COLLEGE OF ENGINEERING | UNIVERSITY OF MIAMI

RESEARCH DAY

FEBRUARY 25, 2022

AGENDA

Time	Speaker Session Title	Poster Session
8:30 am		Coffee and Cookies Available
9:00 – 9:15 am	Welcome Dean Biswas Helena Solo-Gabriele Renee Evans (poster judging)	
9:15 – 9:45 am	Speaker Session I: **Engineering Cures for Cancer** Session moderators: Ashutosh Agarwal and Stephen Nimer	
9:45 – 10:15 am	Break	
10:15-11:30 am	Speaker Session II: **Advanced Materials for Manufacturing** Session Moderators: Emrah Celik, James Coakley, Luis Ruiz Pestana	Poster Session I set up starts at 10:30 am
11:30 to 1:00 pm	Break	Poster Session I (11:30 to 1:15 pm) (with box lunches)
1:00 to 2:15 pm	Speaker Session III: **Advanced Materials in Healthcare** Session Moderators: Sakhrat Khizroev, Fabrice Manns	Poster Take Down

2:15 to 2:45 pm	Student Poster Award Recipients, Closing, Adjourn Helena Solo-Gabriele GESC Representative Renee Evans (Poster Awards)	

Speaker Session I: **Engineering Cures for Cancer** (9:15 to 9:45 am)

Moderators: Ashutosh Agarwal and Stephen Nimer

Time	Speaker	Title
9:15 am	Ashutosh Agarwal and Stephen Nimer	Session Welcome, Background for RFA. Announcement of Awards
9:25 am	Awardee 1	Title 1
9:35 am	Awardee 2	Title 2
9:45 am	Adjourn	

Speaker Session II: Advanced Materials for Manufacturing (10:15 to 11:30 am)

Session Moderators: Emrah Celik, James Coakley, Luis Ruiz Pestana

Time	Speaker	Title
10:15 am	Emrah Celik, James Coakley, Luis Ruiz Pestana	Session Welcome
	Bill Hixson	Additive manufacturing of titanium matrix composites
	Muhammad Awais	Precipitate size distribution and strengthening in superalloys
	James Coakley	Refractory superalloys
	William Jordan Wright	Artificial Intelligence Integrated Additive Manufacturing
	Raden Gustinvil	Additive Manufacturing of Thermoelectric Materials
	Inam Lalani	In-situ SEM micromechanics
	Giacomo Po	Micromechanical modeling of creep in metals
	Zhiwei Yan	Synergy between Graphene and Mediators in Batteries and Supercapacitors
	Mert Akin	Superionic electrolyte-the mechanism revealed
	Christos Myafides	Multifunctional composites with photo-thermal energy-harvesting capability
	Ben Bessling	3D A-FEM for composite failure analysis

	Qingda Yang	Virtual design and testing of composite materials
	Mingyue Wu	Learning how glasses creep
	Geng Yuan	Rational design of high entropy alloy catalysts
	Luis Ruiz Pestana	The role of molecular modeling in the discovery of advanced materials
	Ying Wang	Activation of basaltic materials for use as supplementary cementitious materials
	Prannoy Suraneni	Reactivity of synthetic calcium aluminosilicate glasses
	Sadegh Tale	Machine learning for the rational design of chemicals for durable concrete
	Elvis Baffoe	Bio-inspired self-healing concrete materials
11:30 am	SPEAKER	Session Closing

Speaker Session III: Advance Materials in Healthcare (1:00 to 2:00 pm)

Session Moderators: Sakhrat Khizroev, Fabrice Manns

Time	Speaker	Title
1:00 pm	Sakhrat Khizroev, Fabrice Manns	Session Welcome
	Emma Drabbe	Retinoblastoma On a Chip
	Kevin Davis	Patient Operated Brain Computer Interface for Hand Grasp Restoration at Home
	Elric Zhang	Magnetoelectric nanoparticles for wireless brain stimulation
	Diana Velluto	Drug-Integrating-Amphiphilic-Nanomaterial-Assemblies (DIANAs) for targeted and localized drug delivery
	Giancarlo Tejeda	Sequestering inflammatory signals with a scavenger nanoparticle
	Mostafa Abdel-Mottaleb	Using magnetoelectric nanoparticles for localized motor activity control in rats
	Aaron Stock	Optimization of Conformal Coating Encapsulation with Primary Islets and Stem Cell-Derived Islets for ß Cell Replacement Without Immunosuppression for Treatment of Type 1 Diabetes
	Ashutosh Agarwal	Breast cancer metastasis on a chip
	Courtney Dumont	Biomaterial targeting nanoparticles for increased temporal control of drug release
	Abishek Prasad	Brain and spinal cord machine interfaces for restoring hand function in spinal cord injury

	Onur Tigli	Piezoelectric Materials: Applications in Biosensors for Cancer Diagnosis
	Sakhrat Khizroev	Magnetoelectric nanoparticles for cancer treatment
2:15 pm	SPEAKER	Session Closing