

## Trevena Inc

### COMPANY AND PIPELINE OVERVIEW REPORT

A comprehensive coverage of the company and a summary of the drug pipeline portfolio.

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## ABOUT COMPANY AND PIPELINE OVERVIEW REPORT

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## GLOSSARY

### Number of Drugs in Active Development

Number of drugs associated with the company or subsidiary that are currently in active development, i.e. the development status for the drug(s) is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

### Number of Inactive Drugs

Number of drugs associated with the company or subsidiary that are currently classified as inactive, i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.

### Number of Patents as Owner

Number of patents associated with the company where the company is listed as owner; i.e. the relationship type (or way the patent refers to the company) is: Patent Assignee/Owner, Patent owner (not assignee), Licensee for development and marketing, Licensee – marketing only (Distributor), Patent assignee of family member, Inferred assignee.

### Number of Patents as Third Party

Number of patents associated with the company where the company is listed as third party; i.e. the relationship type (or way the patent refers to the company) is: Patent assignee (not owner), Ex-Licensee for development and marketing, Ex-Licensee marketing only (Distributor), Customer of technology, Ex-Customer of technology, Patent opponent or infringer, Affiliate organization of inventor, Owner of underlying technology.

### Patents summary table

This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

### Number of Deals

A count of deals where the company or one of its subsidiaries is the primary company.

### Key Indications

Displays top ten key indications for the company and its subsidiaries based on frequency (indications occurring with high and identical frequency are always included, and this may result in more than ten Key Indications being listed). Includes both indications associated with patents where the company is patent owner and indications associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

### Key Target-based Actions

Displays top ten key target-based actions for the company and its subsidiaries based on frequency (actions occurring with high and identical frequency are always included, and this may result in more than ten Key Target-based Actions being listed). Includes both target-based actions associated with patents where the company patent owner and target-based actions associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended. A target-based action is one that is associated with a target.

### Key Technologies

Displays top ten key technologies for the company and its subsidiaries based on frequency (technologies occurring with high and identical frequency are always included, and this may result in more than ten Key Technologies being listed). Includes both key technologies associated with patents where the company relationship is patent owner and key technologies associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

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**PLEASE NOTE:** the financials section where present in the report includes: Share Information, Stock Performance chart (including the consensus recommendation), and Major Shareholders. Financial Performance presents graphical and tabular data on Worldwide Sales, Operating Income and Net Income over time, together with a Quarterly earnings update. Balance Sheet lists Assets, Liabilities and Stockholders Equity, and Forecasts includes: EPS Forecast and Other Forecasts. The data reported in all sections (except share information and major stock holders) are correct as of the publication date of the report (and not the download date). For share information and major stock holders the data is correct for the date shown with these sections

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# Trevena Inc

## COMPANY OVERVIEW

Company Name	Trevena Inc
Parent Company Name	Trevena Inc
Website	<a href="http://www.trevenainc.com/">http://www.trevenainc.com/</a>
Country	US
Number of Drugs in Active Development	4
Number of Inactive Drugs	5
Number of Patents as Owner	4
Number of Patents as Third Party	0
Number of Deals	7
Key Indications	Pain,Migraine,Cardiac failure,Depression,Overactive bladder,Parkinsons disease,Viral infection,Congestive heart failure,Myocardial infarction,Pre-eclampsia,Retinopathy
Key Target-based Actions	Opioid receptor mu agonist,Beta-arrestin inhibitor,Opioid receptor delta agonist,Opioid receptor kappa agonist,Unspecified GPCR modulator,Beta-arrestin stimulator,Angiotensin II AT-1 receptor agonist,Angiotensin II AT-1 receptor antagonist,Opioid receptor modulator,Opioid receptor delta modulator,Opioid receptor kappa modulator,Opioid receptor mu modulator
Key Technologies	Small molecule therapeutic,Intravenous formulation,Oral formulation,Capsule formulation,Peptide,Peptidomimetic

## COMPANY PROFILE

### SUMMARY

Trevena is a drug discovery company focused on the development of G-protein coupled receptor-targeting pharmaceuticals.

### LICENSING AGREEMENTS

In February 2009, Ligand entered into a 2-year agreement with Trevena, to screen Ligand's combinatorial compound library using Trevena's technology for 24 potential targets to develop as G-protein coupled receptor (GPCR) therapeutics. Trevena would be granted exclusive worldwide rights to sublicense active candidates resulting from the collaboration, and Ligand would receive payments based on progression of each chosen target.

### EARLY R&D

In February 2010, the company was investigating three G-protein biased GPCR therapeutics for pain, which were in target validation, hit identification, and lead optimization, respectively.

By March 2008, Trevena had licensed a drug discovery platform from Duke University Medical Center.

### FINANCIAL

In December 2014, the company intended to offer and sell \$40 million of shares of its common stock in an underwritten public offering. Later that month, the company priced its offering of 11,250,000 shares of common stock at a price of US \$4.00 per share raising the gross proceeds to around US \$45 million. In addition, the company granted the underwriters a 30-day option to purchase 1,687,500 additional shares of common stock. The offering was expected to close on December 10, 2014; later that month, the company closed the offering and raised net proceeds of approximately \$47.7 million through the sale of 12,848,000 shares in total including the sale of an additional 1,598,000 shares of common stock to the underwriters pursuant to the partial exercise of the option.

In September 2014, the company entered into a senior secured term loan credit facility providing for up to \$35 million of funding, with an interest rate of 6.5% per annum. A total of \$2 million was drawn at closing. Trevena had the option to draw the remaining funds in two equal tranches of \$16.5 million each, upon positive clinical data in the ongoing TRV-130

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and TRV-027 studies. The maturity date for the credit facility was December 01, 2018. At the maturity date, a fee of between 5.25% and 7.0% of the amount borrowed would be due and under certain circumstances, the maturity date might be extended to September 01, 2019.

In January 2014, the company announced the pricing of 8,500,000 shares of common stock priced at US \$7.00 per share, and the underwriters were granted a 30-day option to purchase upto 1,275,000 additional shares at the same price. At that time, the offering was expected to close on February 05, 2014. Later that month, the company increased the number of common stock shares in the initial public offering to 9.25 million and priced the offering at \$7 per share. The underwriters were granted a 30-day option to buy up to an additional 1,387,500 common stock shares at the same price. The shares began trading on the NASDAQ Global Market under the ticker symbol 'TRVN'. In February 2014, the IPO was closed. In March 2014, the underwriters over-allotment option was partially exercised and an additional 270,449 shares were purchased at a price of \$7 per share. The offering was closed on March 06, 2014 with the total issue of 9,520,499 shares. Gross proceeds of approximately \$67 million was raised.

In October 2013, Trevena proposed a initial public offering of shares of its common stock. the company also applied to list its common stock on the NASDAQ under the ticker symbol 'TRVN'.

In July 2010, Trevena completed a \$35 million series B financing.

In March 2008, Trevena raised \$24 million from a series A financing round.

## R&D GRANTS

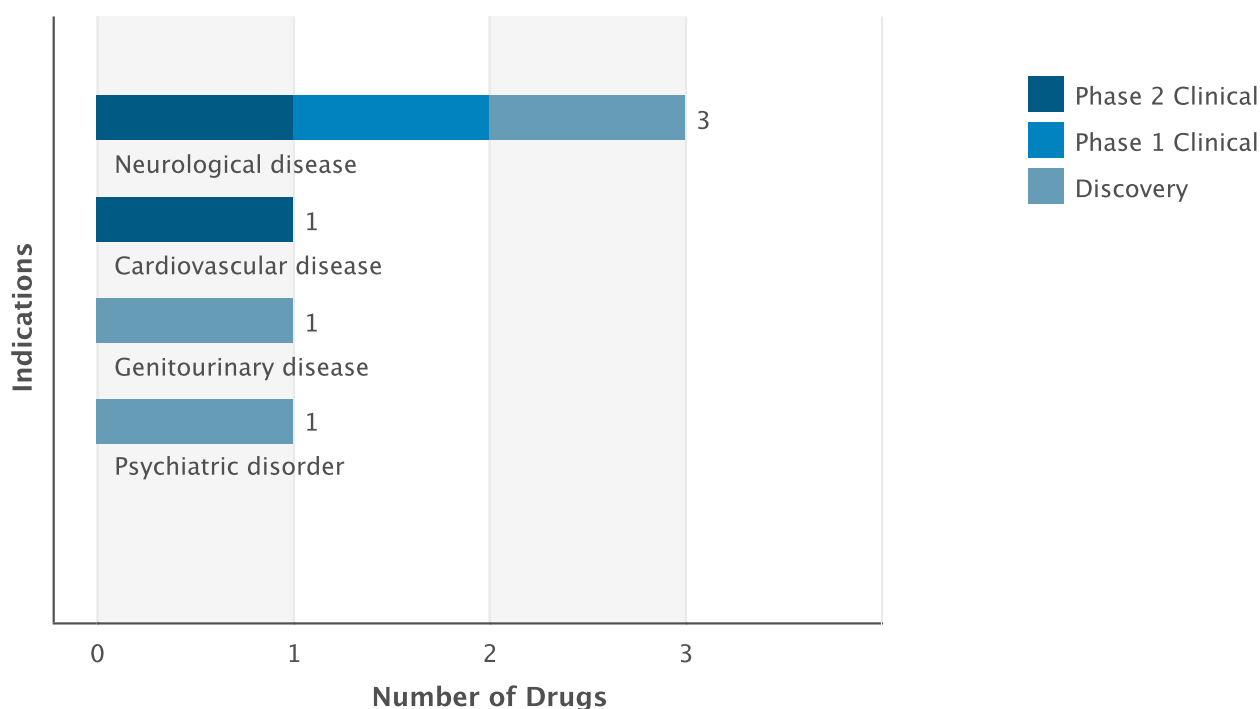
In November 2009, the National Institutes of Health (NIH) awarded Trevena a \$7.65 million Grand Opportunity (GO) Grant to further fund the company's work to identify and characterize functionally selective biased GPCR ligands.

## PRODUCT PORTFOLIO SUMMARY

### DRUGS

#### Drugs by Indication

Active Drugs by Indication Chart



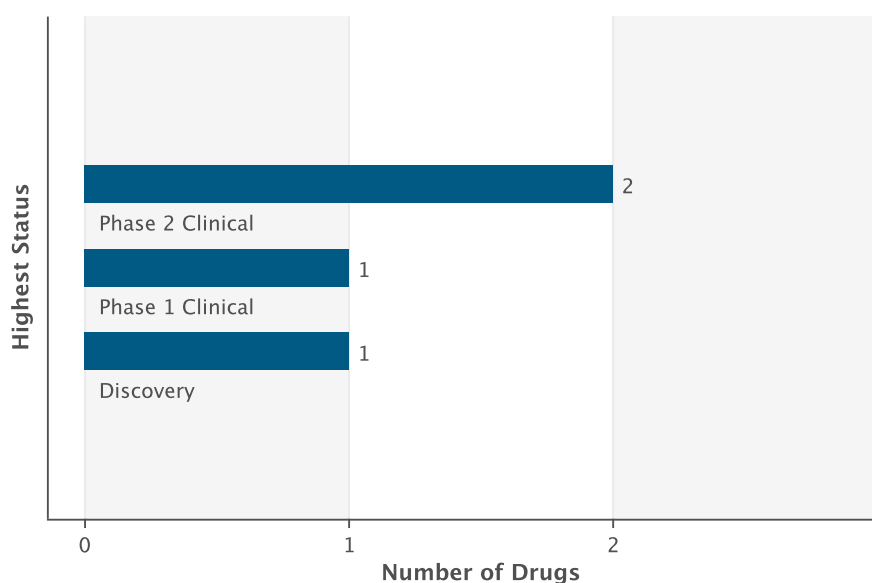
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## Drugs by Indication Table

Indication	Active	Inactive	Total
Neurological disease	3	3	6
Genitourinary disease	1	0	1
Inflammatory disease	0	1	1
Nutritional disorder	0	1	1
Psychiatric disorder	1	0	1
Cardiovascular disease	1	0	1

## Drugs by Highest Status

### Active Drugs by Highest Status Chart



## Drugs by Highest Status Table

Development Status	Number of Drugs
Phase 2 Clinical	2
Phase 1 Clinical	1
Discovery	1
No Development Reported	5

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## DEALS

Deal Type	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Drug - Funding	2	0	0	0	2
Technology - Asset Divestment	0	0	1	0	1
Drug - Screening/Evaluation	1	0	0	0	1
Drug - Development/Commercialization License	1	0	0	0	1
Drug - Development Services	0	0	1	0	1
Technology - Target Validation	0	0	1	0	1

## CLINICAL TRIALS

### Trials by Condition Studied

Condition Studied	Ongoing	All
Cardiovascular disease	1	4
Neurological disease	0	2

### Trials by Phase

Phase	Ongoing	All
Phase 2	1	3
Phase 1	0	8

### Phase Definitions

#### Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

#### Phase 2 Clinical

Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

#### Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

## PATENTS \*

Indication	As Owner	As Third Party	Total
Cardiovascular disease	2	0	2
Gastrointestinal disease	1	0	1
Ocular disease	1	0	1
Neurological disease	3	0	3

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Respiratory disease	1	0	1
Infectious disease	2	0	2
Gynecology and obstetrics	1	0	1

\* This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

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## PRODUCT PORTFOLIO DRUGS

**PLEASE NOTE:** Highest status refers to highest development of that drug for one of the active companies

### TRV-027

<b>Drug Name</b>	TRV-027
<b>Key Synonyms</b>	
<b>Originator Company</b>	Ligand Pharmaceuticals Inc
<b>Active Companies</b>	Actavis plc, Trevena Inc
<b>Inactive Companies</b>	Forest Laboratories Inc, Ligand Pharmaceuticals Inc
<b>Highest Status</b>	Phase 2 Clinical
<b>Active Indications</b>	Cardiac failure
<b>Target-based Actions</b>	Angiotensin II AT-1 receptor antagonist, Beta-arrestin stimulator
<b>Other Actions</b>	Vasodilator, Cardioprotectant
<b>Technologies</b>	Intravenous formulation, Infusion, Biological therapeutic, Peptide
<b>Last Change Date</b>	12-Nov-2014

### TRV-130

<b>Drug Name</b>	TRV-130
<b>Key Synonyms</b>	
<b>Originator Company</b>	Trevena Inc
<b>Active Companies</b>	Trevena Inc
<b>Inactive Companies</b>	
<b>Highest Status</b>	Phase 2 Clinical
<b>Active Indications</b>	Pain
<b>Target-based Actions</b>	Beta-arrestin inhibitor, Opioid receptor mu agonist
<b>Other Actions</b>	Analgesic
<b>Technologies</b>	Intravenous formulation, Small molecule therapeutic
<b>Last Change Date</b>	18-Nov-2014

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## TRV-734

<b>Drug Name</b>	TRV-734
<b>Key Synonyms</b>	
<b>Originator Company</b>	Trevena Inc
<b>Active Companies</b>	Trevena Inc
<b>Inactive Companies</b>	
<b>Highest Status</b>	Phase 1 Clinical
<b>Active Indications</b>	Pain
<b>Target-based Actions</b>	Opioid receptor mu agonist
<b>Other Actions</b>	Analgesic
<b>Technologies</b>	Oral formulation, Capsule formulation, Small molecule therapeutic
<b>Last Change Date</b>	12-Nov-2014

## delta opioid receptor ligands (oral, pain/ depression/ Parkinson's disease/overactive bladder), Trevena

<b>Drug Name</b>	delta opioid receptor ligands (oral, pain/ depression/ Parkinson's disease/overactive bladder), Trevena
<b>Key Synonyms</b>	
<b>Originator Company</b>	Trevena Inc
<b>Active Companies</b>	Trevena Inc
<b>Inactive Companies</b>	
<b>Highest Status</b>	Discovery
<b>Active Indications</b>	Pain, Migraine, Depression, Parkinsons disease, Overactive bladder
<b>Target-based Actions</b>	Opioid receptor delta agonist
<b>Other Actions</b>	Antidepressant, Analgesic, Antiparkinsonian
<b>Technologies</b>	Oral formulation, Small molecule therapeutic
<b>Last Change Date</b>	10-Jul-2014

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