

2026 RCBU Biomedical Ultrasound Symposium Day

THURSDAY, NOVEMBER 12, 2026
8:00AM-5:00PM

RICHARD FELDMAN BALLROOM
FREDERICK DOUGLASS COMMONS
UNIVERSITY OF ROCHESTER
RIVER CAMPUS
ROCHESTER, NY

Zoom link for live broadcast: https://rochester.zoom.us/j/95559099785

Support for the RCBU Biomedical Ultrasound Symposium is provided by the Edwin and Pam Carstensen Family Endowment, the Rochester Center for Biomedical Ultrasound, and the Department of Biomedical Engineering at the University of Rochester.

2026 RCBU BIOMEDICAL ULTRASOUND SYMPOSIUM DAY

AGENDA

Thursday, November 12, 8am–5pm

8:00AM — **Arrive and Continental Breakfast**

8:45-9:00AM — **Welcome & Introduction of Distinguished Lecturer**
Diane Dalecki, Ph.D.
The Kevin J. Parker Distinguished Professor in Biomedical Engineering
Director, Rochester Center for Biomedical Ultrasound
Department of Biomedical Engineering, University of Rochester

9:00-10:00AM — **Distinguished Kevin J. Parker Lecture in Ultrasound Innovation**
Seeing is Feeling – Imaging the Elastic Properties of Tissues for the Diagnosis of Disease and Therapy Monitoring
Elisa E. Konofagou, Ph.D.
The Robert and Margaret Hariri Professor of Biomedical Engineering,
Professor of Radiology, and Professor of Neurological Surgery
Columbia University

10:00-10:05AM — **Break**

10:05-10:45AM — **Trainee Presentations**
Moderator: Stephen A. McAleavey, Ph.D.
Chair and Professor of Biomedical Engineering
University of Rochester

10:45-11:00AM — **Introduction of Distinguished Edwin L. Carstensen Lecturer**
Diane Dalecki, Ph.D.

11:00-NOON — **Distinguished Edwin L. Carstensen Lecture**
How Tiny Bubbles Make a Big Difference
J. Brian Fowlkes, Ph.D.
Professor of Radiology, Professor of Biomedical Engineering
University of Michigan

NOON-1:15PM — **Lunch, Scientific Posters, and Networking**

1:15-1:30PM — **Introduction of Distinguished RCBU Alumni Lecturer**
Diane Dalecki, Ph.D.

1:30-2:30PM — **Distinguished RCBU Alumni Lecture**
Musings in Biomedical Ultrasound – Contrast Enhanced Imaging and Therapy Monitoring
Himanshu Shekhar, Ph.D.
Associate Professor of Electrical Engineering
Indian Institute of Technology (IIT) Gandhinagar

2:30-3:15PM — **Trainee Presentations**
Moderator: Stephen A. McAleavey, Ph.D.
Chair and Professor of Biomedical Engineering
University of Rochester

3:15-5:00PM — **Poster Session and Networking**

DISTINGUISHED LECTURERS



Distinguished Kevin J. Parker Lecture in Ultrasound Innovation
Elisa E. Konofagou, Ph.D.
The Robert and Margaret Hariri Professor of Biomedical Engineering, Professor of Radiology, and Professor of Neurological Surgery, Columbia University

Elisa Konofagou, Ph.D. is the Robert and Margaret Hariri Professor of Biomedical Engineering and Professor of Radiology and Neurosurgery at Columbia University in New York City. She is an internationally recognized leader and expert in the development of novel imaging, theranostic, and therapeutic ultrasound methods for the advancement of therapeutic ultrasound, and she is the Director of the Ultrasound and Elasticity Imaging Laboratory at Columbia University. Dr. Konofagou serves as the current President of the International Society of Therapeutic Ultrasound (ISTU) and her scientific and engineering advances are widely recognized. She is a Member of the National Academy of Medicine, Fellow of the National Academy of Inventors (NAI), Distinguished Investigator of the Academy of Radiology and Biomedical Imaging Research, and Elected Fellow of the International Society of Electrical and Electronic Engineering (IEEE), the American Institute of Biological and Medical Engineering (AIMBE) and the Acoustical Society of America (ASA).

Seeing is Feeling – Imaging the Elastic Properties of Tissues for the Diagnosis of Disease and Therapy Monitoring
Ultrasound has been in the clinic as an imaging and therapeutic modality for over four decades. Elasticity imaging has been capable of expanding the role of ultrasound imaging in the clinic by providing quantitative information on the underlying mechanical properties. Emphases of this presentation will be given on cancer and cardiovascular elasticity imaging techniques.



Distinguished Edwin L. Carstensen Lecture
J. Brian Fowlkes, Ph.D.
Professor of Radiology and Professor of Biomedical Engineering
University of Michigan

J. Brian Fowlkes, Ph.D. is Professor of Radiology and Professor of Biomedical Engineering at the University of Michigan. He is an international leader in biomedical ultrasound and his innovative work spans applications for ultrasound in medical imaging and therapy. His work includes studies of ultrasound contrast agents and acoustic droplet vaporization for bubble production in diagnostic and therapeutic ultrasound and drug release, effects of gas bubbles in high intensity ultrasound including histotripsy and volume blood flow estimation, and other quantitative methods using ultrasound. Dr. Fowlkes is a Fellow and past-president of the American Institute of Ultrasound in Medicine (AIUM), and a Fellow of the American Institute of Medical and Biomedical Engineering (AIMBE), the Acoustical Society of America (ASA), the American Association of Physicists in Medicine (AAPM), and the Institute for Electrical and Electronics Engineers (IEEE).

How Tiny Bubbles Make a Big Difference
Despite their size, microscopic bubbles are having an enormous medical impact. We can now use bubble-based contrast agents for diagnostics including measuring pressure and assessing urinary obstruction and therapies such as stimulating blood-vessel growth. Even without injecting bubbles, we can precisely destroy diseased tissue using acoustic cavitation. From contrast imaging to FDA-cleared histotripsy, these technologies are transforming noninvasive diagnosis and treatment across medicine.

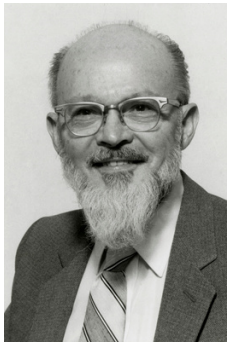


Distinguished RCBU Alumni Lecture
Himanshu Shekhar, Ph.D.
Associate Professor of Electrical Engineering
Indian Institute of Technology (IIT) Gandhinagar

Himanshu Shekhar, Ph.D. is an Associate Professor of Electrical Engineering at the Indian Institute of Technology (IIT) Gandhinagar, India, where he co-leads the Medical Ultrasound Engineering (MUSE) Laboratory. He obtained a B.S. in Electronics and Communication Engineering from Manipal Institute of Technology, a M.S. and Ph.D. in Electrical Engineering from the University of Rochester, and he completed postdoctoral training at the University of Cincinnati College of Medicine. Dr. Shekhar's research focuses on image-guided therapy, sonodynamic therapy, contrast agents, beamforming, and sensing. Dr. Shekhar has been recognized with the F.V. Hunt Postdoctoral Fellowship, the Har Gobind Khorana Innovative Young Biotechnologist Award from the Government of India, the Star Ambassador Lectureship Award from the IEEE, and the Frederick Lizzi Early Career Award from the International Society for Therapeutic Ultrasound.

Musings in Biomedical Ultrasound – Contrast Enhanced Imaging and Therapy Monitoring
In this talk, I will discuss our efforts in nonlinear signal processing and super-resolution ultrasound techniques to enhance the visualization of ultrasound contrast agents and gas vesicles. Next, I will discuss active and passive cavitation imaging for therapeutic monitoring of histotripsy ablation. Overall, these approaches have important applications in diagnosis and therapy.

THE EDWIN AND PAM CARSTENSEN FAMILY ENDOWMENT



The Edwin and Pam Carstensen Family Endowment was established to honor the legacy of Edwin L. Carstensen and ensure that his vision of the Rochester Center for Biomedical Ultrasound endures. Edwin L. Carstensen was a pioneer in the field of biomedical ultrasound and internationally recognized throughout his career for his advances in understanding the interaction of ultrasound fields with biological tissues. He was the Founding Director of the Rochester Center for Biomedical Ultrasound (RCBU), a multidisciplinary research center dedicated to advancing the use of biomedical ultrasound in imaging and therapy. Professor Carstensen, the Arthur Gould Yates Professor Emeritus of Engineering, was a member of the Department of Electrical and Computer Engineering at the University of Rochester for over fifty years. Professor Carstensen was a member of the National Academy of Engineering, and his outstanding scientific achievements were widely recognized with numerous awards and honors. The fund was enabled by a generous seed gift from the Carstensen family.



To contribute to the Edwin and Pam Carstensen Family Endowment, please contact Derek Swanson at derek.swanson@rochester.edu or 585.273.1341.

PAST RCBU BIOMEDICAL ULTRASOUND SYMPOSIUM DISTINGUISHED LECTURERS

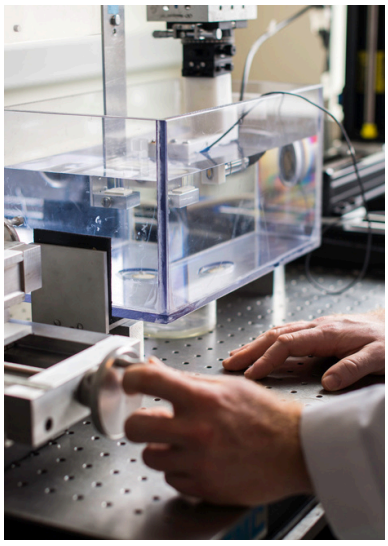
Distinguished Edwin L. Carstensen Lecture

2018 Frederick W. Kremkau Ph.D.
2019 Michael Bailey, Ph.D.
2021 Kevin J. Parker, Ph.D.
2022 Kathy Nightingale, Ph.D.
2023 Stanislav Emelianov, Ph.D.
2024 Timothy Hall, Ph.D.
2025 Christy K. Holland, Ph.D.

Distinguished RCBU Alumni Lecture

2018 Theresa Tuthill, Ph.D.
2019 Benjamin Castañeda Aphan, Ph.D.
2021 Maggie Zhang, M.D., Ph.D.
2022 Manoj Menon, Ph.D.
2023 Thomas Szabo, Ph.D.
2024 Karla P. Mercado-Shekhar, Ph.D.
2025 Jonathan Langdon, M.D., Ph.D.

THE ROCHESTER CENTER FOR BIOMEDICAL ULTRASOUND



The Rochester Center for Biomedical Ultrasound (RCBU) was created at the University of Rochester to unite professionals in engineering, medical, and applied science communities at the University of Rochester, Rochester General Hospital, and the Rochester Institute of Technology. Since its founding in 1986, the RCBU has grown to nearly 100 members, with several visiting scientists from locations around the world. The Center provides a unique collaborative environment where researchers can join together to investigate the use of high frequency sound waves in medical diagnoses and therapy. RCBU laboratories provide a rich environment for graduate training in biomedical ultrasound where students have access to state of-the-art research facilities in order to engage in leading-edge research in ultrasound. For more information on the RCBU or on graduate training opportunities, please contact RCBU Director Diane Dalecki at dalecki@bme.rochester.edu or visit our website at **rochester.edu/rcbu.**