

# March 6 FORUM



Connecting Medical Technology Professionals

In Collaboration With



# Life Saving Medical Imaging and Diagnostic Innovations

## Wednesday

March 6, 2019

5:30 – 8:30 PM

MDG Boston Events are held at the

Fine Arts Center  
Regis College  
235 Wellesley St.  
Weston, MA

## Event Sponsors



### UPCOMING FORUM

April 17

The Troubling  
Economics of the US  
Health Care System

## Premier Sponsors



- *3-D mammography finds malignant tumors hiding behind milk ducts*
- *Ultrasonic echocardiography spots coronary artery plaques before they break and kill you*
- *High resolution digital imaging inside the kidney sees stones and aids their removal*
- *Thermo Acoustic Enhanced Ultrasound detects Non-Alcoholic Fatty Liver Disease early*

### These advances in medical imaging

- **reduce the need for some surgeries**
- **reduce false negatives to save lives**
- **reduce the total cost of care**

### Program Description

Mammography has dramatically reduced breast cancer mortality since becoming a recommended routine health screening. However, conventional 2D mammography missed many cancers in breasts with little radiolucent fat (dense breasts). It also required workups in women without disease.

3-D imaging in the human body, with CT and MRI, is a well-established method of medical imaging, but is expensive and produces a much higher radiation dose than the new 3D mammography (breast tomosynthesis) methods.

Multiple clinical trials of 3D breast imaging demonstrated improved cancer detection, especially in denser breasts, while also reducing the false positive workups needed in women without disease. **Andrew Smith, PhD, VP of R&D, Breast Health Division of Hologic**, will discuss the science, technology and clinical advantages of their 3-D breast imaging technology.

Increased use of catheter-based approaches in diagnosing and treating heart disease have increased demand for improved ultrasonic



imaging techniques, such as locating the imaging device in the esophagus adjacent to the heart.

Developed at Philips and tested at the Cardiovascular Division of Brigham and Women's Hospital in Boston, transesophageal and transthoracic echocardiography were compared clinically by **Alexandra Goncalves, MD, PhD, Senior Medical Director of Cardiology for the Philips Ultrasound Business Group**.

Boston Scientific is eliminating the operational inefficiencies and cost of reusable ureteroscopes, with LithoVue, a single-use digital flexible ureteroscope. LithoVue delivers detailed high resolution digital images for high quality visualization and navigation – to help urologists remove stones quickly, easily, safely and affordably. **Sarah Foley manages an R&D team in the Urology and Pelvic Health division at Boston Scientific** developing new visualization techniques.

By detecting tiny pressure changes deep within tissues, ENDRA's Thermo Acoustic Enhanced Ultrasound (TAEUS) will enable clinicians to visualize tissue composition, function and temperature in ways previously possible only on CT & MRI -- at 50X lower cost, at the point of care with existing ultrasound equipment, all without using ionizing radiation or contrast agents. **ENDRA CEO Francois Michelin, MBA**, took the company through a 2017 IPO and secured a strategic partnership with GE Healthcare.

## Presenters



### Sarah Foley, MS

*R&D Manager, Visualization Urology & Pelvic Health  
Boston Scientific*

Sarah Foley manages an R&D team in developing new visualization products to treat stone disease and co-leads a cross-functional franchise team that is responsible for the execution of the Visualization portfolio strategy.

She has 10+ years of experience leading cross-functional teams in design and development of leading edge products across the Aerospace, Energy and Medical Device industries. She worked on programs across the product lifecycle, from requirements development and system design to testing and verification.



### Alexandra Goncalves, MD, PhD, MMSc, FESC

*Senior Medical Director, Cardiology,  
Ultrasound Philips*

Dr. Goncalves leads the evaluation of key medical trends for the Cardiology Business within the Ultrasound Business Group. She provides leadership and guidance on the design, implementation, monitoring and interpretation of clinical evaluations and testing of new developments. In addition, she provides insights on

the diagnostic potential of various clinical opportunities in the context of clinical and regulatory dynamics from a global perspective. She partners with clinical, scientific, regulatory and marketing leaders around the globe.

Dr. Goncalves is a world-renowned expert in echocardiography. Her past experience includes research in epidemiology and new clinical applications for echocardiography in the Cardiovascular Department at the Brigham and Women's Hospital/ Harvard Medical School (HMS).



### Francois Michelin, MBA

*CEO & Board Chair at ENDRA Life Sciences*

20 years of healthcare technology start-up, private-equity and Fortune 20 experience, spanning diagnostic imaging, surgical equipment, orthopedic and dental sectors. Expertise in raising capital in the private and public markets, and building businesses across capital products, implantable devices and services.

ENDRA's Thermo Acoustic Enhanced Ultrasound (TAEUS) will enable clinicians to visualize tissue composition, function and temperature in ways previously possible only on CT & MRI -- at 50X lower cost, at the point of care. ENDRA's first clinical application targets early detection of Non-Alcoholic Fatty Liver Disease (NAFLD), affecting over 1 billion people globally.



### Andy Smith, PhD

*Vice President of Image Research, Hologic, Inc*

Andy Smith has been involved in medical imaging research and development for over 30 years, with a current focus on advanced breast imaging technologies such as tomosynthesis.

He lectures widely around the world on breast imaging

and physics, and is a co-author on over 50 patents and patent applications. Prior to Hologic he was VP and a co-founder of Digital Scintigraphics, a company that developed and sold high resolution nuclear medicine neuroimaging systems. He received his B.S. and Ph.D. degrees in physics from the Massachusetts Institute of Technology in Cambridge, Massachusetts, USA.

## Co-Champions



### Jerry Shapiro, PhD Moderator

*Pres and CEO FEM-Medical, Pres. Floelle, Inc.  
MDG Boston Board Member*

Dr. Shapiro was the first person at Boston University with an earned doctorate in Bioengineering, cofounder of their Department of Biomedical Engineering, Principal Investigator on many NIH grants, Director of two laboratories in glaucoma and ocular physiology and held the positions of Research Scientist, and Associate Professor of Surgery, Medicine, Ophthalmology and Biomedical Engineering.

As an MDG leader, Jerry has the opportunity to work with an amazing group of talented and caring medical device professionals who support entrepreneurial thinking and exploring new business opportunities.



### Co-Champion

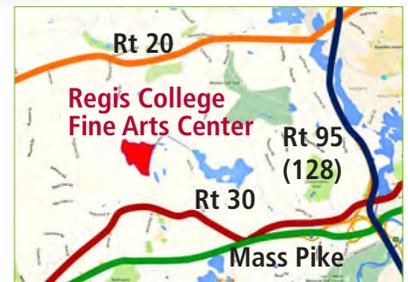
#### Andrea Cahill

*Electrical Engineer  
Boston Scientific  
MDG Boston Board Member*

### MDG Forum Fees

(Includes light dinner)

	Early Reg. Feb 30	Week Prior Feb 30 - Mar 6	At the Door Mar 6
MDG Members	\$30	\$35	\$45
Non-Members	\$45	\$55	\$65
Students	\$10	\$12	\$15
Student Non-Member w/ID	\$15	\$18	\$20



**Easy Online Registration** [www.mdgboston.org](http://www.mdgboston.org) (Pre-Register by February 30 & Save \$ )

If you have any comments regarding this forum, please send them to [MDGforums@MDGboston.org](mailto:MDGforums@MDGboston.org)