Scintillation Nanotechnologies, LLC.
Phone:
Email:
Website:

Scintillation Nanotechnologies

ILLUMINATING BIOLOGICAL DISCOVERY

THE OPPORTUNITY

The use of radioisotope labels is ubiquitous in biochemistry, cell biology, drug discovery and numerous other fields, yet the approaches for detecting radioisotopes are more than four decades old. The estimated global demand for radiation detection materials is in excess of $15B; however, there is an unmet need for radioisotope detection materials that are more compatible with biological samples and that provide better temporal and spatial resolution.

COMPANY DESCRIPTION

Scintillation Nanotechnologies, LLC develops and manufactures composite nanomaterials for detection of radioisotopes in biochemical and drug discovery applications. The proprietary composite nanomaterials provide a key enabling tool for established and new biochemical investigations that will directly impact human health.

THE TECHNOLOGY

Our catalog of proprietary isotope detection platform which includes the patent-pending nanoSCINT and nanoSPA product lines, provides a key enabling tool for researchers at academic, industrial, and government laboratories. This technology provides previously unseen temporal and spatial resolution in radioisotope detection, opening a new world of experimentation, while also providing a more green-alternative to radioisotope detection by reducing hazardous waste volumes and overall hazardous chemical usage.

BUSINESS MODEL

Scintillation Nanotechnologies provides consumable products for order by our customers. We currently formulate, scale, and package our products for direct sales; nanoSCINT and three types of nanoSPA are immediately available. Development of new products is ongoing and driven by the customer needs and feedback. In addition to new product development, long-term growth opportunities exist in instrument development and array platforms.

TARGET MARKET

The global market for radiation detection is estimated at $15B, with ca. $2.7B in the US. The initial target market is focused on academic research laboratories that require new tools to advance their research, representing ca. $400M (15%) of the US market. As nanoSCINT and nanoSPA become established research tools, we will expand to serve industrial and government segments, and move beyond biological applications to environmental and regulatory areas.

FINANCIALS

Scintillation Nanotechnologies, LLC has four products ready for immediate release to the market and an estimated break-even time of 18 mos. Initial interviews with early adopters and β-testers suggest a near immediate revenue upon product release. We will distribute materials using a direct sales and e-commerce model. We project a 3-year revenue of >$8M with ongoing product development.

MILESTONES

Scintillation Nanotechnologies has four products ready for immediate sale. We have improved the production process to reduce materials costs by over 98% and scale production over 10-fold. We are working with several early adopters to further tailor nanoSCINT and nanoSPA to meet the requirements of our customers.

FUNDRAISING

The technology licensed to Scintillation Nanotechnologies, LLC stemmed from nearly $800,000 in funding from the NIH, NSF, and the University of Arizona.

CAPITAL REQUIREMENTS

Scintillation Nanotechnologies, LLC seeks to raise $1M to cover personnel, operations, equipment and instrumentation and legal and IP costs for a two-year operating window.

EXIT

Scintillation Nanotechnologies will present an extensive and attractive catalog of products for acquisition by large life science research and environmental and industrial testing companies in 5-7 years.

SCINTILLATION NANOTECHNOLOGIES TEAM

Craig Aspinwall, CSO, Co-founder is a professor in the Department Chemistry and Biochemistry and the Department of Biomedical Engineering at the University of Arizona (UA), a member of UA's BIO5 Institute for Collaborative Bioresearch and the Sarver Heart Center at UA, and a participant in the Biological Chemistry Program and Training Grant. He has worked extensively in the field of bioanalytical chemistry to develop new tools that are used to study pancreatic islets and islet cells. In 20+ years of active research he has actively collaborated with multiple diabetes research groups in the US and abroad. He has a demonstrated record of successful and productive research projects, as PI and co-investigator in the field of bioanalytical chemistry, cell biology, nanomaterials chemistry and biomedical engineering.

Colleen Janczak, COO, Co-founder is a research scientist in the Department of Chemistry and Biochemistry at the University of Arizona. Her research efforts have focused on developing nanoparticle-based sensors and she is intimately familiar with all the technical aspects of the nanoSCINT and nanoSPA. She has more than 10 years of experience in a combination of academic research, industrial management and entrepreneurial development that has positioned her to lead this company to a successful outcome.