CASE WESTERN RESERVE UNIVERSITY
Case Comprehensive Cancer Center

NCI Comprehensive Cancer Center
A Cancer Center Designated by the National Cancer Institute

University Hospitals

Cleveland Clinic

SEMINAR SERIES

Presented by the Cancer Imaging Program

****LOCATION CHANGE****

OCT 9, 2026

12:00 p.m.

Biomedical Research Building
Auditorium (BRB 105)
2109 Adelbert Road
Cleveland, OH 44106

Ultrasound Theranostics: Integrating Noninvasive Therapy and High-Resolution Imaging for Precision Cancer Care

Ning Lu, PhD

Assistant Professor in Biomedical Engineering, Case Western Reserve University

Dr. Ning Lu is an ultrasound scientist, with a career mission to develop better ultrasound technologies to address urgent unmet clinical needs. She earned her PhD in Biomedical Engineering and Scientific Computing from the University of Michigan and completed postdoctoral training in Radiology at Stanford University. Before joining CWRU, she also spent a year in industry as a senior R&D engineer developing clinical ultrasound scanners. Her research unites two aspects of biomedical ultrasound under a single "theranostic" vision: histotripsy, a non-thermal, non-ionizing focused ultrasound therapy that mechanically destroys tumor tissue through acoustic cavitation, and ultrafast ultrasound imaging, which enables high-resolution structural and functional imaging in real time. By combining precision therapy with advanced imaging in a single platform, her lab aims to enable image-guided, noninvasive cancer treatment with real-time targeting and monitoring. This talk will highlight Dr. Lu's work on transcranial histotripsy for noninvasive brain tumor treatment and ultrafast ultrasound imaging using large-aperture arrays, to show recent advancements in improving both the therapeutic and diagnostic capability of ultrasound.

case.edu/cancer/events/seminar-series

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Case Western Reserve University School of Medicine designates this live activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.