

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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): May 17, 2019

Precision Therapeutics Inc.
(Exact name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation)

001-36790
(Commission File Number)

83-4360734
(IRS Employer Identification No.)

2915 Commers Drive, Suite 900
Eagan, Minnesota
(Address of Principal Executive Offices)

55121
(Zip Code)

Registrant's telephone number, including area code: **(651) 389-4800**

Former Name or Former Address, if Changed Since Last Report: Not Applicable

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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.

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.01 par value	AIPT	Nasdaq Capital Market

Item 7.01 Regulation FD Disclosure.

On May 17, 2019, Precision Therapeutics Inc. released a corporate presentation. The presentation is furnished as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

- (a) Not applicable.
- (b) Not applicable.
- (c) Not applicable.
- (d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Presentation dated May 17, 2019

SIGNATURES

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

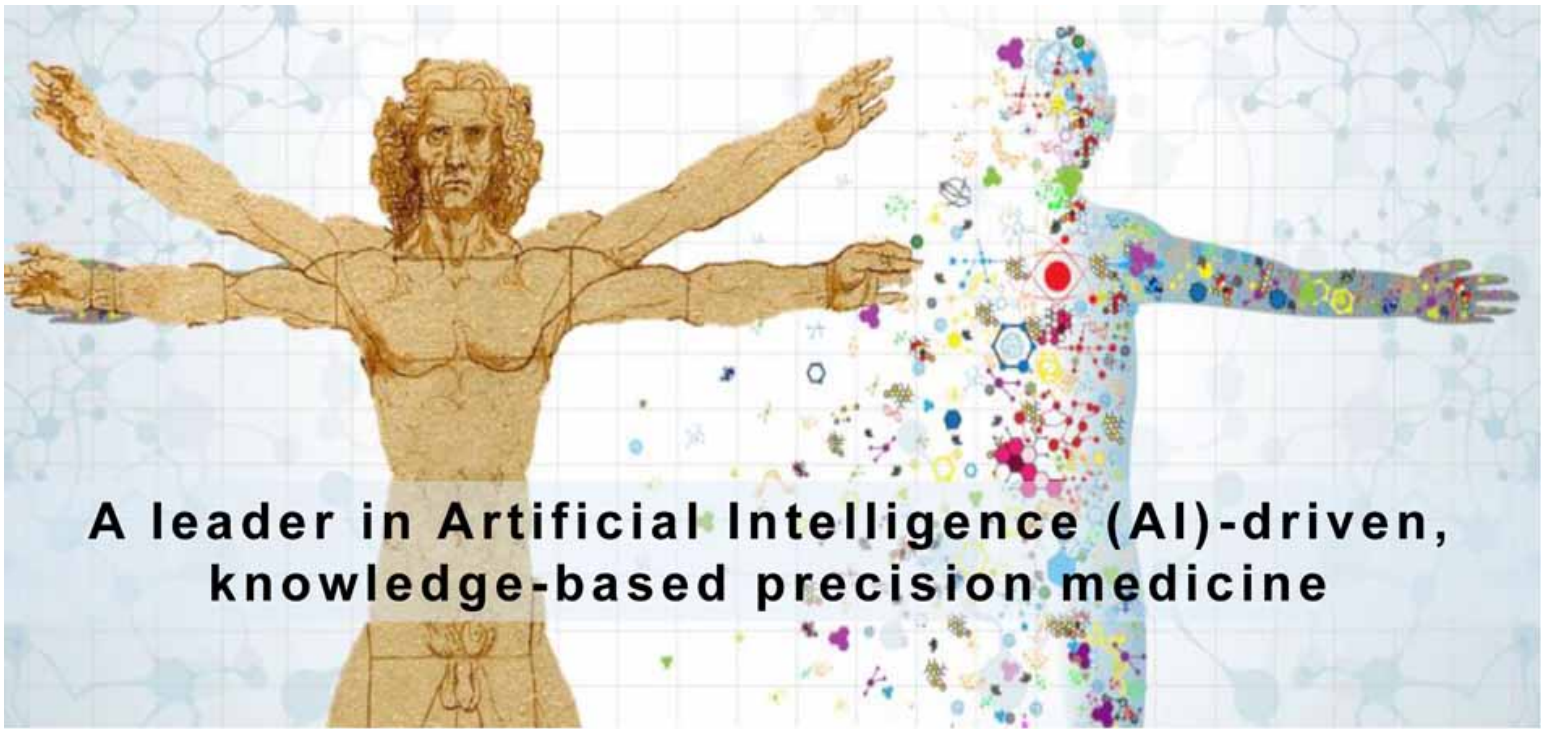
PRECISION THERAPEUTICS INC.

By: /s/ Bob Myers

Name: Bob Myers

Title: Chief Financial Officer

Date: May 17, 2019



**A leader in Artificial Intelligence (AI)-driven,
knowledge-based precision medicine**

Corporate Presentation
May 2019



Forward Looking Statements

This presentation includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include but are not limited to our plans, objectives, expectations and intentions and other statements that contain words such as “expects,” “contemplates,” “anticipates,” “plans,” “intends,” “believes” and variations of such words or similar expressions that predict or indicate future events or trends, or that do not relate to historical matters. These statements are based on our current beliefs or expectations and are inherently subject to significant uncertainties and changes in circumstances, many of which are beyond our control. There can be no assurance that our beliefs or expectations will be achieved. Actual results may differ materially from our beliefs or expectations due to economic, business, competitive, market, regulatory, and other factors. A full discussion of our operations and financial conditions, including risk factors that may affect our business and future prospects, is contained in our most recent regulatory filings with the U.S. Securities and Exchange Commission (“SEC”), including our Form 10–K filed April 1, 2019.

- ▲ We provide AI-driven, knowledge-based discovery services for pharma and diagnostic companies, by leveraging four assets from our recent acquisition of Helomics
 - ▲ A patient derived (PDX) tumor platform for testing of drug response (TruTumor™)
 - ▲ A huge database of 150,000+ genomic and drug response profiles of patient tumors amassed over 10+ years of Helomics clinical testing. (TumorSpace™)
 - ▲ A proprietary AI platform encapsulating the knowledge from Helomics clinical data, public data and collaborator data (e.g. UK 100,000 genomes project)
 - ▲ A CLIA and NYSDOH certified state-of-the art laboratory

- ▲ Our AI platform learns how mutations in the tumor map to drug response, based on the data in TumorSpace. These insights, together with our TruTumor platform are used in discovery service projects to discover new biomarkers, new therapies and new diagnostics

The 100,000 Genomes Project sequenced whole genomes of patients provided by the National Health Service of England. Project members include **Helomics (Precision Therapeutics subsidiary)**, Roche, GSK, Biogen, AstraZeneca, Abbvie, Takeda, Alexion, UCB and Dimension Therapeutics.



Precision Therapeutics Inc. merged with Helomics on April 5 to create a company focused on ai-driven, knowledge-based drug discovery.

- Development of precision therapies targets the genetic variability in the tumor to treat an individual's cancer.
- By the end of 2018, around 22,240 people will have received a new ovarian cancer diagnosis, and the disease will kill around 14,070 people, according to the American Cancer Society (ACS).
- Our goal is to assist pharmaceutical companies in developing targeted therapies for ovarian cancer based on understanding both the multi-omic profile and the drug response profile of the tumor.
- The global precision medicine market* is estimated to reach \$141.7 billion by 2026 up from \$43.6 billion in 2016.

*Source: BIS Research's Global Precision Medicine Market to Reach \$141.70 Billion by 2026, December 2017).

Value Proposition

- We recently acquired Helomics to leverage their \$200 million asset – a large tumor database, PDx platform, AI technology and laboratory, with a focus on ovarian cancer. The market capitalization today is just \$20 million. We plan a stepwise approach in growing value
 1. Leverage our data base of 150,000 cancer cases acquired over 10+ years of standardized, CLIA clinical testing into our artificial intelligence platform with both its unique tumor-drug-response profiles and key cancer biomarkers.
 2. Pilot studies with pharmaceutical and molecular diagnostic companies that, if successful, will lead to long term drug discovery contracts. The company has already signed deals with VC funded Viome, Interpace Diagnostics, SpeciCare and the National Alopecia Areata Foundation.
 3. The third stage is modeled after the Roche / Foundation Health transaction which resulted in a \$250 million investment by Roche and a \$5.4 billion acquisition 2 years later. We plan to seek a pharmaceutical strategic investor in 2020.

A unique data asset – 150,000 tumor cases

- High quality, standardized data from clinical testing
- 131 tumor types
- Drug response profiles
- Biomarker and mutational profiles
- Limited clinical outcome data



\$200MM /10+ years was invested in the company to generate this data

What is our AI platform?

AI-powered bioinformatics engine coupled to a multi-omic knowledgebase (TumorSpace™) of patients with cancer

Unique drug response profiles of patient tumors across panel of chemotherapy agents

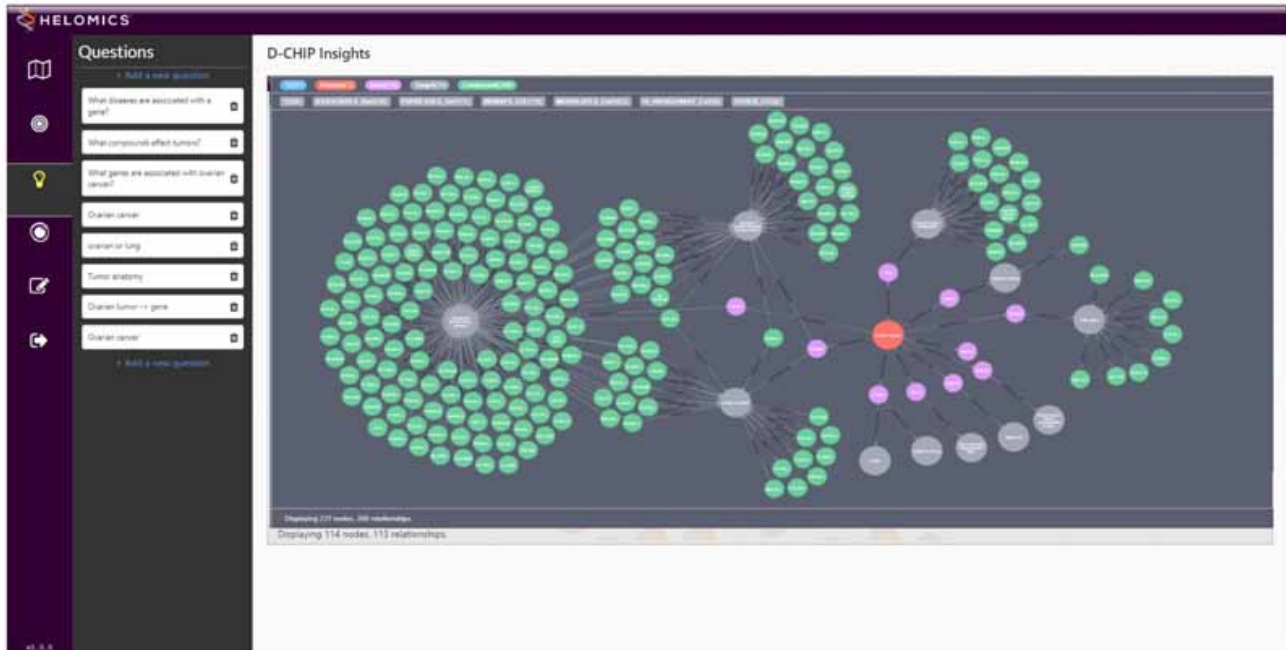
Ability to generate **new** multi-omic and drug discovery response data in-house

Focused on generating actionable insights for Pharma

Once validated will provide enhancement to our Precision Oncology Insights offering to oncologists/patients



12 month effort to structure data, build analytical platform and Ai engine



for ovarian cancer, show me the top 10 genes associated with the disease, the targets associated with those genes, and compounds that act on those targets

- Target stakeholders throughout the drug discovery and development process
 - Translational Groups
 - TI/TV
 - Biomarker discovery
 - Drug discovery
 - Pre-clinical research
- Discovery services projects – leverage D-CHIP Ai and proprietary assays
 - Biomarker discovery
 - Biomarker validation
 - Drug repurposing
 - Drug screening
 - Patient stratification
 - Clinical Trial Assays
- Currently building “strawman” projects to go out and sell in Q2
 - Target list of pharma with GYN pipelines + others

Ramping up BD efforts to Pharma in Q2-2019

Helomics Differentiation

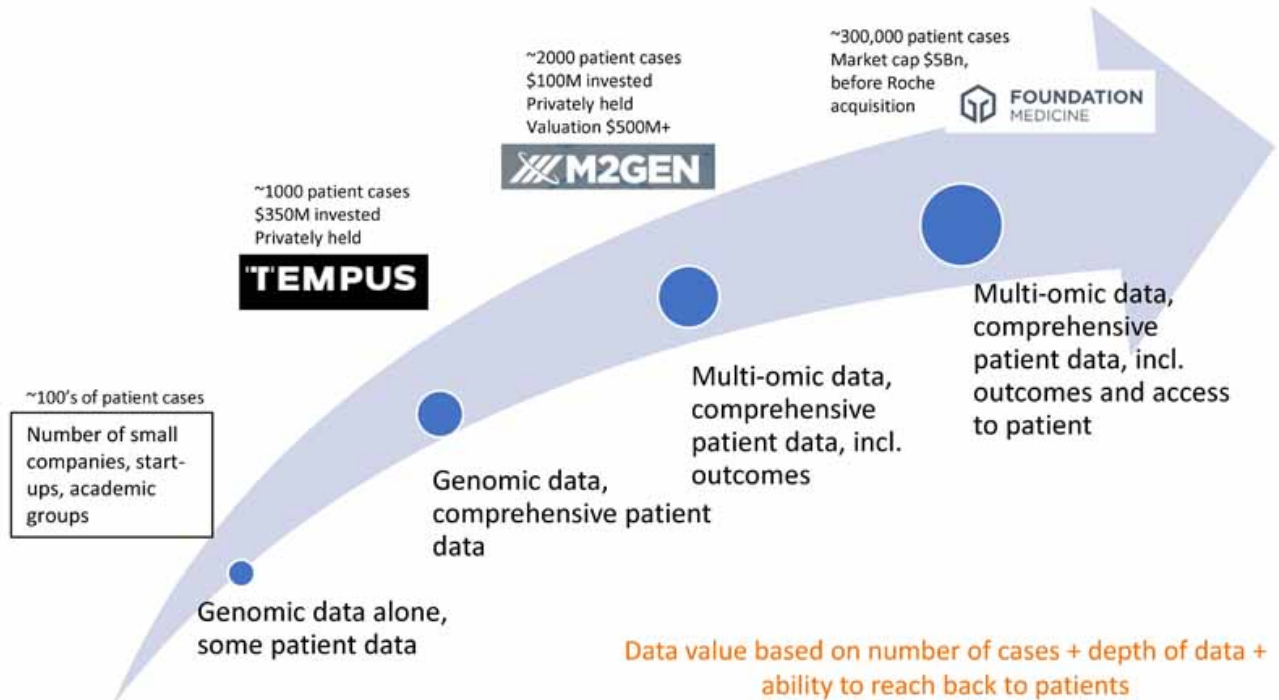
- We already have a large amount of data and the tools to make it actionable
- Tumor drug response data (phenotype) is highly relevant for pharma
- Completeness of data
- Richness of data spanning multiple cancers
- High quality of data (from a CLIA assay)
- Domain expertise
- Ability to generate more data rapidly
- Expertise building AI models for drug discovery

The Competition*

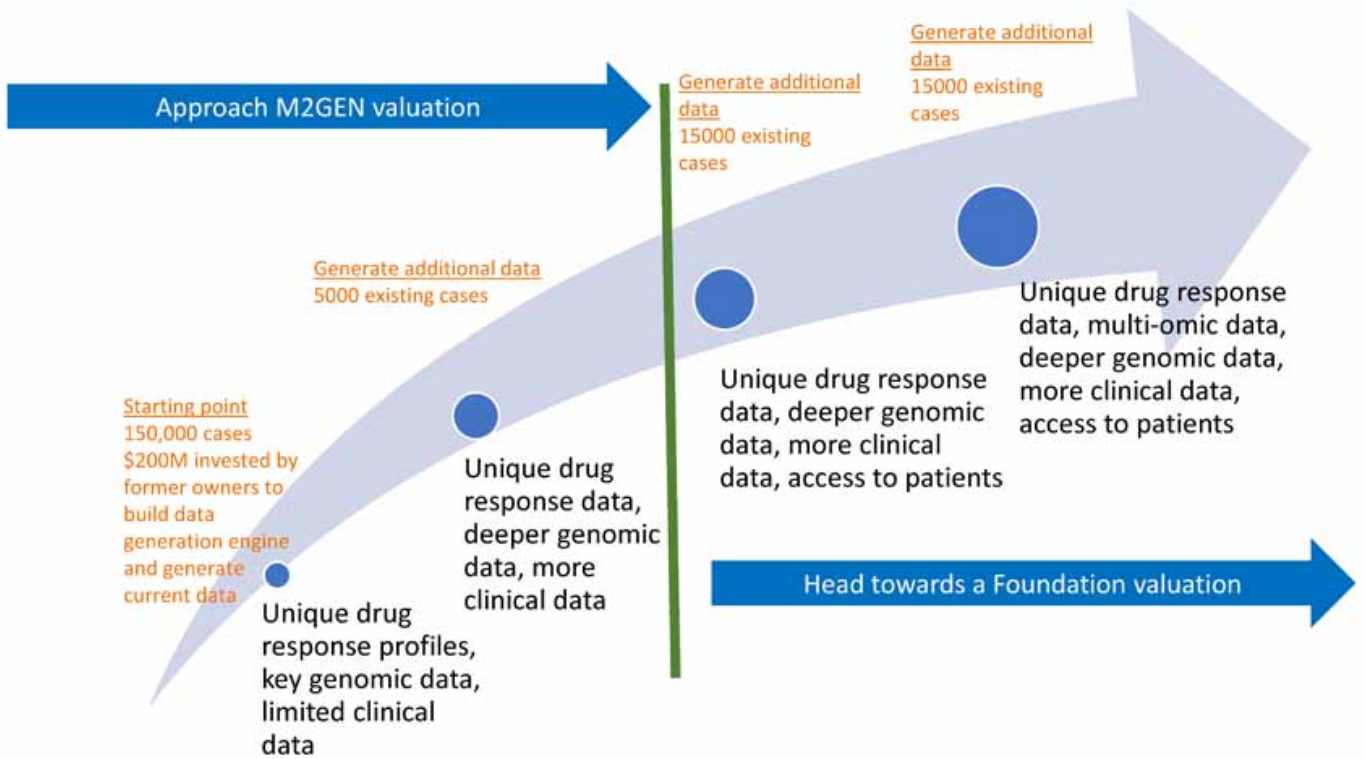
- Expensive and time consuming to build database or acquire data from third parties
- Genomic data alone is not the answer (Pharma knows future = multi-omics)
- Often third party data has gaps or poorly curated
- Limited to a few cancers
- Data can be poor quality if not generated under clinical conditions
- May not understand pharma or application
- Data generation may be limited or depend on partners/third parties
- May have little real-world expertise in developing AI for discovery

*we think of competitors in 4 categories: pure data/software plays e.g. Flatiron Health; Genomics only e.g. 23andMe, AI only e.g. mendel.ai, integrated e.g. Foundation, Tempus, Guardant, NantHealth

The Precision Medicine Data-value Curve



Helomics Multi-omic Data Value & unique drug response profiles



Experienced Management Team

Name	Title	Background
Dr. Carl Schwartz	CEO	<ul style="list-style-type: none"> • CEO, Plastics Research Corporation • Owner and chief executive of a chain of 14 dental practices • Board of Delta Dental Corporation of Michigan
Bob Myers	CFO, Secretary	<ul style="list-style-type: none"> • Public accountant with the international firm of Laventhol & Horwath • CFO, Disetronic Medical & Corporate Controller, Diametric Medical Devices
Gerald Vardzel Jr	President of Helomics	<ul style="list-style-type: none"> • Over 25 years of healthcare executive management experience developing and implementing commercialization strategies and models for technology launches. • Has held executive positions or been associated with a number of innovative companies including Global Specimen Solutions (Acquired), Gentris (Acquired), Accugenomics, Becton Dickinson, Cancer Genetics, Health Diagnostic Laboratory, Compensation Master, Pharmaceutical Development Center, Medical University of South Carolina, Health Science Foundation of South Carolina, Arsenal Capital Partners, Hamilton Robinson, Oread, and AAI Pharma.
Dr. Mark Collins	Vice President, Innovation and Strategy, Helomics	<ul style="list-style-type: none"> • Multiple executive roles in a variety of discovery, informatics and bioinformatics functions within global pharma, and founded three startup software companies in the machine learning and drug discovery space. • Held senior technical and product strategy senior roles in Global Specimen Solutions, BioFortis and Genedata, developing cloud-based software platforms for clinical research, clinical trials and clinical genomics. Prior to that, held senior roles at Cellomics (now part of Thermo Fisher Scientific), where he played a pivotal role in establishing the High-Content Cell Analysis market, building and commercializing several key informatics and bioinformatics products.
Richard Gabriel	COO, TumorGenesis	<ul style="list-style-type: none"> • Expertise in cGMP process scale up and compliance, API manufacturing facility and build processes that are scalable, environmentally acceptable and safe. 3 FDA inspections with no 483's, ISO certification, DEA registration, DoD compliance, NCI contractor and inventor.

- ▲ Marc Malandro PhD, CLP, RTTP, Vice President of Operations for Science at the Chan Zuckerberg Initiative. Mark Zuckerberg announced last year he is selling \$13 Billion of Facebook stock to fund The Chan Zuckerberg Initiative which as the “audacious goal of curing, preventing, or managing all diseases in our children's lifetime”. CNBC 9/15/2018
- ▲ Amelia Wall Warner, PharmD, RPh, Founder and CEO of Clinical Trial Concepts. After serving as head of clinical pharmacogenomics for Merck Research lab she stated Global Specimen Solutions which was build and sold in less than 5 years for a significant return.
- ▲ Robert Murphy, Ph.D. Ray and Stephanie Lane Professor of Computational Biology and Head of the Computational Biology Department in the School of Computer Science at Carnegie Mellon University.
- ▲ Paul Kornblith, M.D. serves as is an Adjunct Professor at the University of Pittsburgh School of Health and Rehabilitation Sciences. He founded Precision Therapeutics Inc. in 1995 and served as its President and Chief Executive Officer until January 2001. Dr. Kornblith has been Professor of Neurosurgery, Director of the Brain Tumor Center and Vice Chairman at the University of Pittsburgh Medical Center.
- ▲ Hector Gomez, MD, PHD, is a proven expert in clinical drug development and has filed more than 20 success new drug applications. He has set up and directed more than 28 clinical trials world wide.

Key Metrics

NASDAQ Symbol	AIPT
Recent Price	\$0.72 (A/O 4/24/19)
Shares Outstanding	29.9 M*
Market Cap	\$21.6 M**
52 Week Range	\$1.58-\$0.60
FY End	Dec. 31
Employees	37
Headquarters	Minneapolis
Year Founded	2015



Helomics has three integrated lines of business

Data Services

We collaborate with Pharma to use our AI engine to drive drug discovery. To this end we are seeking to acquire new data from universities, academic medical centers and hospitals to integrate into our AI platform.

CRO Business

Working with pharma to develop targeted cancer drugs based on a deep functional understanding of cancer. The strength of our approach is our deep knowledge of how tumors respond to drugs, coupled with artificial intelligence to drive research to generate new drug candidates/biomarkers which we can then test in our TruTumor platform (Patient derived tumors).


Clinical Testing

Drug and genomic profiles of the tumor to create actionable information to help the oncologist guide patient therapy.

“Precision Medicine is a form of medicine that uses information about a person’s genes, proteins, and environment to prevent, diagnose, and treat disease. In cancer, precision medicine uses specific information about a person’s tumor to help diagnose, plan treatment, find out how well treatment is working, or make a prognosis.” – NATIONAL CANCER INSTITUTE

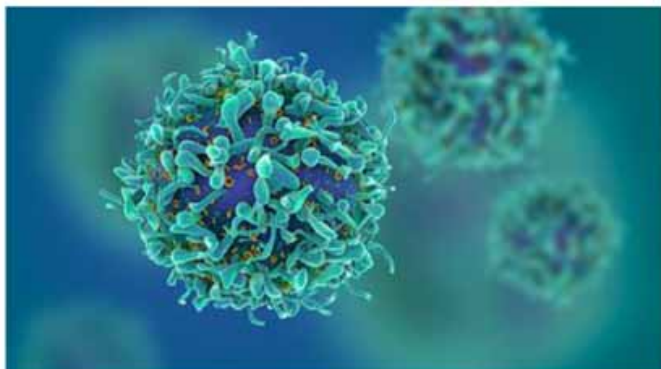
- The global precision medicine* market is estimated to reach \$141.7 billion by 2026, up from \$43.6 billion in 2016. This growth is supported by the industry’s investment in precision medicine, with leading biopharmaceutical companies doubling their investments in the technology over the last five years, with the potential to increase by an additional 33% over the next five years(1)

(1)Source: BIS Research's *Global Precision Medicine Market to Reach \$141.70 Billion by 2026*, December 2017).

- Based in Pittsburgh, PA we own and operate a 17,400 sq. ft. CLIA & NYSDOH certified laboratory.
 - Helomics has a unique library of tumor genomic and drug response profiles accumulated over 10+ years of clinical testing.
 - We have developed a proprietary, cloud based artificial Intelligence platform. Its algorithms are constantly probing new data and building “google-like” intelligence in cancer biology
 - A network of 1500 oncologists have contributed tumor samples held in our repository.
- 

Our TumorGenesis subsidiary is developing the next generation of patient derived (PDX) tumor models for precision cancer drug development.

- We are working with Helomics to develop a superior way for Pharmaceutical companies to test new drugs in live tumors outside the body instead of in mice (PDX mouse model).
- Essentially “fools” the cancer cells into thinking they are still growing inside the patient.
- This approach will provide a much more relevant model of the patient tumor that may be used for testing of drugs for personalizing therapy and the development of new drugs.
- The Company plans to initially develop the TumorGenesis PDX model for three orphan cancers that have a high unmet need for new and effective treatments that are tailored to the patient’s unique tumor profiles: **multiple myeloma, triple-negative breast cancer (TNBC), and ovarian cancer.**



- Unlike the current PDX animal models that grow the tumor in a mouse or rat, the TumorGenesis approach is **faster, less costly** and more closely mimics the characteristics of the patient’s tumor.

The STREAMWAY System is sold to end-users through a combination of direct sales personnel and US/International distributors.

The revolutionary alternative in medical fluid waste management

- ▲ **Meets an industry need** while reducing healthcare operating costs.
- ▲ **\$876 million estimated** U.S. market for the STREAMWAY wall unit.
- ▲ **\$1.5 billion estimated** U.S. market for the disposable cleaning fluid and filters, based on 86 million annual surgical procedures.

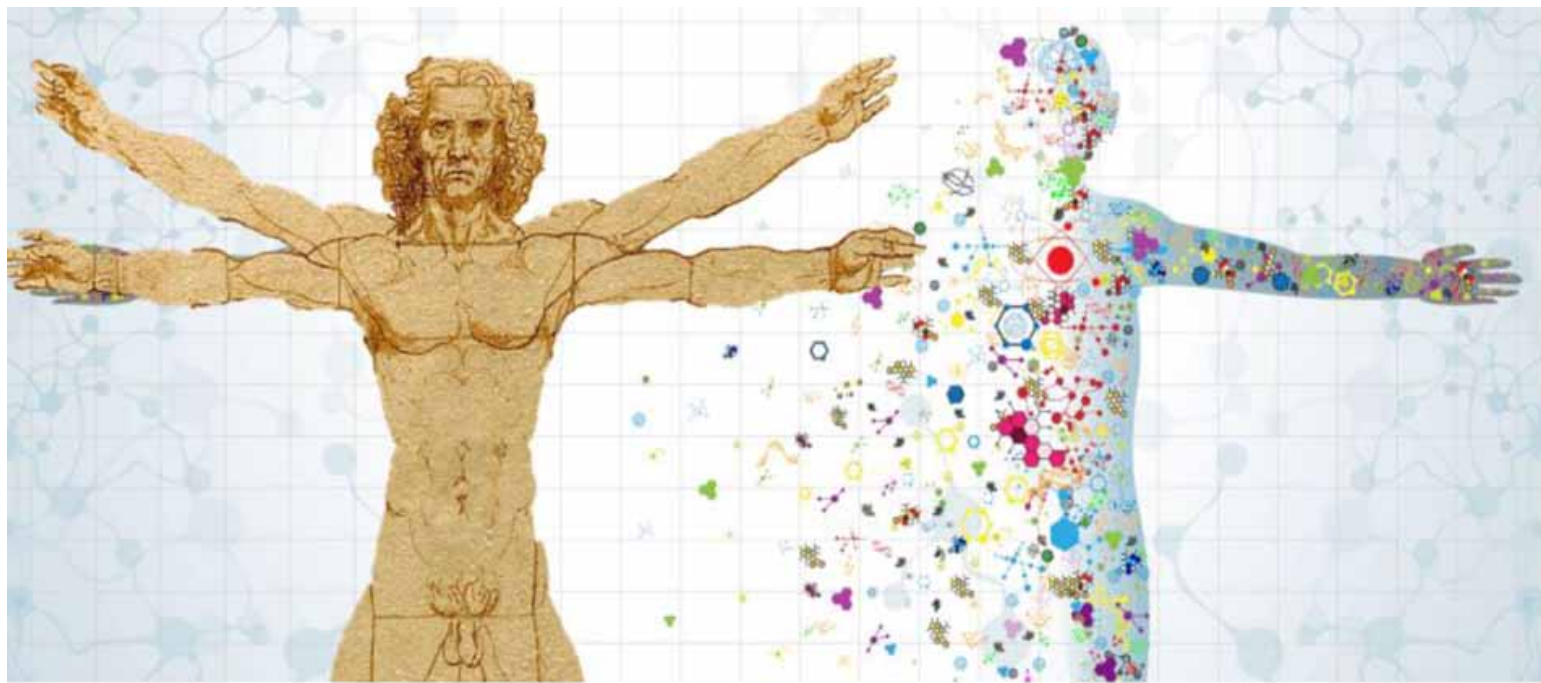
STREAMWAY pricing

- ▲ **\$24,900** for our wall-mounted fluid disposal unit.
- ▲ **\$24,000** anticipated annual revenues from our cleaning fluid and filters, which are replaced after each operation (1,000 procedures per year, \$24 per kit).
 - ▲ Targeted *gross profit margins* are 80%.



Our End Game: Build An Asset Pharma Needs

- We are following the play book written by Foundational Medicine (NYSE: FMI). They built a diagnostic business to generate genomic cancer data which now enables Pharmaceutical companies to develop newtargeted cancer drugs based on the genomic profile of the tumor.
 - FMI went public in 2013. Roche invested \$250 million into FMI in 2015 and then bought 50% of the company at a 100% premium to the public stock price. Roche acquired FMI for \$5.4 billion in 2018.
 - Precision Therapeutics acquired Helomics in April, 2019. As a combined public company the goal is to rapidly monetize the existing database of 150,000 tumors by using our AI engine to generate insights about how different tumors respond to drugs to develop new drugs. Our focus is ovarian cancer.
 - Our goal is to partner with Pharma in the second half of 2019. Seek a strategic investor over the next 18 months.
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For More Information:

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