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National Institutes of Health

Larta Institute

National Institutes of Health Commercialization Assistance Program (NIH-CAP)

Company Profile

Industry Sector: Life Science and pharmaceutical research products

Company Overview: Ascent Biosciences is a Delaware corporation developing and providing biomedical research products. We have 1600 sq ft of office and lab space including modern facilities and capabilities for synthetic organic chemistry and bioassay development.

Target Market(s): Our goal is to develop novel fluorescent sensors for use in biomedical research. These sensors find application in many significant markets, including pharmaceutical drug discovery, genomics analysis, and biodefense, collectively referred to as bioanalysis. Our focus is initially on advanced chemical sensors for intracellular calcium, a pharmaceutical market approaching \$30M annually; future products will branch out into other cellular and molecular binding assays. We will commercialize these products through partnerships with major players in the bioanalysis market. The market potential of the first reagent in our pipeline is \$2M to 3M in 2 years, with successive products in similar markets increasing this sum to \$5-10M in 5 years .

Management

Leadership: Richard Sportsman CEO. Dr. Sportsman was Vice President of Reagents and Assays at Molecular Devices Corporation from 2002 to 2008. He has over 25 years experience in life sciences research and development, with director and senior scientist positions in product R&D and drug discovery at LJL Biosystems, Telik, Inc. and Eli Lilly.

Nicholas Cairns, President and CSO. For over 9 years, Dr. Cairns has been president of Combinix, Inc., a custom chemical synthesis company specializing in designing and synthesizing synthetic organic compounds for biotechnology pharmaceutical, university and government research laboratories. Dr. Cairns has over 20 years chemical expertise working in both industrial and biotechnology companies.

Scientific Advisory Board: – Dr. Sukanta Bhattacharyya – formerly director of chemistry at MDS Analytical Technologies.

Key Value Drivers

Technology*: Red-shifted fluorescent probes and novel probes of metal ion activity in cellular and biochemical assays. These are reagents that enable pharmaceutical, biotech, and other bioscience research labs perform fundamental and applied research, especially in drug discovery for new therapies in all areas of medicine.

Competitive Advantage: Our products will answer unmet needs in bioscience research, especially the burgeoning field of high throughput screening in cellular assays to discover new drugs. Red-shifted dyes allow greater freedom from interferences, hence better accuracy and reliability; applying these to novel ion targets (e.g., sodium, potassium, chloride) will provide new tools to identify drugs with greater specificity.

Plan & Strategy: Commercialize niche products and services in core expertise to bootstrap operations while attracting funding for future products and patent positions. Seek partnerships for distribution or outlicensing of novel products.

Product Pipeline

Available now:

Fluo-XL - a new Calcium dye for high throughput screening; Lewis Acid Reagent – for high throughput, non-radioactive kinase assays FluoPass kit – to calibrate performance of multimode microplate readers Services: IMAP assays for kinases and phosphodiesterases

In development:

- Fluo-XL2 a red shifted calcium dye for improved sensitivity and reliability Fall 2010
- **Pot-au-feu** novel reagent system for cellular potassium flux Spring 2010
- Sodium fire a novel reagent for cellular sodium flux 2011
- Lantha-might highly sensitive fluorescent label for bioresearch 2011