

## **Richard A. Barth, MD**

Richard A. Barth, MD / Radiologist-in-Chief Pediatric Radiology at the Lucile Packard Children's Hospital / Professor of Radiology / Associate Chairman, Stanford University School of Medicine

Dr. Barth joined the Department of Radiology, Stanford University in 1992. He became Radiologist-in-Chief of Pediatrics in 2003.

Dr. Barth is a board certified pediatric radiologist and have served as Radiologist-in-Chief at the Lucile Packard Children's Hospital at Stanford University since 2003. Dr. Barth has also serve as the Fetal MRI Medical Director at the Lucile Packard Children's Hospital. Dr. Barth was the 2014 President of the Society for Pediatric Radiology and in 2014-2015, served as Chair of the Society for Pediatric Radiology Board of Directors. In my role as a leader in pediatric radiology, Dr. Barth has achieved expertise for a broad range of imaging tools including MRI, computed tomography, nuclear medicine, ultrasound, and x-ray. Dr. Barth has an excellent understanding of the strengths and weaknesses of imaging modalities and specifically the challenges unique to the pediatric and fetal populations. The challenges for routine application of imaging procedures in children include significant physiological differences compared to adults, including rapid respiratory and cardiac rates, inability to cooperate and hold still, and limitation in the types and volume of intravenous contrast that can be administered. In addition, children are biologically more sensitive than adults to the potential adverse sequela resulting from radiation exposure. But the physiologic differences in radiation sensitivity mandate the development and application of dedicated techniques in imaging algorithms to serve the best needs of children.

In Dr. Barth's role as a pediatric imager, he has focused on improving the accuracy of diagnosis balanced with minimizing radiation exposure for children undergoing imaging studies. For example, Dr. Barth led the development and implementation of staged ultrasound, CT, and MRI imaging protocols to improve the accuracy of diagnosis and minimize radiation exposure for children suspected to have appendicitis. In his role as a fetal imager, Dr. Barth has ongoing collaborations with Drs. Shreyas Vasanawala, Erika Rubesova, Yair Blumenfeld, and Jane Cheuh for the development of ultrasound and MRI imaging algorithms for optimal diagnosis and management of fetal anomalies.