



Materialise and University of Michigan Sign License Agreement for Life-Saving, 3D-Printed Tracheal Splints

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Collaboration opens the door for technology to help more infants diagnosed with life-threatening tracheobronchomalacia (TBM).

PLYMOUTH, Mich.--(BUSINESS WIRE)--Dec. 7, 2015-- A bioresorbable 3D-printed splint developed at the University of Michigan has saved the lives of four infants since 2013, thanks to FDA approval for Expanded Access to an investigational medical device. The infants were suffering from tracheobronchomalacia (TBM), a life-threatening congenital airway disorder.

Today, Materialise (NASDAQ:MTLS), has entered into an exclusive licensing arrangement with the University of Michigan to take the splint through clinical trials, in order to ultimately offer the newly granted [patent](#) in the marketplace. This marks a critical step towards bringing this technology to all children suffering from this condition.

Dr. Glenn Green and Dr. Scott Hollister of the University of Michigan used Materialise's Mimics Innovation Suite to model and construct these splints using CT scans of patient anatomy.

About 1 in 2,200 babies are born with TBM, which causes the trachea to periodically collapse. The tracheal splint, developed to save the lives of these children, is made with a biopolymer called polycaprolactone, a biodegradable material that is gradually absorbed into the infant's body tissue over time.

"Here at Materialise, we strongly believe in the transformative power of great collaborations, such as the one we have enjoyed these past two years with Dr. Green, Dr. Hollister, and all others who have contributed to this live-saving application of 3D printing," stated Bryan Crutchfield, Managing Director of Materialise USA. *"This collaboration is proof that when the right skill sets and technologies are combined, solutions can be found for problems once thought impossible."*

Founder and CEO of Materialise, Fried Vancaeren, added, *"It was the possibility to realize 3D-printing enabled medical applications that, in part, motivated me to start Materialise 25 years ago. Today, we are proud to offer an entire range of software and services that can help universities, research centers, medical device companies, and hospitals develop solutions that result in a better and healthier world, such as the treatment developed for children diagnosed with TBM. It has been an honor to work with the team at University of Michigan, who are using our Mimics Innovation Suite to truly show the impact that patient-specific, 3D-printed solutions can have on the lives of individuals."*

"This agreement is a critical step in our goal to make this treatment readily available for other children who suffer from this debilitating condition," Mott otolaryngologist Dr. Glenn Green says.

"We have continued to evolve and automate the design process for the splints, allowing us to achieve in two days what used to take us up to five days to accomplish," adds Scott Hollister, Ph.D., professor of biomedical Engineering and mechanical engineering. *"I feel incredibly privileged to be building products that surgeons can use to save lives."*

The U-M team hopes to next year open a clinical trial for 30 patients with similar conditions at C.S. Mott Children's Hospital.

About Materialise

With its headquarters in Leuven, Belgium, and branches worldwide, Materialise is a provider of Additive Manufacturing (AM) software solutions and sophisticated 3D printing services in a wide variety of industries, including healthcare, automotive, aerospace, art and design and consumer products. Materialise has been playing an active role in the field of AM since 1990, through its involvement in AM for industrial and medical applications, by providing biomedical and clinical solutions such as medical image processing and surgical simulations and by developing unique solutions for its customers' prototyping, production, and medical needs. For additional information, please visit: www.materialise.com.

About C.S. Mott Children's Hospital

University of Michigan C.S. Mott Children's Hospital is consistently ranked one of the best hospitals in the country. It was nationally ranked in all ten pediatric specialties in U.S. News Media Group's "America's Best Children's Hospitals," and among the 10 best children's hospitals in the nation by Parents Magazine. In December 2011, the hospital opened our new 12-story, state-of-the-art facility offering cutting-edge specialty services for newborns, children and women. To learn more, visit the Mott Children's Hospital website. <http://www.mottchildren.org/>

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