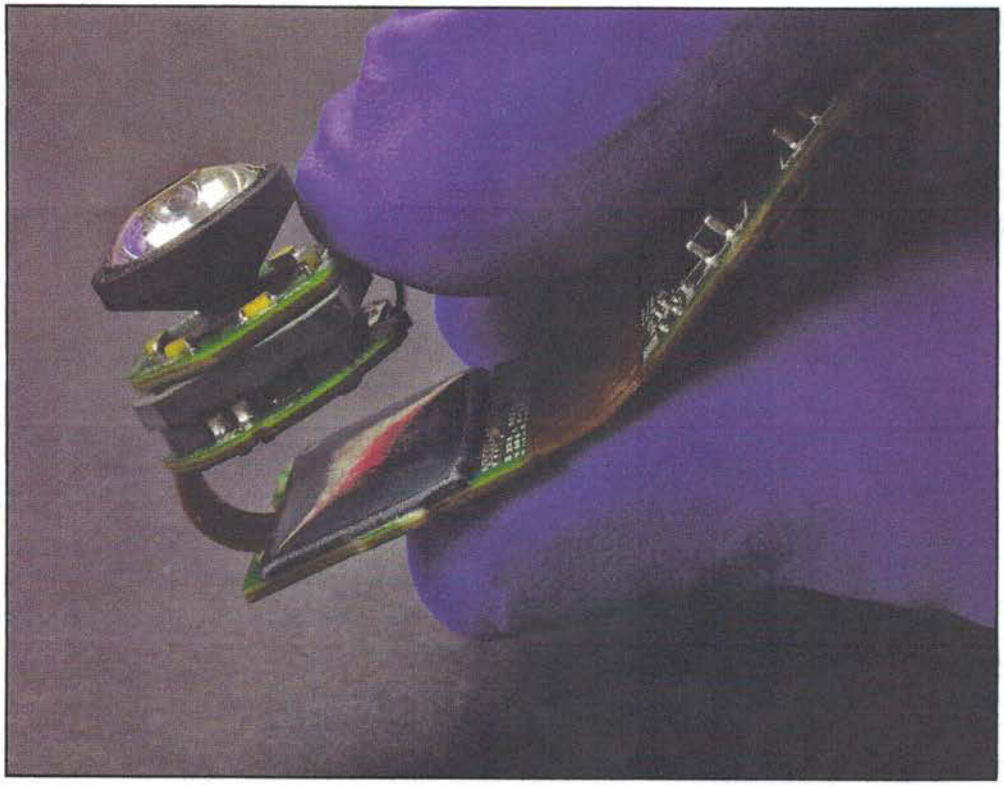
Advancing technology's leading edge



Mike Dobbs' eyes light up when he talks about the products being developed by Scientific & Biomedical Microsystems (SBM) at the Northeast Indiana Innovation Center in Fort Wayne.

"Every day we are presented with the opportunity and challenge to create new or better products or processes that ultimately improve the quality of human life," said Dobbs, SBM director of engineering for the growing Maryland-based company. "Nearly every product will be worn, implanted or ingested. All of them are high-performance, extremely compact widgets that use microscopic amounts of power.

"The technical work," he said, "is often at the leading edge of what's possible."

Many of the products are developed for the medical industry. SBM also serves clients in the ground transportation and aerospace industries, including the National Aeronautics and Space Administration.

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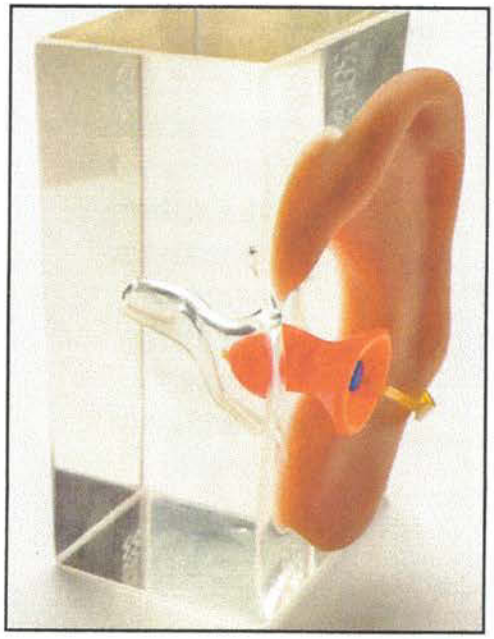
SBM is working on improving the technology and practitioner experience for an Innurvation Inc. endoscopy capsule that is swallowed by patients. As the capsule travels through the gastrointestinal tract, it continuously captures images in places that otherwise couldn't be reached without invasive surgery. The data is stored in a lightweight device worn by the patient and forwarded to the physician.

For the Howard Hughes Medical Institute SBM is building silicon probes to map the physical connections of the brain. SBM's efforts are part of an NIH initiative aimed at finding new ways to treat, cure and prevent brain disorders by learning more about how the brain rapidly records, processes, utilizes, stores and retrieves vast quantities of information.



For Diagnostic Biochips, under NIH funding SBM is developing an implantable probe to monitor the key biomarkers in at-risk patients, thereby allowing for personalized, more effective treatments.

The work requires a unique set of skills and interests among those developing the products at SBM, which has plans to increase its contingent of electronics engineers.

"We're looking for problem solving engineers with significant experience in scientific or medical instrumentation, wireless and energy-harvesting systems," Dobbs said.

Scientific & Biomedical Microsystems designs products for the medical, transportation and aerospace industries. At its Fort Wayne office, the company focuses on electronics and software development.

Perhaps most important, Dobbs said, is finding people who share the passion for working in a dynamic environment dedicated to developing complex systems in which miniaturization, low-power consumption and tight integration are the hallmarks.

It is the kind of groundbreaking science that is endemic to the legacy of Fort Wayne.

"We'd like to think we're carrying on a long, rich heritage of innovation in the area, which has been defined by pioneering work in radio, television and more recently weather satellite technology," Dobbs said. "Not only do we want to carry on that inventive spirit, but we'd like to expand the work to the robust orthopedics industry in northeast Indiana.

"This is really cool stuff," he said. "And it's stuff that makes a difference."

Scientific & Biomedical Microsystems
3201 Stellhorn Road, Fort Wayne
260.399.7631
www.sbmicrosystems.us

Services Provided: Electronics and software development