

OSF Ventures Invests in Device to Better Detect Middle Ear Infections

by Colleen Reynolds

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Middle ear infections are the leading cause of hearing loss, surgery, and antibiotic use, especially in children who are misdiagnosed up to half of the time using the current technology. Knowing there is a need for better tools to diagnose and treat ear infections, OSF Ventures is joining a \$5.2 million Series A investment in Champaign, Illinois based PhotoniCare Inc. and its TOMi™ Scope for non-invasive imaging of the middle ear.

Three other venture capital firms joined OSF Ventures in the investment round including i2E Ventures, Sony Corporation of America, and Dreamapact Ventures. The money will be used for further development of AI technology, and to ramp up sales, customer support, and provider reimbursement.

PhotoniCare recently received Food and Drug Administration (FDA) approval for the TOMi hand-held medical device. Since 2013, the medical device start-up has been developing technology invented at the University of Illinois Urbana-Champaign by the company's founders. Its new imager uses a novel application of lightwave technology known as Optical Coherence Tomography (OCT).

The hand-held device allows physicians, for the first time, to directly visualize fluid in the middle ear where ear infections reside. What's most impressive – the imager works even in the presence of wax – providing objective data for a diagnosis and treatment course. Clinicians who have used the imager say it will revolutionize the diagnosis and treatment of inner ear infections.

“Ear pain and concerns about hearing are one of the most common reasons parents take their children to the doctor. But, for decades, until now, technology to see inside the ear canal has not improved,” according to Mayank Taneja, Director of Venture Investments, OSF Ventures."

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He added, “Surgery and antibiotics are not always needed and we’re excited the TOMi Scope could reduce unnecessary care and costs for patients and families.” Taneja points out the investment also fits with OSF Ventures’ priorities of improving patient outcomes, enhancing patient experience, and reducing the cost of health care.

Children can suffer from recurring ear infections for six to 12 months before they are referred to an ENT specialist, and are often prescribed increasingly potent antibiotics during this time. More than one million tube surgeries to reduce fluid and pressure in the inner ear are performed in the US alone every year.

Melinda Cooling, OSF Vice President Advance Practice Providers/Chief Clinician Executive Saint Gabriel Digital Health said OSF HealthCare will pilot the digitally enhanced otoscope at a few of its OSF Urgent care locations to evaluate the equipment and workflow. “This could be a game-changer in improving our diagnosis and treatment so we’re excited to partner with PhotoniCare,” Cooling said. “The device

also has a video screen and can connect to other devices for easy viewing that will let providers visually show patients and parents of small children the extent of the problem and provide education about the best remedies.”

PhotoniCare co-founder & CEO Ryan Shelton is equally excited by the support from OSF HealthCare.

“At PhotoniCare we set out to solve the massive problem of frequent misdiagnosis of middle ear infections, and the overuse of antibiotics and referrals to surgery in children,” said Shelton. “We are excited to have the support of OSF Ventures which has a reputation for successful investments and we appreciate the partnership that will pilot the use of the TOMi Scope which will provide us with valuable feedback.”