

News Release



NIH Awards Fannin Phase I SBIR Grant for Pediatric Stent Removal Device

HOUSTON, November 16, 2017 Fannin Innovation Studio has been awarded a \$224,692 grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to develop and test a novel medical device for removing ureteral stents in children. Awarded through the National Institutes of Health (NIH) Small Business Innovation Research (SBIR) program, the federal funds will be used to further development of a new device that is capable of removing ureteral stents in the physician’s office without the need for an additional surgery under general anesthesia.

Dr. Chester J. Koh, MD, a pediatric urologist at Texas Children’s Hospital and Associate Professor at Baylor College of Medicine, identified the need for a simpler way to remove stents in children after kidney surgery. Typically, the child must return to the hospital to have the stent removed via cystoscopy, a procedure that for children requires general anesthesia and additional operating room time.

Dr. Koh collaborated with an undergraduate engineering student team at Rice University’s Oshman Engineering Design Kitchen and Department of Bioengineering to create the initial prototype and conduct initial feasibility studies. The new device simplifies ureteral stent removal by utilizing a small magnetic bead and a precisely designed electromagnet to gently slide the stent out of a child’s body.

Recognizing the potential impact of the device for children, Fannin is bringing the technology under its management and is building a commercialization plan to bring the product to market. Fannin is an early-stage life-sciences commercialization firm that actively manages a portfolio of medical device and therapeutics startups. A core component of Fannin’s business model is the pursuit of non-dilutive grant funding to support early-stage development of life-science technologies.

“At Fannin Innovation Studio, we are exploring innovative ways to develop new technologies for children because the economic opportunity for pediatric devices is typically not large enough to attract traditional venture capital investment. Our partnership with Texas Children’s and Baylor College of Medicine is a model for how academic institutions and small businesses can work together to capital efficiently develop new medical solutions,” said Atul Varadhachary, Managing Partner at Fannin.

Cystoscopy, the standard procedure for stent removal, is well tolerated in the physician’s office in adults, but for children, it requires the use of an operating room and anesthesia personnel. If the

device is proven effective, this new innovation could avoid the risks associated with additional exposure to general anesthesia in children.

“The development of pediatric medical devices lags adult device development by more than ten years,” said Koh. “This is an important example of why academic partnerships are needed to advance pediatric medical device projects, since the pediatric medical device pipeline is currently limited. I applaud the Rice and Fannin Innovation Studio team members for showing their dedication and passion to the kids under our care at Texas Children’s.”

The non-invasive stent removal project is part of a larger collaboration between Fannin Innovation Studio, Texas Children’s Hospital, and Baylor College of Medicine to develop new technologies that target the pediatric population, a market that is largely overlooked by traditional innovation models.

“Fannin Innovation Studio and Texas Children’s have partnered to create an effective model for exploring new ideas in pediatrics. Through this partnership, we can address the innovation gap by creating a method to develop and de-risk new ideas in pediatrics in a cost-efficient way,” said James Hury, Director for Innovation Partnerships at Texas Children’s Hospital.

Fannin Innovation Studio, Texas Children’s Hospital, and Baylor College of Medicine plan to continue to explore this new model of medical device development to accelerate the pace of innovation in pediatrics. The SBIR Phase I grant from the NIDDK is the first step toward advancing the device to the clinic and will allow the team to further refine the device and perform pre-clinical studies that are critical for securing a larger SBIR Phase II grant.

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About Fannin Innovation Studio

Houston-based Fannin Innovation Studio is an early-stage life sciences development group focused exclusively on commercializing medical technologies. Fannin partners with life science innovators to co-found startup companies and provides a pooled management team, funding, and administrative support. To further bridge the commercialization gap, Fannin’s internship and fellowship programs provide aspiring entrepreneurs with hands-on development experience with its portfolio companies. For more information, visit www.FanninInnovation.com or email innovate@fannininnovation.com.

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