2018 College of Medicine Research Forum Award Winners

Medical Student Competition

First Place Winner: Eitan Katz (Neurology)
Title: “Early Complement Activation in Cerebrospinal Fluid of Patients with Subarachnoid Hemorrhage
Co-Authors: Joseph Geraghty, Matthew Oparowski, Fernando Testai

Second Place Winner: Logan Schwarzman (Urology)
Title: “The Association of Previous Prostate Biopsy Related Complications and the Type of Complication with Patient Compliance with Rebiopsy Scheme”
Co-Authors: Michael Abern, Daniel Garvey, Gerald Andriole, Stephen Freedland, Daniel Moreira
*Winner of First Place prize in Cancer Center competition

Honorable Mentions:
Rishi Neeranjun (Physiology and Biophysics)
Title: “Comparing the dosimetric impact of dental implants of two different calculation algorithms in oropharyngeal IMRT planning”
Co-Authors: Chris Lominska, Rajeev Badkul

Robert George (Biochemistry and Molecular Genetics)
Title: “Cerebral Mapping of Trpm8”
Co-Authors: Lusine Demirkhanyan, Eleonora Zakharian

Adam Wright-Chisem (Orthopaedics)
Title: “Single-Level Instrumented Lumbar Interbody Fusion: The Impact of ASCs on Evidence-Based Medicine”
Co-Authors: Dwight Tyndall, William Zuke

Elan Volchenko (Orthopaedics)
Title: “Arthroscopic Lysis of Adhesions with Manipulation Under Anesthesia vs. Manipulation Alone For Arthrofibrosis after TKA: a Matched Cohort Study”
Co-Authors: Garrett Schwarzman, Matthew Robinson, Samuel Chmell

Abhinav Komandur (Medicine)
Title: “The Worst Loss of All”: Clinical Decision-Making in Advanced ENT Cancers When Systemic Therapy is Not Accessible”
Co-Authors: Heather Weinreich, Barry Wenig

Jeffrey Rajkumar (Dermatology)
Title: “Multiple Large Linear Hyperpigmented Plaques on the Abdomen of a Young Female”
Co-Authors: Kurt Ashack, Michelle Bain

Jarod Shelton (Medicine)
Title: “Exploring Maternal Death Rate Patterns in Urban and Rural Counties of Illinois”
Co-Authors: Brooke Dean, Amanda Johnson, Annita Matthew, Alexandra McVicker, Erin Hinckley

Ryan Chiu (Medicine)
Title: “Do community health workers impact non-urgent, ambulatory healthcare utilization among minority patients with diabetes? A Randomized Controlled Trial”
Co-Authors: Yinglin Xia, Lisa Sharp, Ben Gerber

Meghana Babu (Medicine)
Title: “Meta-Analysis of Blood Transcriptome Response to Viral Vaccination Reveals Sex Differences”
Co-Authors: Benjamin Turturice, David Perkins, Patricia Finn

Jack Zakrzewski (Neurosurgery)
Title: “Targeted Magnetic Nanoparticles as a Potential Treatment of Prostate Cancer Metastasis: Short Term Systemic Deposition and Toxicity”
Co-Authors: Tyler Lung, Saavan Patel, Koral Shah, Ankit Metha

Justin Choi (Orthopaedics)
Title: “Risk Factors for Missed Appointments in an Urban, Academic Orthopedic Clinic”
Co-Authors: Gautam Malhotra, Jonathan Bode

Adam Wright-Chisem (Orthopaedics)
Title: “3-Dimensional Virtual Reality for Pain Control in Orthopaedic Patients: A Prospective Randomized Control Study”
Co-Authors: Milton Little, John Garlich, Amber Howard, Carol Lin, Charles Moon
Graduate Student and MD-PhD Student Competition

First Place Winner: Allison Kirchner (Neurology)
Title: “DUSP4: An endogenous antiepileptogenic inhibitor of MAP Kinase signaling”
Co-Authors: Shruti Bagla, Fabien Dachet, Jeffrey Loeb

Second Place Winner: Joseph Geraghty (Neurology)
Title: “Neuroimmune implications for longterm electrographic and behavioral abnormalities seen after subarachnoid hemorrhage”
Co-Authors: Alexander Tate, Biswajit Maharathi, Fernando Testai, Jeffrey Loeb

Honorable Mentions:
Ryan Clarke (Biochemistry and Molecular Genetics)
Title: “A transcription-dependent strandbias in Cas9 activity”
Co-Authors: Matthew MacDougall, Hannah Pennington, Maureen Regan, Bradley Merrill

Biswa Maharathi (Bioengineering)
Title: “Interictal spike connectivity in human epileptic neocortex”
Co-Authors: James Patton, Jeffrey Loeb
*Winner of CCTS prize competition

Mark Shaaya (Pharmacology)
Title: “Engineered Allosteric Regulation of Protein Kinases by Light”
Co-Authors: Martin Brennan, Vincent Huyot, Viswanathan Natarajan, Andrei Karginov

De Yu Mao (Physiology and Biophysics)
Title: “Chloride Intracellular Channel (CLIC) proteins function to modulate Rac1 and RhoA in Sphingosine-1-phosphate signaling to regulate endothelial cell behavior”
Co-Authors: Matthew Kleinjan, Sarah Lutz, Yulia Komorova, Jan Kitajewski

Alexander Terry (Biochemistry and Molecular Genetics)
Title: “The Role of CD36 in tumor redox homeostasis”
Co-Author: Nissim Hay
*Winner of Second Place prize in Cancer Center competition

Alexander Ticho (Physiology and Biophysics)
Title: “A novel role of S-acylation in regulating ASBT function”
Co-Authors: Pooja Malhotra, Seema Saksena, Ravinder Gill, Waddah Alrefai

Matthew Kleinjan (Physiology and Biophysics)
Title: “The role of CLIC1 and CLIC4 in signaling pathways that regulate endothelial cell barrier integrity”
Co-Authors: De Yu Mao, Yulia Komarova, Jan Kitajewski

Sarah Morris (Anatomy and Cell Biology)
Title: “Regulation of axonal transport through tau phosphorylation”
Co-Authors: Karin Bechberger, Svenja Koenig, Sarah Aloe, Gerardo Morfini, Scott Brady

Tiffani Berkel (Psychiatry)
Title: “G9a-mediated regulation of tolerance to the anxiolytic effects of alcohol”
Co-Authors: Huaibo Zhang, Tara Teppen, Subhash Pandey
Postdoctoral fellows and residents Competition

First Place Winner: Matt Wood (Microbiology and Immunology)
Title: “Uncovering the role of HOIL1 in (regulation of) Type 2 inflammation”
Co-Author: Donna MacDuff

Second Place Winner: Christopher Solis (Physiology and Biophysics)
Title: “The CapZ β-tentacle interacts with PIP2 to control CapZ dynamics in response to mechanical stiffness”
Co-Author: Brenda Russell

Honorable Mentions:
Dulari Jayawardena (Medicine)
Title: “Local Colonic Delivery of Vasoactive Intestinal Peptide (VIP) Nanomedicine Alleviates Colitis in Mice”
Co-Authors: Arivarasu Anbazhagan Natarajan, Hayat Onyuksel, Pradeep K Dudeja

Milica Grozdanovic (Biochemistry and Molecular Genetics)
Title: “A Novel CCR3 Peptide Nanoparticle Biased Antagonist of Eosinophil Recruitment to Sites of Allergic Inflammation”
Co-Authors: Anantha Harijith, Hyung-Geon Moon, Ben Hitchinson, Hazem Abdelkarim, Gye Young Park

Misuk Bae (Anesthesiology)
Title: “Novel Endothelial Cell Targeted Peptide Inhibitor of von Willebrand Factor Secretion for Reducing Thrombotic Complications of Cancer and Cancer Treatment”
Co-Authors: Luiza Rusu, Maricela Castellon, Aleksandra Stojanovic-Terpo, Kyungho Kim, Jaehyung Cho

Alexandre Aissa (Biochemistry and Molecular Genetics)
Title: “Employing scRNA-seq to target drug-resistant cells in anticancer therapies”
Co-Authors: Majd Ariss, Abul Islam, Maxim Frolov, Elizaveta Benevolenskaya

Ana Valencia-Olvera (Anatomy and Cell Biology)
Title: “ABCA1 activation in the CNS as a therapeutic target for APOE4-induced Alzheimers disease risk”
Co-Authors: Deebika Balu, Jason York, Thomas McNally, Mary Jo LaDu
Research Assistant Professors and Scientific Staff Competition

*Two First Place Winners tied and share honors:

*Harish Krishnan (Psychiatry)
Title: “Using Atac-Seq To Identify Novel Epigenetic Networks In The Amygdala That Play A Role In Acute Alcohol-Induced Anxiolysis”
Co-Authors: Annie Shieh, Huaibo Zhang, Ying Chen, Tara Teppen, Subhash Pandey

*Jing Li (Pharmacology)
Title: “Neutrophil αMβ2 integrin is required for GPCR signaling by serving as a scaffold protein in lipid rafts”
Co-Author: Jaehyung Cho

Honorable Mentions:
Sophie Tran (Anesthesiology)
Title: “Mesenchymal Stem Cell Derived Extracellular Vesicles And Neuroprotection In The Retina.”
Co-Authors: Steven Roth, Leianne Torres, Mohansrinivas Chennakesavalu, Raj Patel, Nathan Burg

Mohamed Ali (Obstetrics and Gynecology)
Title: “Implication of estrogen and beta-catenin cross-talk on Uterine Fibroids pathogenesis which is reversed by histone deacetylase inhibitors”
Co-Authors: Ayman Al-Hendy, Qiwei Yang,

Shubha Priyamvada (Medicine)
Title: “All-trans retinoic acid (ATRA) Stimulates SLC26A3 Activity in intestinal epithelial cells via a PI3K signaling pathway”
Co-Authors: Arivarasu N. Anbazhagan, Anoop Kumar, Tarunmeet Gujral, Pradeep Dudeja