





**Rebecca Irwin**  
Visiting Professor  
Joining UR BME in July 25





**Cerebral Focal Stroke Causes Increased Incidence of Non-Flowing Capillaries Hundreds of Micrometers into the Adjacent Microvasculature**


Presenting Author: Rebecca Irwin, PhD – Cornell University  
Co-Author: Lianne Trigiani – Cornell University  
Co-Author: Robert Hawkins – Cornell University  
Co-Author: David Boas – Boston University  
Co-Author: Nozomi Nishimura – Cornell University  
Last Author: Chris B. Schaffer, PhD – Cornell University



**Talk - Neural Engineering Engineering - Neuroimaging**  
Saturday, Oct. 26, 8:30 - 8:45 AM  
Location: Room 315

**Rebecca Irwin**  
Visiting Professor  
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**Medial cartilage defect drives matrix and cell pathology in compartment-matched meniscus**

Presenting Author: Rebecca Irwin, PhD – Cornell University  
Co-Author: Serafina Lopez, MS – Cornell University  
Co-Author: John Dankert – New York University  
Co-Author: James Butler, MB BCh – New York University  
Co-Author: John G. Kennedy, MD, MCh, MMSc, FFSEM, FRCS (Orth) – NYU Langone Health  
Co-Author: Lawrence Bonassar, PhD – Cornell University



**Poster AA5 - Orthopedic and Rehabilitation Engineering, Poster Session E**  
Saturday, Oct. 26, 10:00 - 11:00 AM  
Location: Exhibit Hall E, F & G




**Yeidi N. Yuja Vaquiz**  
Undergraduate Student



**Ultrasound and Photoacoustic Guided Gastrostomy to Prevent Colonic Injury**

Presenting Author: Yeidi N. Yuja Vaquiz – University of Rochester  
Co-Author: David Bustamante – University of Rochester  
Co-Author: Samuel John, PhD – MD Anderson Cancer Center  
Co-Author: Nikhila Nyayapathi, PhD – URMCM  
Co-Author: Yan Yan, PhD – URMCM  
Co-Author: Anoop Nilam – AstraZeneca  
Co-Author: Jonathan Lovell, PhD – University at Buffalo  
Co-Author: Loay Kabbani, MD – Henry Ford Health System  
Co-Author: Nicole Wilson, PhD, MD – Univ. of Rochester  
Primary Investigator: Mohammad Mehrmohammadi, URMCM SMD



**Poster F9 Biomedical Imaging and Instrumentation - Poster Session D**  
Saturday, Oct. 26, 10:00 - 11:00 AM  
Location: Exhibit Hall E, F & G




**Julia Rothschild**  
Undergraduate Student




**Testing of nanoporous silicon-nitride membrane ultrafiltration for hemodialysis**


Presenting Author: Julia Rothschild – Univ. of Rochester  
Co-Author: Maria F. Presti, PhD – University of Rochester  
Primary Investigator: Dean G. Johnson, PhD – Univ. of Rochester



**Poster K4 Nano and Micro Technologies - Poster Session E**  
Saturday, Oct. 26, 10:00 - 11:00 AM  
Location: Exhibit Hall E, F & G

**Martha J. Gdowski**  
Associate Professor



**Empowering Biomedical Engineers: Advancing Human Anatomy Education through Experiential Learning with Medical Devices**

Co-Author: Greg Gdowski, PhD – University of Rochester  
Presenting Author: Martha J. Gdowski, PhD – University of Rochester School of Medicine and Dentistry



**Platform Session Biomechanics - Platform Session**  
Saturday, Oct. 26, 12:45 - 1:00 PM  
Location: Room 340




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Date & Time	Presenter	Title / Affiliation	Type	Title
Thursday, Oct. 24 8:45 -9:00 AM Room 339	Rebecca Irwin	Faculty (Visiting) Joining UR BME in July 2025	Talk, Orthopedic and Rehabilitation Engineering: Articular Cartilage, Meniscus, and Joints	Delayed lubricin injection improves cartilage repair in an in vivo rabbit osteo-chondral defect model
Thursday, Oct. 24 10:00–11:00 AM Exhibit Hall E, F & G	Lila Pender	Undergraduate Student	Poster L2, Tissue Engineering - Poster Session A	Composite Tissue Engineered Approach Based on Microfiber Scaffolds to Resist Hydrogel Contraction
Thursday, Oct. 24 10:00–11:00 AM Exhibit Hall E, F & G	Alexandra Trzpis	Undergraduate Student	Poster C6, Biomaterials - Poster Session A	Characterization of Extracellular Matrix Obtained from Cell-Based Hollow Fiber Membranes
Thursday, Oct. 24 10:00–11:00 AM Exhibit Hall E, F & G	Tram Nguyen	Alumni, BS '22	Poster M13 Biomanufacturing- Poster Session A	3D-printed magnesium isotropic porous scaffolds via multi-material additive manufacturing for bone tissue engineering
Thursday, Oct. 24 2:45 – 3:45 PM Exhibit Hall E, F & G	Xiang Tang	Undergraduate Student	Poster D9 Biomechanics - Poster Session B	Differential expression and functional roles of Piezo1 in articular condyle medial and lateral cartilage in situ
Thursday, Oct. 24 2:45 – 3:45 PM Exhibit Hall E, F & G	Hong Zhang	Undergraduate Student	Poster G1 , Biomedical Imaging and Instrumentation - Poster Session B	Development of an Experimental Platform to Test Integrated Diffuse Correlation Tomography and Ultrasound Probes for Breast Cancer Imaging
Friday, Oct. 25 8:30 -10:00 Room 343	Whasil Lee	Faculty (Primary) Assitant Professor	Platform Session Biomechanics - Platform Session	Cellular and Molecular Mechanobiology II
Friday, Oct. 25 10:00 - 11:00 AM Exhibit Hall E, F & G	Maris Lana	Alumni, BS '22	Poster N12 - Biomaterials - Poster Session C	Investigating Co-Activation of CD4+ and CD8+ T-cells Using an Artificial Lymph Node
Friday, Oct. 25 3:30 – 4:30 PM Exhibit Hall E, F & G	Johann Kintzel	Undergraduate Student	Poster D7 Biomechanics - Poster Session D	Mechanical susceptibility of chondrocytes by Piezo1 modulators and inflammatory cytokines in situ
Friday, Oct. 25 3:30 – 4:30 PM Exhibit Hall E, F & G	Manuela Montes de Oca	Undergraduate Student	Poster E1 Biomechanics - Poster Session D	Modeling of Sensors Used to Validate FE models of Articular Joint Contact: A Comparison of Simulated Hertz Contact
Friday, Oct. 25 3:30 – 4:30 PM Exhibit Hall E, F & G	Anastasiia Rudaeva	Undergraduate Student	Poster G8 Biomedical Imaging and Instrumentation, Poster Session D	Software Development For Fast and Accurate Cell Identification Across Multiple Imaging Modalities
Friday, Oct. 25 3:30 – 4:30 PM Exhibit Hall E, F & G	Christina I. Kyriacou	Undergraduate Student	Poster H10 Cardiovascular Engineering - Poster Session D	Investigating the Cooperation Between Endothelin B Receptor and Heparan Sulfate in Regulating Endothelin-1 Expression Using qPCR
Friday, Oct. 25 3:30 – 4:30 PM Exhibit Hall E, F & G	Yimei Du	Undergraduate Student	Poster J19 Nano and Micro Technologies - Poster Session D	Role of apolipoprotein E isoforms in blood-brain barrier stability
Friday, Oct. 25, 3:30 – 4:30 PM Exhibit Hall E, F & G	Faizah M. Ahmmed	Undergraduate Student	Poster L19 Women's Health - Poster Session D	Mechanical stress response of fibroblast cells on Vulvar Lichen Sclerosus patients
Saturday, Oct. 26 8:30 - 8:45 AM Room 315	Rebecca Irwin	Faculty (Visiting) Joining UR BME in July 2025	Talk - Neural Engineering Engineering - Neuroimaging	Cerebral Focal Stroke Causes Increased Incidence of Non-Flowing Capillaries Hundreds of Micrometers into the Adjacent Microvasculature
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Saturday, Oct. 26 12:45 -1:00 PM Room 340	Martha J. Gdowski	Faculty (Secondary) Associate Professor	Talk - Neural Engineering Engineering - Neuroimaging	Empowering Biomedical Engineers: Advancing Human Anatomy Education through Experiential Learning with Medical Devices