office at 955 Chesterbrook Boulevard, Suite 110, Chesterbrook, PA; provided, however, that Executive must provide written notice to the Company of the condition that could constitute "Good Reason" within thirty (30) days of the initial existence of such condition and such condition must not have been remedied by the Company within thirty (30) days of such written notice (the "Cure Period").

10. No Conflict with Existing Obligations. Executive represents that his performance of all the terms of this Agreement and, as an executive officer of the Company, do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

11. Parachute Payments.

(a) If any payment or benefit Executive would receive pursuant to a Change of Control from the Company or otherwise ("**Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "**Code**"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then such Payment shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the following order unless Executive elects in writing a different order (*provided, however*, that such election shall be subject to Company approval if made on or after the date on which the event that triggers the Payment occurs): reduction of cash payments; cancellation of accelerated vesting of stock awards; reduction of employee benefits. In the event that acceleration of vesting of stock award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's stock awards unless Executive elects in writing a different order for cancellation.

(b) The accounting firm engaged by the Company for general audit purposes as of the day prior to the effective date of the Change of Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group affecting the Change of Control, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

(c) The accounting firm engaged to make the determinations hereunder shall provide its calculations, together with detailed supporting documentation, to the Company and Executive within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by the Company or Executive) or such other time as requested by the Company or Executive. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, it shall furnish the Company and Executive with an opinion reasonably acceptable to Executive that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder shall be final, binding and conclusive upon the Company and Executive.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a nationally recognized commercial overnight service, specifying next day delivery, with written verification of receipt, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

955 Chesterbrook Blvd, Suite 110, Chesterbrook, PA 19087
Attn: Vice President, Legal & Compliance

If to Executive:

at the last residential address known by the Company.

14. Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration.

(a) Arbitration. In consideration of Executive's employment with the Company, the Company and Executive agree that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's employment with the Company or the termination of Executive's employment with the

Company, including any breach of this Agreement, but not including those arising out of, relating to, or resulting from the PIAA, will be subject to binding arbitration. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, the Worker Adjustment and Retraining Notification Act, the Family and Medical Leave Act, discrimination or wrongful termination and any statutory claims. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive. The parties shall each bear their own expenses, legal fees and other fee incurred in connection with this Agreement. Provided, however, in the event the Executive is required to incur attorney's fees in order to obtain any payments or benefits under this Agreement and provided that the Executive prevails on his claim(s), then the Company will reimburse the attorney's fees incurred by Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association ("AAA") and that the neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes (the "Rules"). Executive agrees that the arbitrator will administer and conduct any arbitration in a manner consistent with the Rules.

(c) Remedy. Except as provided by this Agreement and by the Rules, including any provisional relief offered therein, arbitration will be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules and this Agreement, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration.

(d) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(e) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that *Executive is waiving Executive's right to a jury trial*. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

16. Integration. This Agreement, together with the PIIA and the other documents referred to in this Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Pennsylvania.

20. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from Executive's private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

21. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

22. Amendment and Restatement. The Parties acknowledge and agree that the Original Agreement hereby is amended in its entirety and restated herein. The terms of this Agreement shall supersede the Original Agreement except for those terms which expressly survive in the Original Agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

TREVENA, INC.

By: /s/ Carrie L. Bourdow

Name: Carrie L. Bourdow

Title: President & Chief Executive Officer

EXECUTIVE:

/s/ Barry Shin

Barry Shin

Release and Waiver

TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE ONLY

In consideration of the payments and other benefits set forth in the Employment Agreement of (_____), to which this form is attached, I, (_____), hereby furnish **TREVENA, INC.** (the "**Company**"), with the following release and waiver of claims ("**Release and Waiver**").

In exchange for the consideration provided to me by the Employment Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its current and former directors, officers, employees, stockholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns (collectively, the "**Released Parties**") from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date that I sign this Agreement (collectively, the "**Released Claims**"). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company, or the termination of that employment; (b) all claims related to my compensation or benefits from the Company including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, misclassification, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) (the "**ADEA**"), any other federal, state or local civil or human rights law or any other local, state or federal law, regulation or ordinance, including, but not limited to, the State of Pennsylvania or any subdivision thereof; and any public policy, contract, tort, or common law. I hereby represent and warrant that, other than the Excluded Claims, I am not aware of any claims I have or might have against any of the Released Parties that are not included in the Released Claims.

In granting the release herein, which includes claims that may be unknown to me at present, I acknowledge that I expressly waive and relinquish any and all rights and benefits under any applicable law or statute providing, in substance, that a general release does not extend to claims which a party does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected the terms of such release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Release and Waiver is knowing and voluntary, and that the consideration given for this Release and Waiver is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Release and Waiver, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Release and Waiver is executed; (b) I should consult with an attorney prior to executing this Release and Waiver; and (c) I have twenty-one (21) days from the date of termination

of my employment with the Company in which to consider this Release and Waiver (although I may choose voluntarily to execute this Release and Waiver earlier); (d) I have seven (7) days following the execution of this Release and Waiver to revoke my consent to this Release and Waiver; and (e) this Release and Waiver shall not be effective until the seven (7) day revocation period has expired without my having previously revoked this Release and Waiver.

I acknowledge my continuing obligations under my Employee Proprietary Information, Inventions and Non-Solicitation Agreement (the "*PIIA*"). Pursuant to the PIIA I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control. I understand and agree that my right to the severance benefits I am receiving in exchange for my agreement to the terms of this Release and Waiver is contingent upon my continued compliance with my PIIA.

This Release and Waiver constitutes the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Release and Waiver may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: _____

Name

“PIAA”

Certification of Principal Executive Officer of Trevena, Inc.
Pursuant to Rules 13a-14(a) and 15d-15(a) under the Securities Exchange Act of 1934
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Carrie L. Bourdow, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Trevena, 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 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 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 7, 2020

/s/ CARRIE L. BOURDOW

Carrie L. Bourdow
President and Chief Executive Officer
(Principal Executive Officer)

Certification of Principal Financial Officer of Trevena, Inc.
Pursuant to Rules 13a-14(a) and 15d-15(a) under the Securities Exchange Act of 1934
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Barry Shin, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Trevena, 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 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 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 7, 2020

/s/ BARRY SHIN
Barry Shin
Chief Financial Officer

**Certification Of
Principal Executive Officer
Pursuant To 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Quarterly Report of Trevena, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Carrie L. Bourdow, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Date: May 7, 2020

/s/ CARRIE L. BOURDOW

Carrie L. Bourdow
*President and Chief Executive Officer
(Principal Executive Officer)*

This certification accompanies the Report and shall not be deemed "filed" by the Company with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.

**Certification Of
Principal Financial Officer
Pursuant To 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Quarterly Report of Trevena, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Barry Shin, Chief Financial Officer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Dated: May 7, 2020

/s/ BARRY SHIN
Barry Shin
Chief Financial Officer

This certification accompanies the Report and shall not be deemed "filed" by the Company with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.
