



RUTGERS HEALTH

**Robert Wood Johnson
Medical School**

**2024 RWJMS Medical Students
Summer Research Program
Symposium**

Wednesday, August 7, 2024

Keynote Speaker

RWJMS - MD/PhD Program Alumnus

Ronny Drapkin, MD, PhD

Franklin Payne Professor of Pathology in Gynecologic Oncology
Director, Penn Ovarian Cancer Research Center
Director, Gyn Cancer Research, Basser Center for BRCA
Co-Director, Ovarian Cancer Translational Center of Excellence
Department of Obstetrics and Gynecology
University of Pennsylvania Perelman School of Medicine
Deputy Dean, Department of Defense, Ovarian Cancer Academy

Organized by: RWJMS Office of Research

2024 RWJMS Medical Students Summer Research Program Symposium

#	Student	Mentor	Title of Research
1	Priya Agarwal, BA	Babar K. Rao, MD	Dermoscopic Features of Scalp Hair in Patients of Varying Fitzpatrick Types
2	Fayssal Alqudrah, PharmD, BS	Minnette Markus-Rodden PhD, RN	Evaluation of Adherence to AAP Guidelines in the Treatment of Uncomplicated Acute Otitis Media in Pediatric Patients
3	Shreya R. Bhalla, BS	Hari S. Iyer, ScD, MPH	Estimating the impact of travel burden on choice of treatment in New Jersey men with prostate cancer
4	Amarnath Bodempudi, BS, MHA	Zhiping P. Pang, MD, PhD	Implementation of DeepLabCut and machine learning tools to assess functional recovery after sciatic nerve injury in Rats
5	Aryan Borole, B.S	Francis Kang, MD	A Multi-Center Study on the Safety and Efficacy of Three Ablation Techniques for the Treatment of Osteoid Osteomas
6	Maxim Breakstone, BS, BA	Hai Sun, MD, PhD	Inhibitory Parvalbumin Interneuron Activity Predicts Seizure Severity and Defines the Progression of Optogenetic Temporal Lobe Seizures
7	Neha Chauhan, BA	Michal Schnaider Beerli, PhD	The Associations of Social Determinants of Health with Cognitive Functioning in Offspring of Alzheimer's Disease Patients
8	Heather Clifford, BS	Padmaja Upadya, MD	Balancing the Burden of Documentation and Patient Safety
9	Russell J. Cook, BS	Michele T. Pato, MD	The Impact of Legalization of Recreational Cannabis Use in Severe Mental Illness
10	Weston R. Cooper BA	Simon Li, MD, MPH	Improving Efficacy and Efficiency in Management of Pediatric Diabetic Ketoacidosis
11	Robert A. Daly, BA	Peter Cole, MD	Association between single nucleotide polymorphisms, cerebral spinal fluid biomarkers, and cognitive decline in children treated with chemotherapy for Acute Lymphoblastic Leukemia.
12	Jason Daniels, MBS	Sheldon S. Lin, MD	Vanadium Coated Rod Enhances Fracture Healing in a Rat Model
13	Cynthia Daut, BA	Hai Sun, MD, PhD	Striatal and Hippocampal Long-Term Potentiation in a Kindling Mouse Model of Temporal Lobe Epilepsy
14	Aditya Dharani, BS	Kristen Harris, MD	Factors associated with community discharge in acquired brain injury patients receiving continued care in a skilled nursing facility
15	Jimmy Dhillon, BA	Frederick Silver, PhD	Determining Whether Basal Cell Carcinoma Subtypes are Distinctly Different from Each Other Through Dermoscopy, Histology, and Optical Coherence Tomography

16	Katherine H. Dinh, BA	Tejbeer Kaur, PhD	Biologically Aging Mouse Cochlea Is Associated with Inflammation and Senescence
17	Andrew Dressner, BS	Michael Jong, MD, MSc, FAAEM, FACEP	Clinician Gestalt in the Diagnosis and Characteristics of Ureteral Colic in Emergency Department Patients
18	Minatulah Elzawawy, BA	Laurie B. Joseph, PhD	Evaluating the novel Bio-Spun™ in-vitro full-thickness human skin model using immunohistochemical localization of cutaneous markers
19	Jacqueline A. Erler, BA	Haylea R. Sweat Patrick, MD	Artificial Intelligence and Prenatal Diagnosis: Is There a Role for ChatGPT in Fetal Ultrasound?
20	Reem Esseghir, BA	Charletta A Ayers, MD, MPH	Feasibility and Acceptability of a Remote Blood Pressure Monitoring and Patient Navigation Program in Pregnant Women of Color at Increased Risk of Pre-eclampsia
21	Sandra Freeman, BA	Lea Ann Chen, MD	The relationship between polygenic risk score and the gut microbiome in pediatric Crohn's disease patients
22	Julia Friberg, BS	Rachel L. Choron, MD, FACS	The Impact of Social Relationships and Mindset on Satisfaction and Human Resiliency in Firearm Injury Survivors
23	Julia Gillan, BS	Marilyn Piccirillo, PhD	Characterizing the Design and Implementation of a Digital Clinic: A Scoping Review
24	Sonika Gohil, BS.	Jonathan McCoy, MD.	Literature Review of Firefighter Injuries and Health Issues: Sudden Cardiac Death, Cancer, and Vehicle Collisions.
25	Shivani Gokhale, BS	Salma K. Jabbour, MD, FASTRO	Retrospective Analysis to Characterize the Relationship between Tumor Size and Radiation Toxicity
26	Ankur Govil, BS	Sammy E. Elsamra, MD	Single port robotic ureteral reimplant in a mitrofanoff-type bladder augment
27	Alyssa Granito, BS	Zeeshan Ahmed, Ph.D.	Recent Application of Artificial Intelligence/Machine Learning to Metabolomics Data for the Prediction of Metabolic Biomarkers for Disease States
28	Holly Graziano, BA	Todd Rosen, MD	Management of postpartum preeclampsia and hypertensive disorders (MOPP): One year follow up of tight blood pressure control postpartum
29	Abigail Gulchin, BA	Suzanne Magherini-Rothe, MD, FACOG	Use of Digital Decision Making Aids in Contraceptive Counseling
30	Shreya Gupta, BA	Sara Heinert, PhD, MPH	Awareness of the Signs and Symptoms of Heart Attack and Stroke in Emergency Department Patients
31	Kevin B. Hayes, BSE	Leonard Y. Lee, MD	Downregulation of CREG1 in Thoracic Aortic Aneurysm Correlates with Smooth Muscle Dedifferentiation and Impaired Lysosomal Biogenesis
32	Brittany Hofferber, BA	Sabiha Hussain, MD	Integrated Behavioral Health Perspectives on COPD: A Mixed-Methods Study
33	Eileen Hsieh, MS	Sara Heinert, PhD, MPH	Feasibility and Acceptability of Human Papillomavirus (HPV) Self-Tests as a Cervical Cancer Primary Screening Method to Reach Under-Screened Women Who Present to the Emergency Department
34	Ashley M. Huezo, BS	Craig A. Bollig, MD	A Case Report and Literature Review on Extracapsular Dissection for Benign Submandibular Gland Tumors

35	Jenny Hung, BA	James K Aikins, Jr., MD, FACOG, FACS,	Sexual Function of Women with Gynecological Cancer Before and After Surgery: A Prospective Study
36	Sanika Joshi, BS	Brad Kamitaki, MD	Preventing Hospitalizations for Asian Americans with Alzheimer's Disease and Related Dementias (ADRD)
37	Omar Kawam, BA	Anna Kline, PhD	Factors in Reducing Anxiety Medications Amongst Medical Marijuana Users
38	Samisha Khangaonkar, MBS	Aliza Leiser, MD, FACOG	Evaluating the Current State of Ethics Education in OB/GYN Residency Programs: Assessing Needs and Identifying Opportunities for Standardization
39	Amogh Kudva, BA	Bo Qin, PhD	Association of Lifestyle Patterns with Sleep Disturbance in a Population-Based Cohort of Black Breast Cancer Survivors
40	Lautina Kwarteng, BA	Frederick H. Silver, PhD	Corneal Biomechanics and Ethnic Disparities in Glaucoma Risk: A Comparative Literature Review
41	Abisola Lawal, BA	Frederick Silver, PhD	Clinical Use of OptoScope: Using Vibrational Optical Coherence Tomography to Assess Skin Cancer
42	Elena Lisci, BA	Jag Sunderram, MD	Impact on Oxygen Saturation due to Chronic Intermittent Hypoxia
43	James Y. Lu, BA	William E. Beckerman, MD	Frailty is a Poor Predictor of One-Year Mortality and Morbidity after Ruptured Abdominal Aortic Aneurysm Repair
44	Erica Lupiano, BS	Tengteng Wang, PhD, MSPH, MBBS	Relationship Between Circulating Tumor Cells (CTCs) and Progression of Metastatic Breast Cancer.
45	Neha V. Maddali, BSPH	Sara Heinert, PhD, MPH	Enhancing Proactive and Preventative Health Behaviors among Hyperglycemic Patients presenting to the Emergency Department
46	Joshua A. Matthew, B.S.	Conor McClenaghan PhD	Cardiac Electrophysiologic Consequences of Mutations in Cardiac SUR2A subunit of KATP channels
47	Christina McGinnis BS	Brock Daniels MD, MPH	Influence of Social Determinants of Health at the New York City Community Health District Level on Reported Quality of Life Among Patients Living with Heart Failure
48	Marissa Millwater, BS	Shahriar SheikhBahaei, PhD	An etiology and novel therapeutic opportunity: disrupted iron homeostasis in a mouse model of stuttering
49	Parth Modi, BS	Sugeet Jagpal, MD	Efficacy of Palliative Care Education of Clinicians in Pulmonary Medicine
50	Talia Morchower, BS	Huong Truong, MD	Gender-Specific Variations in Abdominal Aortic Aneurysm Treatment Approaches
51	Jason Morgan, BS	Todd Mowery, PhD	Preventing noise-induced hearing loss using AAV-based antioxidative gene therapy alongside ear protection
52	Melissa K. Morse, MBS	Thomas J. Kirn, MD, PhD	Performance Analysis of the Selux Next Generation Phenotyping Antimicrobial Susceptibility Testing System
53	Henry Noren, BS, MSE	Hai Sun, MD, PhD	Reconstructing Morphological Changes and Functional Connectivity Disruptions in TBI and Post-Traumatic Epilepsy Patients via Variational Autoencoder
54	Connor J. O'Leary, BA	Saum Ghodoussipour, MD	Association Between Private Well Water Exposure and Prostate Cancer Severity: Analysis of a National Cohort of Patients from 2010-2019

55	Ana Oyola, BS	Scott Shapiro, MD	Ménière's Disease Treatment Responses in Older Adults
56	Cyanna Padmore, BA	Juana Hutchinson-Colas, MD, MBA	Impact of Different Types of Urinary Incontinence on Patients' Quality of Life: A Retrospective Cohort Study
57	Anushka Pande, BA	Gloria Bachmann, MD	Medical Student Perspectives about Mentorship
58	Aarushi K. Parikh, MA	Babar K. Rao, MD	Characterization of collagen in wound healing using in vivo reflectance confocal microscopy
59	Prachi N. Parikh, PharmD	Craig A. Bollig, MD	Multicenter Analysis of Perioperative and Late Outcomes of Osseous Free Flap Reconstruction in Patients with Mandibular Osteoradionecrosis
60	L. Sienna Parsonnet, MS	Hai Sun, MD, PhD	DREADDs-derived Activation of Parvalbumin Interneurons During Optogenetic Kindling Induces Δ FosB Expression in Hippocampal Principal Neurons
61	Dhruvi Patel, BS	Derek Sant'Angelo, PhD	Preventing Graft versus Host Disease: Development of Potential Cellular Therapy Post-Allogeneic Hematopoietic Stem Cell Transplants
62	Radha Patel, BS	Sanjay Goel, MD, MS	Analysis of Factors Impacting the Outcomes of Colorectal Cancer Patients on Phase 1 Clinical Trials
63	Pooja Rao, MS	Advaita Madireddy, MD	A Study of Red Dye 40's effects on DNA Integrity FANCD2 Fanconi Anemia Cell
64	Varun Reddy, BA	Irina De la Huerta, MD, PhD	Inflammatory Cytokines Act on Tight Junctional Complexes to Induce Retinal Vascular Hyperpermeability in Diabetic Retinopathy
65	Zachary Rosenblatt, BA	Gerardo Rodriguez, MD	Practitioner Navigation of Uses of the Death by Neurologic Criteria Exemption in New Jersey
66	Drashya Shah, BA	Steven Brant, MD	Prior Authorization Process for Biologic Medications in Management of Inflammatory Bowel Disease and its Impact on Patient Outcomes
67	Matthew A. Silverman, BS	Biren Saraiya, MD	Navigating Financial Toxicity in Blood Cancer Care
68	Hunter Skroczyk, BA	Todd Rosen, MD	The Effect of Sulfasalazine on CRH levels in Pregnant Women with a History of Preterm birth: a randomized control trial
69	Sophie E Smith, BA	Daniel B Horton, MD, MSCE	Prenatal Antibiotic Exposure and Incident Learning Disorders in Childhood
70	Rufine Kendra Soh, BS	Sara Heinert, PhD, MPH	Real-World Implementation of a Patient-Reported Measure of Diagnostic Excellence (PRIME-ED)
71	Blane Soper, BS	Peter D. Cole, MD	Concurrent Memantine Administration Protects Against Juvenile Radiation-Induced Cognitive Deficits in Rats
72	Alyanna I. Tam, BA	Lakshmi Uppaluri, MD	Reviewing the Standard of Care for Pulmonary Pediatric Patients Utilizing Technology
73	John P. Tarantino, BS	Tammy Chung, PhD and Carolyn E. Sartor, PhD	Understanding Racial/Ethnic Differences in Cognitions and Risk/Protective Factors for E-Cigarette Use Among Youth using Adolescent Brain Cognitive Development (ABCD) Study Data

74	Aaron I. Taveras, MS, BA	Manuel E. Jimenez, MD, MS	Reach, Feasibility, and Acceptability of an Early Math Intervention for preschool children in Pediatric Primary Care
75	Shruthi Thiyagarajan, MS	Gloria Bachmann, MD	Addressing Stigma and Framing Narratives: Insights on Re-entry Individuals and Public Perception
76	Dylan Tran, BA	Arevik Abramyan, MD	Comparison of Flow Diversion Alone or in Conjunction with Coiling for Treatment of Ophthalmic Artery Aneurysms
77	John Trovato, BS	Partho P. Sengupta MD, DM	ECG-based Digital Twin of Left Ventricular Mechanics
78	Natalie VanderVeer, BS	Ryan Fields, DO	Establishing an Infant Spinal Anesthesia Registry for Real-Time Quality Control and Quarterly Insights
79	Swathi Vasudevan, B.A.	Candle V. Ananth, PhD, MPH	Changes in the Prevalence of Eclampsia in the United States, 1990-2022
80	Saisanjana Vellampalli, BS	Leonard Y. Lee, MD	Efficacy of Revascularization for Coronary Artery Disease in End Stage Renal Disease Patients awaiting Kidney Transplant: A Literature Review
81	Marissa Viqueira, BS	Jason Womack, MD	The Ivy League-Big Ten Epidemiology of Sports-Concussion Study
82	Sonjae Williams, BS	Jennifer Amico, MD, MPH	Understanding Provider Perspectives on IUD removal
83	Marshall Yuan, PharmD	Sagar Mungekar, MD	Erector Spinae Plane Block for Post-Surgical Pain Management in Adult Coronary Artery Bypass Graft Surgical Patients
84	Bruce Zhang, BS	Justin Yao, PhD	The Impact of Noise-Induced Hearing Loss on Cognitive Function
85	Josephine Zhang, BS	Biren Saraiya, MD	Cancer Patient Perceptions of Discussing Financial Concerns with Care Teams
86	Celina G. Zhou, BSE	Hai Sun, MD, PhD	Characteristic Reverberant Phase Activity Precedes Spontaneous Recurrent Seizures in a Murine Model of Mesial Temporal Lobe Epilepsy (MTLE)
87	Sarah Araten, BA	Joshua Rabinowitz, MD, PhD	Genetic Determinants of Pyrimidine Analog Sensitivity and Metabolism
88	Rahul Kukreja, BS & Sivani Alla, BS	Minnette Markus-Rodden PhD, RN	Impact of Health Information Technology on Patient Experience

THANK YOU

Thank you for attending the **2024 Medical Student Summer Research Program Symposium.**

We truly appreciate your participation and continued support.

A special thank you to all faculty mentors, lecturers, faculty who served on the fellowship selection committee, facilitators, students, and Research Office staff for their participation in the program.

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