





Rebecca Irwin
Visiting Professor
Joining UR BME in July 25



Delayed lubricin injection improves cartilage repair in an in vivo rabbit osteochondral defect model
Co-Author: Donghwan Yoon – Cornell University
Co-Author: Karan Vishwanath, PhD – Cornell University
Co-Author: John Dankert – New York University
Co-Author: James Butler, MB BCH – New York University
Co-Author: Mohammad Azam – New York University
Co-Author: Marshall Colville, PhD – Cornell University
Co-Author: Matthew Paszek – Cornell University
Co-Author: Heidi Reesink, VMD, PhD, DACVS-LA – Cornell University
Co-Author: John G. Kennedy, MD, MCh, MMSc, FFSEM, FRCS – NYU
Co-Author: Lawrence Bonassar, PhD – Cornell University
Presenting Author: Rebecca Irwin, PhD – Cornell University

Talk- Orthopedic and Rehabilitation Engineering - Articular Cartilage, Meniscus, and Joints
Thursday, Oct. 24, 8:45 -9:00 AM
Location: Room 339





Lila Pender
Undergraduate Student




Composite Tissue Engineered Approach Based on Microfiber Scaffolds to Resist Hydrogel Contraction
Presenting Author: Lila Pender– University of Rochester
Presenting Author: Charlotte L. Lippa – University of Oregon
Co-Author: Samuel R. LesterA – University of Oregon
Co-Author: Ievgenii Liaschenko, PhD – University of Oregon
Co-Author: Adam Rauff, PhD – University of Oregon
Co-Author: Paul Dalton, Dr (he/him/his) – University of Oregon
Co-Author: Nick Willett, PhD – University of Oregon - Knight Campus
Last Author: Robert Guldberg – University of Oregon

Poster L2
Tissue Engineering - Poster Session A
Thursday, Oct. 24, 10:00–11:00 AM
Location: Exhibit Hall E, F & G





Alexandra Trzpis
Undergraduate Student




Characterization of Extracellular Matrix Obtained from Cell-Based Hollow Fiber Membranes
Presenting Author: Alexandra Trzpis – University of Rochester
Co-Author: Chris Slavin – University of Arkansas
Co-Author: Anelisse Claros – University of Arkansas
Primary Investigator: Jeffrey Wolchok, PhD – Univ. of Arkansas

Poster C6
Biomaterials - Poster Session A
Thursday, Oct. 24, 10:00–11:00 AM
Location: Exhibit Hall E, F & G





Tram Nguyen
PhD Student
Johns Hopkins University



3D-printed magnesium isotropic porous scaffolds via multi-material additive manufacturing for bone tissue engineering
Presenting Author: Tram Nguyen, MSE – Johns Hopkins Univ.
Co-Author: Erica Jingtong Zhao, MSE – Johns Hopkins Univ.
Last Author: Timothy P. Weihs – Johns Hopkins Univ.
Primary Investigator: Warren Grayson, PhD – Johns Hopkins Univ.

Poster M13
Biomanufacturing- Poster Session A
Thursday, Oct. 24, 10:00–11:00 AM
Location: Exhibit Hall E, F & G




Xiang Tang
Undergraduate Student



Differential expression and functional roles of Piezo1 in articular condyle medial and lateral cartilage in situ
Presenting Author: Xiang Tang – University of Rochester
Co-Author: Suk Hee Lee – University of Rochester Med Center
Co-Author: Yaxin Zhang – University of Rochester
Co-Author: Johann Kintzel – University of Rochester
Primary Investigator: Whasil Lee, PhD – University of Rochester

Poster D9
Biomechanics - Poster Session B
Thursday, Oct. 24, 2:45 – 3:45 PM
Location: Exhibit Hall E, F & G




Hong Zhang
Undergraduate Student



Development of an Experimental Platform to Test Integrated Diffuse Correlation Tomography and Ultrasound Probes for Breast Cancer Imaging
Presenting Author: Hong Zhang – University of Rochester
Co-Author: Devin C. Johnson – University of California, Irvine
Last Author: Regine Choe, PhD – University of Rochester

Poster G1
Biomedical Imaging and Instrumentation - Poster Session B
Thursday, Oct. 24, 2:45 - 3:45 PM
Location: Exhibit Hall E, F & G



THURSDAY,
OCTOBER 24TH
7:00 -9:00 PM

Food, Drinks,
Networking, &
Raffle Prizes!



UR BME
RECEPTION

at BMES in Baltimore, MD

BALTIMORE CONVENTION
CENTER: Blake Room
Hilton Inner Harbor

#URBME @ #BMES2024!

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
Saturday, Oct. 26, 10:00 - 11:00 AM Exhibit Hall E, F & G	Rebecca Irwin	Faculty (Visiting) Joining UR BME in July 2025	Poster AA5 - Orthopedic and Rehabilitation Engineering, Poster Session E	Medial cartilage defect drives matrix and cell pathology in compartment-matched meniscus
Saturday, Oct. 26, 10:00 - 11:00 AM Exhibit Hall E, F & G	Yeidi N. Yuja Vaquiz	Undergraduate Student	Poster F9, Biomedical Imaging and Instrumentation - Poster Session D	Ultrasound and Photoacoustic Guided Gastrotomy to Prevent Colonic Injury
Saturday, Oct. 26, 10:00 - 11:00 AM Exhibit Hall E, F & G	Julia Rothschild	Undergraduate Student	Poster K4 Nano and Micro Technologies - Poster Session E	Testing of nanoporous silicon-nitride membrane ultrafiltration for hemodialysis
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