

## Business incubators help medtech startups bring their ideas to life

■ JAMES SENALL

HEALTHCARE is rapidly colliding with advanced technologies like artificial intelligence, optics and imaging, robotics and augmented and virtual reality and promising to transform the entire spectrum of care — from prevention and diagnosis to delivery and beyond.



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In Rochester, medical technology (medtech) startups are leveraging these technologies in new and innovative ways: Intelon Optics is improving in vitro fertilization (IVF) outcomes, Health Care Originals is creating wearable devices to better manage asthma, and Prolivio is working to provide migraine headache relief for millions.

But innovative ideas for medical devices and technologies don't become viable businesses without entrepreneurs having access to unique expertise, high-tech equipment and substantial capital. Starfish Medical, a large medical device design and development company, estimates that the amount of total company funding needed to develop a Class II 510(k) cleared medical device is approximately \$30 million.

Technology incubators, such as NextCorps at Sibley Square, can help innovators access these needed resources and provide other valuable services. "It takes a corps of businesses, universities and investors to help entrepreneurs bring their life's work into the world, and that's especially true for healthcare startups," said Matt Foley, managing director of NextCorps Incubation Services.

"While medtech innovators might be great at inventing a solution, they often need guidance on clinical

trials and FDA approval processes," added Sujatha Ramanujan, Ph.D., managing director of Luminate NY, an accelerator program administered by NextCorps. "Incubators can connect them with experts and provide tools to help them develop plans and systems to ensure regulatory compliance. They can also help entrepreneurs access clinical trials so that they can demonstrate the commercial potential and viability of their business, and secure funding from grants and venture capitalists (VCs)."

The International Business Innovation Association (InBIA) estimates that there are more than 1,400 business incubators in the United States, some focused exclusively on a specific area such as health-



KH10, the hyper-cooling headband for migraine relief from Prolivio.

care. There are several technology incubators in the Rochester area, including NextCorps and RIT Venture Creations.

Entrepreneurs in incubation programs work closely with seasoned mentors who have launched, grown, or sold companies. Together, they develop a roadmap with strategic milestones to develop products and create a viable business model to commercialize their product and scale their business.

Within the incubator ecosystem, they also get access to capital through local, state and federal grants such as Small Business Innovation Research (SBIR) grants, which are supported by the National Science Foundation, National Institute of Health, and many other federal agencies. They can also make connections to angel investors and venture capitalists, as well as connections to, or memberships in, industry associations, like Medtech, to further develop their networks.

In terms of physical needs, incubators provide startups with affordable access to labs with specialized features like fume hoods, humidity control, analytical tools and subzero refrigeration to support life science research, development and testing.

Project-related assistance is often available as well. For example, NextCorps administers the NIST Manufacturing Extension Partnership (MEP) program for the region, which provides funding and support to manufacturers. Aero-safe Global, a provider to the pharmaceutical and medical device industries, used MEP services to



Certainty Analytical Labs' facility at NextCorps. Founder Dr. Brandy Young pictured top left.

complete several projects and now ranks among the fastest growing companies.

Rochester-based Certainty Analytical Labs has set up operations at NextCorps and is a member of its incubator. The company uses lab facilities and mentoring support to expand their Hemp and CBD analytical testing startup into the rapidly growing cannabis industry, to provide local distributors with the quality compliance data they need. Another member, Prolivio, is using NextCorps' 3D prototyping lab to further iterate

KHIO, its hyper-cooling headband that uses electronic plates to create a nearly instant cool surface to relieve migraines.

### ACCELERATING MEDTECH DEVELOPMENT

Incubators often run accelerator programs that put healthcare companies on a faster track to launch, helping them secure participation in clinical trials, FDA approvals, product commercialization, and initial revenue.

Luminate NY has many healthcare startups within its portfolio that are leveraging optics, photonics, or imaging technology to bring a new level of capabilities to the medical industry, such as wearables and patient-point-of-care solutions. Startups come from around the world to participate in the program, drawn to the Rochester area for its wealth of expertise in science and technology and its deep network of medical facilities and academic institutions. To date, the Luminate program has helped more than 53 startups and invested \$12 million in their success. The companies have since raised over \$100 million, created 309 jobs, and grown to an estimated collective value of \$400 million, driving economic development in the Finger Lakes region.

Intelon Optics was one of the first medtech startups to participate in the Luminate program. Since it graduated four years ago, the company has established sales operations in Rochester and continued to use area resources to extend the value proposition of its technology.



Intelon Optics secured \$500,000 in follow-on funding at Luminate Finals 2018 as part of the accelerator's inaugural cohort of startups. (Photo provided)

“Guidance and advice from Luminate have been invaluable to Intelon’s growth,” said Lawrence Yoo, Chairman of the Board, Intelon Optics. “Not only did we receive investment from Luminate to implement our initial growth plan, but we also received much needed guidance on creating a framework for our company. From financing and business forecasting to HR, Luminate helped to educate us on the infrastructure necessary to be a “real” company.”

Incubator participants also benefit from close collaboration with other startups. NextCorps members meet monthly for peer-to-peer discussions and learnings. Luminate recently ran a point-of-care summit, which gave six companies the opportunity to share

what they were working on, discuss challenges, and share connections. This resulted in a partnership between two of the companies.

To help startups generate sales leads, Luminate also puts on technology webinars to give doctors and clinical staff a look at emerging technologies that can grow their practices. Demonstrations by Ovitz, AkknaTek, Intelon Optics, Lumedica Systems, and 2EyesVision showed how these startups are addressing the full spectrum of ophthalmology, including prevention, identification of eye disease, surgery and treatment, and ongoing management.

**A SYMBIOTIC ECOSYSTEM OF HEALTHCARE INNOVATION**

Incubators rely on a community of mentors, academics, experts,

and investors to fuel the success of medtech startups, and, in turn, contribute to the economic and intellectual environment of their region. This is true for NextCorps, which works closely with the University of Rochester, RIT, Cornell, and other institutions to connect its startups with research, specialized laboratory facilities, and other needed support.

In turn, these organizations rely on local incubators to help their students and faculty take ideas out of the lab into commercialization. Several medtech startups from the University of Rochester portfolio (UR Ventures) have participated in NextCorps programs, including WetWare BioSystems, Efferent Labs, Koning Health, LighTopTech, MedaCube/PharmaAdva, SiMPore, BetterMynd, and SIM (now called Viomerse). By harnessing the support of incubators and accelerator programs, medtech startups will continue to enhance wellness and change the way we prevent, diagnose, and treat diseases. To find out how you can get involved in our entrepreneurial community, visit [NextCorps.org](http://NextCorps.org).

*James Senall is president of NextCorps.*

