

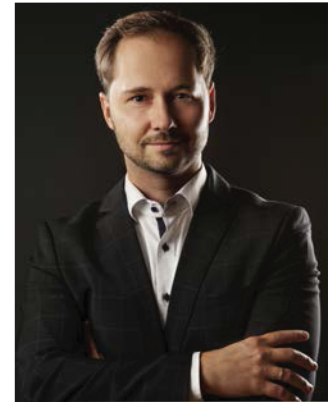
3 Things You Should Know About...

## Andreas Schriefl, PhD

Dr. Schriefl holds a Bachelor's, Master's, and Doctorate degree (with distinction) from Graz University of Technology, Austria, where he has a background in Engineering Physics and Biomedical Engineering. His academic work focused on experimental biomechanics, nonlinear optical imaging techniques and related computational data analysis. He innovated new techniques for extracting and quantifying the complex structure of human arterial walls and spent several months performing research at the Yale School of Engineering and Applied Science.

**1 HE LOVES TO MAKE SENSE OF "NOISY DATA."** Unstructured data is meaningless data. For example, listening to a heart-beat through a stethoscope is full of "data" inasmuch as the heart sounds can reveal murmurs that may indicate a need for treatment. But making sense of that data can be impossible because of all the other noise that is picked up by a stethoscope during auscultation, which is a 200-year-old "standard" examination method for screening of heart defects in patients of all ages. Auscultation, or listening to the heart, is often referred to as an art, since achieving a correct diagnosis can be challenging for various reasons, including noise, and is exclusively dependent on the medical professional's qualifications. "The accurate interpretation of heart sounds via traditional auscultation has become somewhat of a lost skill, often resulting in misdiagnosis of heart disease and consequently driving up associated, already excessive, costs," says Dr. Schriefl.

**2 HE HAS MADE HEART LISTENING A SCIENCE.** Dr. Schriefl and his team have developed eMurmur for automated heart sound analysis, also known as computer-assisted auscultation (CAA). Physicians such as cardiologists who have tested eMurmur say it has the potential to become a cost-effective tool in both primary care and clinical settings. "We have vigorously tested and validated eMurmur," says Dr. Schriefl. "We are certain that we have developed the world's most perceptive analytical engine for the objective and accurate identification of pathological heart murmurs. Since the invention of the stethoscope in 1816, the available 'technology' has changed very little, and the screening of heart defects has only been done through subjective listening. We have established eMurmur's robustness based on our Machine Intelligence analytical engine's ability to handle highly variable and noisy real-life data. eMurmur's user-friendliness in a busy clinical setting is key for efficient workflow integration."



Dr. Andreas Schriefl, CEO

**3 HE HAS POSITIONED CSD LABS FOR GREAT SUCCESS.** eMurmur's utility in assessing murmurs has been confirmed through excellent results from the largest blinded clinical validation study ever conducted for this kind of technology. The study was performed at a prestigious U.S. medical institution, and results are currently being prepared for publication in a peer-reviewed medical journal. "We believe eMurmur is going to standardize, and therein revolutionize, detection of heart defects by helping physicians accurately identify what they're hearing. Patients will benefit, medical professionals will benefit, and the healthcare system will save money."