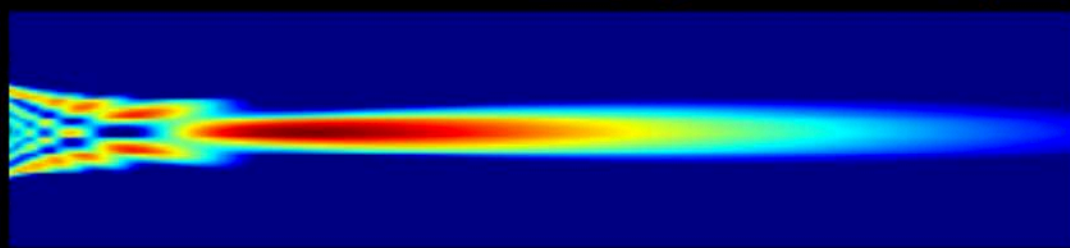
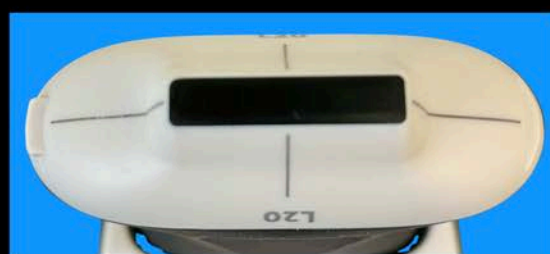




University
of Rochester
Rochester Center for
Biomedical Ultrasound



2025 RCBU Biomedical Ultrasound Symposium Day

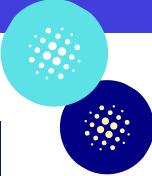


THURSDAY, NOVEMBER 13, 2025
8:00AM-5:00PM

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

Zoom link for live broadcast: <https://rochester.zoom.us/j/96523266232>

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.

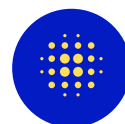


AGENDA

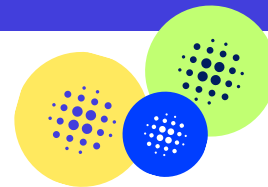
2025 RCBU BIOMEDICAL ULTRASOUND SYMPOSIUM DAY

Thursday, November 13, 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 Edwin L. Carstensen Lecture
<i>Ultrasound Image-Guided Therapies to Treat Cardiovascular Disease</i>
Christy K. Holland, Ph.D.
Professor, Internal Medicine, Division of Cardiovascular Health and
Disease, Biomedical Engineering, University of Cincinnati |
| 10:00-10:05AM | Break |
| 10:05-11:15AM | Trainee Presentations
Moderator: Stephen A. McAleavey, Ph.D.
Chair and Associate Professor of Biomedical Engineering
University of Rochester |
| 11:15-NOON | Hot Topic: Novel Applications of Wearable Ultrasound in Rehabilitation
Siddhartha Sikdar, Ph.D.
Distinguished University Professor of Bioengineering, Director of the
Center for Advancing Systems Science and Bioengineering Innovation,
George Mason University |
| 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
<i>Perspectives on Clinical and Translational Ultrasound: Current Challenges
and Goals for the Future</i>
Jonathan Langdon, M.D., Ph.D.
Assistant Professor of Radiology, Co-Section Chief of Ultrasound,
Yale University |
| 2:30-3:00PM | Trainee Presentations
Moderator: Stephen A. McAleavey, Ph.D.
Chair and Associate Professor of Biomedical Engineering
University of Rochester |
| 3:00-5:00PM | Poster Session and Networking |



DISTINGUISHED LECTURERS



Distinguished Edwin L. Carstensen Lecture

Christy K. Holland, Ph.D.

Professor, Internal Medicine, Division of Cardiovascular Health and Disease, Biomedical Engineering, University of Cincinnati

Dr. Christy K. Holland is a Professor in both the College of Medicine and the College of Engineering and Applied Sciences at the University of Cincinnati, with appointments in the Department of Internal Medicine, Division of Cardiovascular Health and Disease, and the Department of Biomedical Engineering. She serves as Vice Chair of Basic Research in the Department of Internal Medicine and holds the Hanna Endowed Chair as Interim Director of the Center for Cardiovascular Research. She is an internationally recognized leader and expert in acoustic cavitation and the advancement of diagnostic and therapeutic ultrasound. Professor Holland directs the Image-guided Ultrasound Therapeutics Laboratories in the UC Cardiovascular Center, which focus on applications of biomedical ultrasound including sonothrombolysis, ultrasound-mediated drug and bioactive gas delivery, development of echogenic liposomes, and ultrasound-image guided thrombus ablation using high-amplitude pulsed ultrasound (histotripsy). She served as Editor-in-Chief of Ultrasound in Medicine and Biology from 2006–2021, and as President of the Acoustical Society of America from 2015–2017. In recognition of her outstanding contributions to the field, Professor Holland has been named a Fellow of the Acoustical Society of America, the American Institute of Ultrasound in Medicine, the American Institute for Medical and Biological Engineering, and the Executive Leadership in Academic Medicine®.

Ultrasound Image-Guided Therapies to Treat Cardiovascular Disease: Cardiovascular disease is the number one cause of death worldwide and thrombo-occlusive disease is a leading cause of morbidity and mortality. Therapeutic ultrasound strategies to deliver drugs and bioactive gases for the treatment of cardiovascular disease will be discussed, with a special emphasis on acoustic cavitation and radiation force mechanisms.



Distinguished RCBU Alumni Lecture

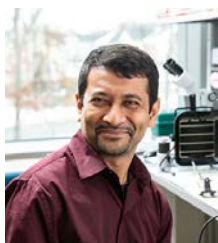
Jonathan Langdon, M.D., Ph.D.

Assistant Professor of Radiology, Co-Section Chief of Ultrasound, Yale University

Dr. Jonathan Langdon is an Assistant Professor of Radiology and Co-Section Chief of Ultrasound at Yale University. He received both his MD and PhD in Biomedical Engineering from the University of Rochester, where his doctoral work on ultrasound elastography was recognized with the Outstanding Dissertation Award. He completed residency training in Radiology and fellowship in Body Imaging at Yale-New Haven Hospital and joined the Yale School of Medicine faculty in 2023.

Dr. Langdon's research spans ultrasound elasticity imaging, machine learning applications in radiology, and translational ultrasound technologies. In addition to his scholarly work, he is actively involved in resident education and departmental quality initiatives. Through his clinical, research, and service contributions, Dr. Langdon aims to advance the role of ultrasound as a dynamic and evolving imaging modality within modern healthcare.

Perspectives on Clinical and Translational Ultrasound: Current Challenges and Goals for the Future: Ultrasound remains a vital, accessible imaging modality but faces challenges of fragmented practice, evolving technologies, and rising clinical demands. This lecture will review current obstacles—including contrast-enhanced ultrasound, elastography, fat quantification, and AI—and highlight strategies to align clinical practice and research innovation for the future of ultrasound.



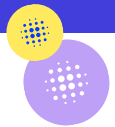
Hot Topic Lecture

Siddhartha Sikdar, Ph.D.

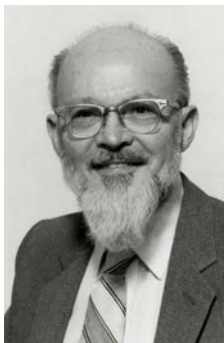
Distinguished University Professor of Bioengineering; Director, Center for Advancing Systems Science and Bioengineering Innovation, George Mason University

Professor Siddhartha Sikdar is a Distinguished University Professor of Bioengineering at George Mason University and Director of the Center for Advancing Systems Science and Bioengineering Innovation. He leads an interdisciplinary research group that conducts translational and applied research using novel biomedical imaging and sensing technologies. In particular, he is studying the interactions between the central and peripheral nervous system and the musculoskeletal system in a number of clinical conditions of major public health significance, such as chronic pain, stroke, spinal cord injury, and amputation. His research has potential applications in noninvasive diagnosis, screening, and treatment monitoring, understanding underlying mechanisms of disease, and for developing assistive technologies to improve function and quality of life in individuals with disability. Professor Sikdar has been a recipient of the NSF CAREER Award, the Volgenau School of Engineering Rising Star Award, and Mason's Emerging Researcher/Scholar/Creator Award.

Novel Applications of Wearable Ultrasound in Rehabilitation: This talk will describe how recent disruptive advances in wearable ultrasound technology can enable new applications in rehabilitation to address critical gaps in diagnosis, monitoring and treatment of leading causes of disability, as well as enable novel methods for investigating mechanisms of neuromuscular coordination, control and adaptation.



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

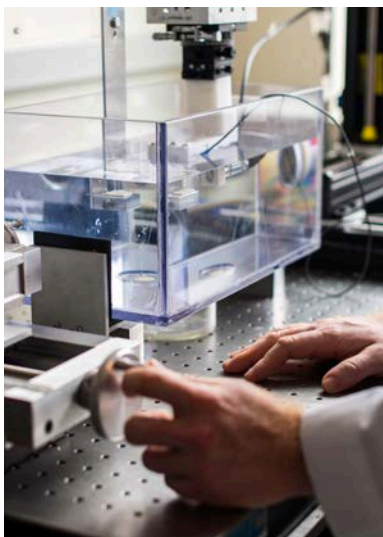
Distinguished Edwin L. Carstensen Lecture

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.

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, 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.

