



**NOVILYTIC**  
The Canary in the Fermenter™

# Novilytic, LLC

Suite 2541  
1281 Win Hentschel Blvd  
West Lafayette, IN  
47906

## EXECUTIVE SUMMARY

### MANAGEMENT TEAM

CEO - Paul C. Dreier, BSc., MBA  
CTO - Fred E. Regnier, Ph.D.  
COO – Timothy E. Woenker, BSc.  
CSO – Jiri Adamec, Ph.D. (Interim)  
(All founding members)

#### INDUSTRY

Category: Life Sciences  
Sub-category: Analytical  
Instrumentation

#### CURRENT INVESTORS

\$ 404,000 Founder Money +  
\$ 4,200,000 SBIR Grants +  
\$ 1,610,000 Seed Round

#### FINANCING SOUGHT

\$2,500,000

#### USE OF PROCEEDS

Product Commercialization (15%)  
Marketing & Sales (42%)  
Inventory / Product (38%)  
Overhead (5%)

#### BANKS

PNC Bank – IN (International Bus.)  
Horizon Bank – IN (Operating Acct.)

#### ACCOUNTING FIRM

Insight Accounting Group, LLC  
(<https://www.insightaccountinggroup.com/>)

#### LAW FIRM

Barrett McNagny, LLP  
(<https://www.barrettlaw.com/>)

#### CONTACT:

Paul C. Dreier, BSc., MBA CEO  
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### COMPANY DESCRIPTION

Novilytic is a molecular recognition company that utilizes nanotechnology to monitor the quality of lifesaving drugs. Our technology is targeted at improving biological pharmaceuticals used to cure diseases, cancers, and various viruses such as COVID-19.

The company is backed by:

- 10 Patents
- Partnerships:
  - 2 Pharmaceutical Consortia
  - 5 Pharma pilot partners
  - 2 Med Device & Analytical Chemistry Universities

Our potency is extended by the Novilytic Team which includes four Ph.D. Chemists and Engineers who have helped us secure significant patents and other IP. Our business plan will increase those forces to ensure we meet customer, market, and regulatory demands.

The Proteomete® (Proteoform Meter) is our new and highly disruptive technology for pharmaceutical processing. It can identify and quantify molecular structure changes in near real-time and may save pharmaceutical manufacturers >\$100,000/day while helping them to meet FDA guidelines.



**Figure 1: Proteometer Reactor**

Novilytic is pursuing the next round of funding to launch the Proteometer into target markets. It is a very disruptive technology that we believe will create a very viable exit opportunity within 4 years.

### TARGET MARKETS

#### Primary Target:

##### mAb Pharmaceutical Testing

Our company is focused on the pharmaceutical analysis market. That concentration is based on strong monetary and regulatory interest from pharmaceutical companies to shorten the time to market and improve the production quality of a specific drug type called monoclonal antibodies ("T-mAbs").

The market's pain is that these drugs require extensive, time-consuming, post-reaction testing and purification. There is no instrument available to test antibody purity in-process – thus releasing that regulatory and monetary burden.

Novilytic has developed an entirely new technology called **The Proteometer** that addresses the issue of receiving results within the analytical time window.

This nanotechnology will be sold using the "razor blade" model of consumables, creating an anticipated \$870,000,000 initial Total Available Market ("TAM").

#### Secondary Target Markets

- 1.) The global animal health market is growing at an unprecedented rate, reached over \$47.1B in 2019, and is expected to experience a 5.8% CAGR over the next eight years. Like human mAb's, this market potentially offers an additional \$190,000,000 TAM
- 2.) Pharmaceutical ELISA Method – used throughout the human and animal markets, ELISA is a 40+-year-old technology that needs to be replaced. Novilytic's Sequestron™ technology may capture a large portion of this \$2.1B TAM
- 3.) BioMedical Western Blot Method – Yet another, older (60 years) method that needs to be replaced. It is our goal that our new Luminon™ technology will replace this approximately \$600,000,000 per year TAM product.

## COMPETITION

We believe the Proteometer's disruptive technology will allow process research and manufacturing chemists/engineers to monitor and control antibody growth in near real-time. We are not aware of any technology available to do this currently, except the Proteometer.

Large laboratory instrument companies are the immediate competitive concern. Their glaring weakness is that they require manual sampling and long tests, from 4 hours to days! Further, their technology relies on mass spectrometers, a very complex and fragile instrument that cannot be used in a manufacturing environment.

The Proteometer continuously monitors the bioreactor, creating a significant technical and time advantage – even in the same environment.

This instrument competition includes ThermoFisher, Waters, Agilent, and >5 others selling \$300,000,000/year in instruments and services. We believe that this large number of wealthy competitors will result in a quick purchase of Novilytic due to our unique technology.

### mAb TARGET MARKET METRICS

<b>Sub Market</b>	<b>TOTAL</b>
Discovery	36,348
Process R&D	75,210
QC & Manufacturing	143,328
<b>Total</b>	<b>254,886</b>
<b>Average Selling Price</b>	<b>\$3,415</b>
<b>TAM</b>	<b>\$870,435,690</b>

**Figure 2: Existing target installations**

## MILESTONES

### **Milestones Achieved**

- 2014 – 2020 = 6 Straight SBIR Awards
  - Results:
    - 10 Patents protecting technology
    - Fully funded R&D team through CY2022
- 2014 – 2016 = Launching of NoviPlex
  - Results:
    - Launched NoviPlex Blood Collection Device
    - Published multiple papers in peer reviews
    - Established critical Vitamin D methods
    - Vitamin D methods global competition winner
- 2017 - 2020 = Development of Proteometer
  - Results:
    - Secured patents for multiple technologies used
    - Developed prototypes
    - Partnered with major instrument company for proof of concept
    - Signed first Partner Agreements
- CY2021 = Partnerships and Business Plan
  - Signed additional Partner Agreements
  - Hired & Trained 5 R&D Employees
  - \$1.6M Seed Fund Raise

### **Commercialization Milestones Planned**

- 2022 = MVP Finalized & Pilot Runs
  - MVP Concept Proven (May 20<sup>th</sup>)
  - Pilot Runs at Customers (initiated October 1<sup>st</sup>)
  - Proteometer Kit Soft Launch (November 14<sup>th</sup>)
- 2023 = Full Launch & New MVPs
  - Launch Proteometer Kits (February 28<sup>th</sup>)
  - Pilot Testing ELISA MVP (anticipated September 18<sup>th</sup>)
  - Pilot Testing WB MVP (anticipated September 18<sup>th</sup>)
  - Launch Proteometer Pharma Manufacturing Kits (anticipated October 15<sup>th</sup>)

### **Five-Year Financial Projection**

	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Revenue</b>	\$ 793,461	\$ 2,405,108	\$ 19,217,493	\$70,930,375	\$174,500,000
<b>Operating Income</b>	(- \$ 684,103)	(-\$ 1,800,000)	\$ 5,471,726	\$33,185,670	\$92,047,658
<b>EBITDA</b>	(-\$ 658,603)	(-\$1,537,241)	\$ 116,267	\$12,428,831	\$ 51,516,926
<b>Net Income</b>	(-\$ 709,603)	(-\$ 1,900,000)	\$ 5,030,955	\$26,422,015	\$ 73,453,652