

Mason Bioengineering Student Design & Research Day

May 7th ♦ 9:00 am to 3:30 pm

	Speaker	Title	Advisor/Mentor
9:00 am	Shani Ross	Opening Remarks	
Biomaterials and Nanomedicine Moderator: Remi Veneziano			
9:05 am	Manuel Carrasco	Lipid Nanoparticle Charge and Ultrastructure Influence mRNA Delivery Efficiency and Biodistribution	Mike Buschmann
9:15 am	Hooda Said	Molecular and Colloidal Ionization Properties of Ionizable Lipids and Lipid Nanoparticles	Mike Buschmann
9:25 am	Joshua Bush	Molecular DNA Hydrogels	Remi Veneziano
9:35 am	Esra Oktay	Functionalized DNA Origami Scaffold as a Powerful Tool for Biomedical Applications	Remi Veneziano
9:45 am	Julia Leonard	Creating a Model for Acute Inflammation using Tissue-engineered Blood Clots	Caroline Hoemann
9:55 am	Megan Lawson	Potential Effects of COVID-19 Coagulopathy on Gene Activation in Peripheral Blood	Caroline Hoemann
Computational Biomedical Engineering Moderator: Qi Wei			
10:05 am	Setareh Salimi	Hemodynamics and Bleb Formation in Cerebral Aneurysms	Juan Cebal
10:15 am	Sara Hadad	Local Hemodynamics of Aneurysm Wall Enhancement	Juan Cebal
10:25 am	10-minute break		
Biomedical Imaging and Devices Moderator: Eugene Kim			
10:35 am	Steven Guan	Photoacoustic Image Reconstruction using Deep Learning	Parag Chitnis
10:45 am	Giovanni Giammanco	Photoacoustic Sensing of Cellular Voltage	Parag Chitnis
10:55 am	Joe Majdi	Towards Real-time Muscle Fatigue and Recovery Markers using a Wearable Continuous Wave Doppler Ultrasound System	Siddhartha Sikdar

Neurotechnology and Computational Neuroscience

Moderator: Shani Ross

11:05 am	Masood Akram	Morphological Classification of Neurons and Glia: a Neuroinformatics Approach	Giorgio Ascoli
11:15 am	Huda Khawar	NeuroMorpho.Org in the Time of Covid-19	Giorgio Ascoli
11:25 am	Ealed Nuru	Examining the Applications of Buckminsterfullerene [C ₆₀] on Neuronal Models for Alzheimer's Disease	Nathalia Peixoto
11:35 am	Lunch Break		
Senior Design Presentations			
1:25 pm	Shani Ross	Senior Design Remarks	
1:30 pm	N-ear-O Implanters (Team 5)	Cochlear Implant Symmetry	Brian Reilly, Kevin Cleary
1:45 pm	Hip Model Team (Team 6)	Hip Aspiration Model	Evan Sheppard, Kevin Cleary
2:00 pm	Opioid Crisis Team (Team 7)	Open Interactive Data Visualization Platform	Siddhartha Sikdar
2:15 pm	NanoCreators (Team 3)	DNA Nanotechnology Toolkit	Remi Veneziano, Randy Warren
2:30 pm	10-minute break		
2:40 pm	TeleDream (Team 4)	Autonomously Extracting the Cranial Nerve Exam with Patient Provided Image and Video	Mahesh Shenai, Vasiliki Ikonomidou, Huzefa Rangwala
2:55 pm	Mask-Up (Team 2)	The InnoMask	Michael Buschmann, Vasiliki Ikonomidou, Remi Veneziano, Randy Warren
3:10 pm	Beam Team (Team 1)	The Ultimate Automatic Half-Mouth Toothbrush	Randy Warren, Marinka Tellier
3:25 pm	Shani Ross	Closing Remarks	

Please click the link below to join the webinar:

<https://gmu.zoom.us/j/91082444248?pwd=cHF1Z3R1ck0xcnhITew2UDNEU1hsUT09>

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