



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

44th Annual
Medical Student Research Day

Hosted by
Office of Student Research, Dean's Office
Alpha Omega Alpha Honor Society

Monday, November 15 and
Tuesday, November 16, 2021
University of Maryland School of Medicine
Baltimore, MD 21201
Two-Day Virtual Event Through Zoom

Event Program

Office of Student Research

Miriam K. Laufer, M.D., M.P.H.
Professor of Pediatrics
Associate Dean for Student Research and Education
Director of the Office of Student Research

Gregory B. Carey, Ph.D.
Associate Professor of Microbiology and Immunology
Assistant Dean for Student Research and Education
Executive Director of Student Research and Community Outreach

Donald R. Matteson, Ph.D.
Associate Professor of Physiology
Assistant Dean for Student Research Education and Dual Degree Programs

Qi Cao, J.D.
Research Coordinator

Fiana Romero
Program Management Specialist

Alpha Omega Alpha Honor Society Members and Additional Event Staff

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Alexandra Vlk

Emily Granger

Serban Negoita

Mashhood Wani

Natalie Hesselgrave

Franklin Ning

Gideon Wolf

Casey Hofstaedter

Maria Novitskaya

Ashling Zhang

John Quinlan

Acknowledgements

We would like to express our gratitude to the Dean's Office for providing the financial support for Medical Student Research Day.

We would also like to express our appreciation for all the research programs, faculty mentors and other mentors who supported and guided the students in their research.

Our special thanks go to the faculty, research associate, resident, fellow, post-doctoral fellow and AOA student member judges who so willingly provided their time and knowledge.

Dr. Hossam Abdou	Dr. Archana Gopalakrishnan	Dr. Nirav Shah
Dr. Brittany Aicher	Dr. Michael Ha	Dr. Kari Ann Shirey
Dr. Pavlos Anastasiadis	Dr. Kim Hankey	Dr. Marey Shriver
Dr. Awadhesh K Arya	Dr. Janette Harro	Dr. Giovannino Silvestri
Dr. Ola Awad	Dr. Bret Hassel	Dr. Sarah Sunshine
Dr. Elizabeth Balcer-Kubiczek	Dr. Laundette Jones	Dr. Hooman Tadbiri
Dr. Aditi Banerjee	Dr. Sunita Khanal	Dr. Flaubert Tchantchou
Dr. Michael Billet	Dr. Robert Lavin	Dr. Julia Terhune
Dr. Jonathan Bromberg	Dr. Madeline Marks	Dr. Richard Thompson
Dr. Xuefang Cao	Dr. Jason Molitoris	Dr. Scott Thompson
Dr. Linda Chang	Dr. May Montasser	Dr. Mohan Tulapurkar
Dr. Wan-Tsu Chang	Dr. Melissa Motta	Dr. Areck Ucuzian
Dr. Svetlana Chapoval	Dr. Warren Naselsky	Dr. Victoria Verhoeve
Dr. William Chiu	Dr. Esther Ndungo	Dr. R. Gentry Wilkerson
Dr. Natalie Davis	Dr. Yuko Ota	Dr. Huichun Xu
Dr. Vasken Dilsizian	Dr. Mohammed Rahman	Dr. Yuji Zhang
Dr. Motomi Enomoto-Iwamoto	Dr. Katharina Richard	Dr. Zhiyong Zhao
Dr. Bob Ernst	Dr. Vikas Saxena	Dr. Qun Zhou
Dr. Margaret Ferris	Dr. David Serre	Dr. Lin Zou

If you would like more information on OSR activities and events, and on student research education and mentoring, please [click here](#). We will follow up with you soon.

Plenary Speakers and Student Panelists Descriptions

Keynote Speaker

Ronna Hertzano, M.D., Ph.D.

Speaker's Journey Description

Debilitating hearing loss afflicts nearly half a billion people worldwide. To date, treatment of hearing loss is based on the severity of the loss, but not based on the cause. Furthermore, there are no FDA-approved therapeutics to prevent or treat noise-induced or age-related hearing loss. As a medical student, I wanted to be able to treat patients with hearing loss, but also obtain a better understanding of the underpinnings of this prevalent disorder. For this reason, I switched to the MSTP program after matriculating to the MD-only tract and continued down this path as a resident and faculty. Today, while caring for patients with otologic disease, I lead a research team based at HSF-III of the UMSOM campus. Our team takes a cell type-specific multi-omic approach to characterize molecular pathways in inner ear development and acquired hearing loss. The results of these studies are used to identify candidate targets to prevent or reverse hearing loss. Finally, to facilitate multi-omic data sharing, visualization and analysis, we developed the gEAR portal, the gene Expression Analysis Resource (umgear.org).

Short Bio

Dr. Hertzano earned her BSc at Tel Aviv University, Israel. She then earned both her MD and PhD degrees at the same institution. Always passionate about research, her MD honors research thesis studies focused on genetic mapping of hearing loss of gene expression in mice. Dr. Hertzano continued her investigation into molecular genetic mechanisms governing congenital and induced hearing loss in her PhD thesis research which titled: "Differential Cochlear Gene Expression".

Dr. Hertzano completed her residency in Otorhinolaryngology (ENT) at UM SOM and proceeded to earn a prestigious fellowship in Otolaryngology-Neurotology in the Department of Otorhinolaryngology-Head and Neck Surgery (ENT HNS). She has risen through the faculty ranks from 2011 to the present and is currently holds the rank of tenured professor with dual appointments in Departments of ENT HNS and Anatomy and Neurobiology at UM SOM. Dr. Hertzano has won more than two dozen prestigious awards and commendations in clinical and basic research fields. She is recognized as a teacher and mentor to medical students, residents and junior faculty and is a servant faculty citizen in the SOM. Her service and activities are too many to mention here. Her grant support includes two active R01 NIH grants as PI, several other grants as PI and, a number of where she collaborates as a Co-I. Moreover, she has several grants pending. She has authored and co-authored 58 original and peer-reviewed articles, a number of which are published in highly prestigious journals. She has contributed to 5 book chapters on hearing and is a highly sought-after speaker in her field. Numerous abstracts and e-publications round out her portfolio. Dr. Hertzano owns a patent for inner-ear transcriptional mapping as related to acoustic trauma. The MSRD planning committee is honored to have Dr. Hertzano give the keynote address in the the 44th annual MSRD celebration.

Student Plenary Speakers and Panelists

Justine Yu (Plenary Speaker, Day 1)

Justine Yu is an MD-PhD student and is part of the UM SOM MSTP (Medical Scientist Training Program). She completed the PhD portion of her program in 2021 in the Fischell Department of Engineering at UMCP. Justine's PhD research has investigated tissue engineering scaffolds for skin regeneration. Justine has returned to UM SOM to complete her 3rd and 4th year of medical studies. She has published a number of articles and has given a number of conference presentations on her research. Justine's research passion is facilitating high quality and rapid skin regeneration following injury or from disease.

Serban Negoita (Plenary Speaker, Day 1, Panelist, Day 2)

Serban Negoita is a fourth-year medical student at UM SOM who is currently engaged in a gap year of research in neuroscience with Dr. J. Marc Simard. Serban has authored an impressive number of original articles and conference abstracts. He has extensive research experience as a medical student and has won awards for his research including the FRCT Certificate for outstanding research achievement. Serban's research passions are neuroscience and neurosurgery.

Rohan Singh (Plenary Speaker and Panelist, Day 2)

Rohan Singh is a third-year medical student at UM SOM. He is currently executing a research year off with Steven Feldman, MD-PhD, in the Dept. of Dermatology at Wake Forest School of Medicine. Rohan has authored several articles and conference abstracts and, he has presented his research in a number of conferences. Rohan's research passion is dermatology and alleviating patient discomfort caused by dermatitis.

Neha Amin (Plenary Speaker, Day 2)

Neha is a fourth-year medical student at UM SOM and a recent winner of the FRCT Certificate for Outstanding Research Achievement. She has published several articles as first author and co-author. She has several articles submitted and in review for publication. Neha has given a number of presentations in oral and poster formats on her research which has been recently focused in the field of ENT.

Christopher Le (Plenary Speaker and Panelist, Day 2)

Christopher Le (Chris) is a fourth-year medical student at UM SOM and recently won the FRCT Certificate for Outstanding Research Achievement. He has published an impressive number of articles as first and co-author and has a number submitted and in review. Chris has won national (extramural) and intramural awards to support his research as a medical student. Chris' research accomplishments are broad and his most numerous contributions are in the field of ophthalmology.

Olivia Uddin (Plenary Speaker and Panelist, Day 2)

Olivia Uddin (Liv) is a third-year medical student with a targeted MD-PhD completion date of 2023. Liv has published an impressive number of articles in neuroscience as first and co-author. She is already in demand as a speaker, giving multiple oral and poster presentations on her work. Liv recently won the NIH's prestigious Outstanding Scholars in Neuroscience Award Program (OSNAP).

MaryJoe Rice (Panelist, Day 2)

MaryJoe Rice is a fourth-year medical student at UM SOM, and she is also a winner of the FRCT Certificate for Outstanding Research Achievement. MaryJoe brought extensive research experience and accomplishments into medical school and since enrolling at UM SOM, she has published a number of additional articles as first and co-author. MaryJoe has presented her research in national and international conferences and has won a national fellowship for her research. Her research and clinical foci are cardiothoracic surgery.

We are proud of all our young scholars, and OSR is especially proud that a number of those scholars began their medical school research journeys with the OSR's PRISM Summer Research Program.

**University of Maryland School of Medicine
Office of Student Research and
Alpha Omega Alpha Honor Medical Society**

44th Annual Medical Student Research Day

Monday, November 15, 2021, 1 – 5:35 p.m. and

Tuesday, November 16, 2021, 1 – 4:30 p.m.

2-Day Virtual Event through Zoom

See [MSRD 2021 Webpage](#) for more information about the event and any updates

General Schedule

Day 1: Monday, November 15

[Zoom Link \(Day 1\)](#)

Opening

1:00 – 1:50 p.m. (Main Room)

1:00 – 1:15 p.m.

Opening Remarks

Gregory B. Carey, Ph.D.

Associate Professor of Microbiology and Immunology

Assistant Dean for Student Research and Education

Executive Director of Student Research and Community Outreach

Director of PRISM and UM Scholars at SOM Programs

Director of STAR-PREP Program

Miriam K. Laufer, M.D., M.P.H.

Professor of Pediatrics

Associate Dean for Student Research and Education

Director of Office of Student Research

Associate Director for Malaria Research

Center for Vaccine Development and Global Health Associate

AOA Student Representative

Maryland Beta Chapter

Alpha Omega Alpha Honor Medical Society

1:15 – 1:50 p.m.

Keynote Address

Title: *From Ear to gEAR - Building a Career as a Surgeon-Scientist at UMSOM*

Ronna Hertzano, M.D., Ph.D.

Professor of Otorhinolaryngology - Head and Neck Surgery

Professor of Anatomy and Neurobiology

Student Plenary Session I **1:50 – 2:20 p.m. (Main Room)**

Special Plenary Presentations by Outstanding Student Researchers

1:50 – 2:05 p.m. *Title: A Nanocomposite Hydrogel for Stromal Cell-Derived Factor-1 Alpha Delivery and Modulation of Macrophage Phenotype for Skin Tissue Regeneration*
Justine Yu, MS III
MD-PhD Candidate (PhD 2021)

2:05 – 2:20 p.m. *Title: The Neurons, the Glia and the Vasculature: My Journey through the Neurosciences*
Serban Negoita, MS IV

2:20 – 2:30 p.m. *Break*

Oral Presentations **2:30 – 5:35 p.m. (Breakout Rooms)**
(See breakout room explanation at the end of the schedule)

2:30 – 4:00 p.m. Oral Presentation Sessions I - IV

4:00 – 4:05 p.m. *Break*

4:05 – 5:35 p.m. Oral Presentation Sessions V - VIII

Day 2: Tuesday, November 16 **[Zoom Link \(Day 2\)](#)**

Student Plenary Session II **1:00 – 2:00 p.m. (Main Room)**

Special Plenary Presentations by Outstanding Student Researchers

1:00 – 1:15 p.m. *Title: Severity of Hidradenitis Suppurativa is Inversely Correlated with Educational Attainment*
Rohan Singh, MS III

1:15 – 1:30 p.m. *Title: Dynamics of the Head and Neck Tumor Microenvironment and the Impact of Immunotherapy*
Neha Amin, MS IV

1:30 – 1:45 p.m. *Title: Cell – Vessel Mismatch in Glaucoma*
Christopher Le, MS IV

1:45 – 2:00 p.m. *Title: Role of the Parabrachial Complex in Rodent Models of Pain*
Olivia Uddin, MS III
MD-PhD Candidate

2:00 – 2:10 p.m. *Break*

Poster Presentations **2:10 – 3:15 p.m. (Breakout Rooms by Presentation ID)**
(See breakout room explanation at the end of the schedule)

2:10 – 2:40 p.m. Poster Presentation Session I (P.02 - P.08)

2:40 – 2:45 p.m. *Break*

2:45 – 3:15 p.m. Poster Presentation Session II (P.09 - P.12, P.14 - P.16)

3:15 – 3:25 p.m. *Break*

Special Student Research Panel **3:25 – 3:55 p.m. (Main Room)**

3:25 – 3:55 p.m. Tips on Being a Productive Student Researcher
Serban Negoita, MS IV
Rohan Singh, MS III
Christopher Le, MS IV
Olivia Uddin, MS III
MaryJoe Rice, MS IV

Awards **4:00 – 4:30 p.m.**

4:00 – 4:10 p.m. Honoring Faculty Mentors: Mentor Recognition Awards
Gregory B. Carey, Ph.D.
Miriam K. Laufer, M.D., M.P.H.

4:10 – 4:25 p.m. Presentation of Student Awards
AOA Student Representative
Maryland Beta Chapter
Alpha Omega Alpha Honor Medical Society


4:25 – 4:30 p.m. Closing Remarks
Gregory B. Carey, Ph.D

Zoom Information

Zoom Link	Meeting ID (for call in only)	For Call in:
Day 1 (11/15)	953 0881 9661	Passcode (both days): 112021 +1 301 715 8592 US (Washington DC)
Day 2 (11/16)	983 1731 2120	+1 929 205 6099 US (New York)

Explanation of Breakout Rooms

Oral and poster presentation sessions will be held in breakout rooms within that day's Zoom session. Once you have joined the Zoom main room, you can choose a breakout room, change rooms, or rejoin the main room during the presentation sessions by following these instructions:

1. Click on “**Breakout Rooms**”  in your meeting controls (typically at the bottom of Zoom window).
This will display the list of open breakout rooms available.
2. Hover your pointer over the number to the right of the breakout room you wish to join, click on “**Join**,” then confirm by clicking on “**Join**.” The breakout rooms will be labeled by the oral presentation session or the poster presentation ID.
3. You can repeat as necessary to join other breakout rooms.
4. Click on “**Leave Room**” to return to the main session.

Note: If you do not use the desktop or mobile app (version 5.3.0 or higher) of Zoom to join the event, you will not be able to self-select a breakout room. If this applies to you, ask the host or co-hosts to help move you into your desired breakout room.

Oral Presentation Schedule

Oral presentations are 15 minutes each.
Presenters are indicated with “*” next to their names.

Day 1, Monday, November 15

Oral Presentation Session I

2:30 – 4:00 p.m.

O.01 2:30 p.m.

UNICOMPARTMENTAL KNEE ARTHROPLASTY PATIENTS HAD LOWER JOINT AWARENESS AND HIGHER FUNCTION AT 5 YEARS COMPARED TO TOTAL KNEE REPLACEMENTS. Zachary Brilliant*, Steven Haas, Thomas Sculco, Seth Jerabek, David Mayman, and Jason Blevins, Department of Orthopaedics, Hospital for Special Surgery, New York, NY.

O.02 2:45 p.m.

CHARACTERIZATION OF PAIN IN PATIENTS WITH UNSTABLE PELVIC FRACTURES TREATED WITH POSTERIOR SCREW FIXATION. Darby Moore*, Vincent Allen*, Gerard Slobogean¹, Robert O'Toole¹, Nathan O'Hara², Danielle Sim³, and Peter Campbell³, ¹Division of Orthopaedic Trauma and ²Division of Research Administration, Department of Orthopaedics, ³University of Maryland School of Medicine, Baltimore, MD.

O.03 3:00 p.m.

PATIENTS' UNDERSTANDING OF SLING NECESSITY IS PREDICTIVE OF SLING WEAR FOLLOWING SHOULDER SURGERY. Jacqueline Addona*, Tristan Weir¹, Ryan Curto², Michael Livesey³, and Mohit Gilotra⁴, ¹Department of Orthopaedics, University of Maryland, Baltimore, ³Department of Orthopaedics, University of Maryland Medical Center, and ⁴Department of Orthopaedics, ²University of Maryland School of Medicine, Baltimore, MD.

O.04 3:15 p.m.

FACTORS AFFECTING DELTOID ELASTICITY MEASURED BY SHEAR WAVE ELASTOGRAPHY IN REVERSE SHOULDER ARTHROPLASTY PATIENTS. Ryan Curto*, Scott Koenig¹, Jacqueline Addona², Raziyeh Baghi³, and Mohit Gilotra¹, ¹Department of Orthopaedics and ³Department of Physical Therapy and Rehabilitation Science, ²University of Maryland School of Medicine, Baltimore, MD.

O.05 3:30 p.m.

PROMIS DEPRESSION AND ANXIETY PREDICT WORSE POSTOPERATIVE FUNCTION IN ORTHOPAEDIC HAND AND WRIST SURGERY PATIENTS. Luke Pitsenbarger*, Samir Kaveeshwar¹, Jason Lynch¹, Ngozi M. Akabudike², Raymond A. Pensy³, and R. Frank Henn III⁴, ²Division of Hand Surgery, ³Division of Trauma, and ⁴Division of Sports Medicine, ¹Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

O.06 3:45 p.m.

UNDERSTANDING THE INSURANCE LANDSCAPE OF DUPUYTREN'S CONTRACTURE MANAGEMENT. Nicholas Hricz*, Michael Ha¹, Kevin Zhu¹, Ledibabari M. Ngaage², and Yvonne Rasko¹, ¹Division of Plastic Surgery, Department of Surgery, University of Maryland School of Medicine and ²Division of Plastic & Reconstructive Surgery, Department of Surgery, Johns Hopkins Hospital, Baltimore, MD.

Oral Presentation Session II

2:30 – 4:00 p.m.

O.07 2:30 p.m.

FUNCTIONAL VALIDATION OF *KPTN* - A NOVEL GENE IMPLICATED IN MACROCEPHALY, EPILEPSY, AND INTELLECTUAL DISABILITY. Rebecca Flessner*, Allan Barnes, Soad Elziny, Janice Babus, Philip Iffland II, and Peter Crino, Maryland Epilepsy Center, Department of Neurology, University of Maryland School of Medicine, Baltimore, MD.

O.08 2:45 p.m.

THE ROLE OF FUNCTIONAL NETWORK FORMATION IN A STIMULATION MODEL OF CORTICAL EPILEPSY. Ujwal Boddeti*, Muzna Bachani, Jemima Owotade, Mitchell Moyer, Riccardo Serra, and Alexander Ksendzovsky, Department of Neurosurgery, University of Maryland School of Medicine, Baltimore, MD.

O.09 3:00 p.m.

COMPARATIVE THERAPEUTIC EFFECTIVENESS OF ANTICOAGULATION AND CONSERVATIVE MANAGEMENT IN TRAUMATIC CEREBRAL VENOUS SINUS THROMBOSIS. Kevin Kim*, Aaron Wessell, Bizhan Aarabi, Timothy Chryssikos, and Gary Schwartzbauer, Department of Neurosurgery, University of Maryland School of Medicine, Baltimore, MD.

O.10 3:15 p.m.

GRADE 1 INTERNAL CAROTID ARTERY BLUNT CEREBROVASCULAR INJURY PERSISTENCE AND WORSENING RISKS STROKE WITH CURRENT MANAGEMENT: AN EAST MULTICENTER STUDY. Sarah Yang*, Margaret Lauerman, and Emily Esposito, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.11 3:30 p.m.

HYPOTHERMIA PLUS GLYBURIDE: A NOVEL SPINAL CORD INJURY THERAPY. Bradley Wilhelmy*, Nageen Sherani*, Vladimir Gerzanich, and J. Marc Simard, Department of Neurosurgery, University of Maryland School of Medicine, Baltimore, MD.

O.12 3:45 p.m.

ASSOCIATION OF PROPHYLACTIC PLATELET TRANSFUSION AND SEVERE INTRAVENTRICULAR HEMORRHAGE IN VERY LOW BIRTH WEIGHT INFANTS. Katherine Raja*, Brenda Hussey-Gardner¹, Mathangi Gopalakrishnan², and Sripriya Sundararajan¹, ¹Division of Neonatology, Department of Pediatrics, University of Maryland School of Medicine and ²Center for Translational Medicine, University of Maryland School of Pharmacy, Baltimore, MD.

Oral Presentation Session III

2:30 – 4:00 p.m.

O.13 2:30 p.m.

CANCER IN PATIENTS WITH AND WITHOUT HIV INFECTION IN THE NATIONAL CANCER REGISTRY OF RWANDA. Asha Kodan*, David Riedel¹, Mark Hagenimana², Nivywa George¹, Uwikindi Francois², and Sabin Nsanzimana², ¹Department of Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD, USA and ²Rwanda Biomedical Centre, Kigali, Rwanda.

O.14 2:45 p.m.

QUALITY OF LIFE ON PHASE I TRIALS (QOL-P1T): A RETROSPECTIVE CHART REVIEW. Mariela Trejo*, Andrea CuvIELlo, and Holly Spraker-Perlman, Division of Quality of Life and Palliative Care, Department of Oncology, St. Jude Children's Research Hospital, Memphis, TN.

O.15 3:00 p.m.

TREAT NOW OR TREAT LATER: COMPARATIVE EFFECTIVENESS OF ADJUVANT THERAPY IN RESECTED STAGE IIIA MELANOMA. Emily Ma*, Yinin Hu, and Julia Terhune, Division of Surgical Oncology, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.16 3:15 p.m.

EVALUATING ADJUVANT CHEMOTHERAPY IN ESOPHAGEAL AND GASTROESOPHAGEAL JUNCTION CANCER BASED ON PATHOLOGICAL RESPONSE TO NEOADJUVANT CHEMORADIOTHERAPY. Riyadh Ali*, Melanie Berger¹, Cristina Decesaris¹, Yixing Jiang², and Jason Molitoris¹, ¹Department of Radiation Oncology and ²Division of Hematology and Oncology, Department of Medicine, University of Maryland School of Medicine, Baltimore, MD.

O.17 3:30 p.m.

ASSOCIATION OF ENTERAL FEEDING PATTERNS WITH INTESTINAL BARRIER FUNCTION IN PRETERM NEONATES. Lisa Roskes*, Bing Ma¹, Rose Viscardi², Alexandre Medina³, and Sripriya Sundararajan², ¹Department of Microbiology and Immunology and ²Division of Neonatology, ³Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD.

O.18 3:45 p.m.

CLINICAL CHARACTERISTICS ASSOCIATED WITH DEVELOPMENT OF NODULAR REGENERATIVE HYPERPLASIA FOLLOWING LIVER TRANSPLANTATION. Soumya Mishra*, Katherine Panagos¹, Ameer Halim¹, Ameer Abutaleb², Saad Malik³, and Sasan Sakiani², ²Division of Gastroenterology and Hepatology, ¹Department of Medicine and ³Division of Transplantation, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

Oral Presentation Session IV

2:30 – 4:00 p.m.

O.19 2:30 p.m.

ESTABLISHING GENE TARGETS OF RFX1/3 AS TARGETS FOR SENSORINEURAL HEARING LOSS TREATMENT. Manaahil Rao*, Kathleen Gwilliam, and Ronna Hertzano, Department of Otorhinolaryngology - Head and Neck Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.20 2:45 p.m.

PROTEOMIC STUDY OF STROKE IN YOUNG ADULTS. William Zhu*, Huichun Xu¹, Brady Gaynor², Braxton Mitchell², and Steven Kittner³, ¹Department of Medicine, ²Department of Epidemiology and Public Health, and ³Department of Neurology, University of Maryland School of Medicine, Baltimore, MD.

O.21 3:00 p.m.

CCN2 KNOCKOUT DEMONSTRATES ENHANCED ACHILLES TENDON HEALING IN ADULT MICE. Danielle Sim*, Kathryn Grescovich¹, Jocelyn Wu², Natalie Leong¹, and Jie Jiang¹, ¹Department of Orthopaedics, ²University of Maryland School of Medicine, Baltimore, MD.

O.22 3:15 p.m.

THE ROLE OF PD-1/PD-L1 RECEPTOR-LIGAND IN THE MIGRATION OF CD8 T CELLS TO PROMOTE IMMUNE TOLERANCE. Emma Silverman*, Jonathan Bromberg, and Wenji Piao, Department of Microbiology and Immunology, University of Maryland School of Medicine, Baltimore, MD.

O.23 3:30 p.m.

INVESTIGATING RECONSTITUTED B LYMPHOCYTES FOLLOWING IMMUNOSUPPRESSION IN A PIG-TO-BABOON CARDIAC XENOTRANSPLANTATION MODEL. Harsha Rao*, Avneesh Singh, Alena Hershfeld, John Treffalls, Corbin Goerlich, and Muhammad Mohiuddin, Division of Cardiac Surgery, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.24 3:45 p.m.

DIFFERENTIAL DENDRITIC CELL RECRUITMENT INDUCED BY THE GUT MICROBIOTA IN CARDIAC TRANSPLANTATION. Zachariah L. Lee*, Jegan Iyyathurai¹, Ram Laxhan¹, Samuel J. Gavzy², Vikas Saxena¹, and Jonathan S. Bromberg³, ³Division of Transplantation, ²Department of Surgery, ¹University of Maryland School of Medicine, Baltimore, MD.

Oral Presentation Session V

4:05 – 5:35 p.m

O.25 4:05 p.m.

INFLAMMATORY CYTOKINES AND COGNITION FOLLOWING HIP FRACTURE. Claire Morton*, Ann Gruber-Baldini¹, Andrew Goldberg², Brock Beamer², and Larry Magder¹, ¹Department of Epidemiology and Public Health and ²Division of Geriatrics, Department of Medicine, University of Maryland School of Medicine, Baltimore, MD.

O.26 4:20 p.m.

THE RELATIONSHIP OF INFLAMMATION WITH ANTIBODIES TO GLIADIN (AGA IGG) IN PERSONS WITH SCHIZOPHRENIA. Emily Daniels*, William Eaton¹, Daniela Cihakova², Chen Mo³, Monica Vladut Talor², and Deanna L. Kelly⁴, ¹Department of Mental Health, Johns Hopkins University School of Bloomberg School of Public Health, ²Department of Pathology, Johns Hopkins University School of Medicine, and ⁴Department of Psychiatry, ³University of Maryland School of Medicine, Baltimore, MD.

O.27 4:35 p.m.

LENS THICKNESS IN CONGENITAL AND CHILDHOOD CATARACTS: A CASE CONTROL STUDY. Sarah Byun*, Alexandra Dolgetta¹, Moran Levin², and Janet Alexander², ²Division of Pediatrics, Department of Ophthalmology and Visual Sciences, ¹University of Maryland School of Medicine, Baltimore, MD.

O.28 4:50 p.m.

IMPACT OF CHRONIC SYSTEMIC STEROIDS ON INTRAOCULAR PRESSURE AND GLAUCOMA IN IBD PATIENTS. Amrik Gill*, Uni Wong¹, Abigail Noyes¹, and Ramya Swamy², ¹Division of Gastroenterology and Hepatology, Department of Medicine and ²Department of Ophthalmology and Visual Sciences, University of Maryland School of Medicine, Baltimore, MD.

O.29 5:05 p.m.

CHARACTERIZATION OF CATARACTS WITHIN TRISOMY 21 PATIENTS USING ULTRASOUND BIOMICROSCOPY. Dhruv M. Shah*, Zahur Fatima Sallman¹, Moran R. Levin², and Janet L. Alexander², ²Division of Pediatric Ophthalmology and Strabismus, ¹Department of Ophthalmology and Visual Sciences, University of Maryland School of Medicine, Baltimore, MD.

O.30 5:20 p.m.

NON-CONTACT LASER SPECKLE CONTRAST IMAGING IN PREMATURE INFANTS WITH RETINOPATHY OF PREMATURITY. Tara Balasubramanian*, Alfred Vinnett¹, Noela Lu², Kristin Williams³, Moran Levin², and Janet Alexander⁴, ³Department of Ophthalmology and Visual Sciences, University of Maryland, Baltimore and ⁴Division of Pediatric Ophthalmology and Strabismus, ¹Department of Ophthalmology and Visual Sciences, ¹University of Maryland School of Medicine, Baltimore, MD.

Oral Presentation Session VI

4:05 – 5:35 p.m

O.31 4:05 p.m.

IMPAIRED REORGANIZATION OF CENTROSOME STRUCTURE UNDERLIES INFANTILE DILATED CARDIOMYOPATHY. Matthew Miyamoto*, Young Wook Chun, Daniel Fong, Charles Williams, and Charles Hong, Division of Cardiology, Department of Medicine, University of Maryland School of Medicine, Baltimore, MD.

O.32 4:20 p.m.

THE ASSOCIATION OF DIASTOLIC DYSFUNCTION AND POSTOPERATIVE MORBIDITY IN GERIATRIC PATIENTS WITH ORTHOPEDIC INJURIES. Ananya Sarkar*, Mira Ghneim¹, Ashley Menne¹, and Justin Richards², ¹Division of Surgical Critical Care, Department of Surgery and ²Division of Trauma Anesthesiology, Department of Anesthesiology, University of Maryland School of Medicine, Baltimore, MD.

O.33 4:35 p.m.

THE IDEAL TRANSCUTANEOUS PACER PAD POSITION. Priya Patel*, Nick Brady¹, and Siamak Moayedi², ²Division of Hyperbaric Medicine, Department of Emergency Medicine, ¹University of Maryland School of Medicine, Baltimore, MD.

O.34 4:50 p.m.

CONTRAST-ENHANCED DUPLEX ULTRASOUND ASSESSMENT OF EXERCISE-INDUCED MICROVASCULAR PERFUSION DEFICITS IN PATIENTS WITH PERIPHERAL ARTERIAL DISEASE. Matthew Chrencik*, Steven J. Prior¹, Eric Christensen¹, Rishi Kundi², and Brajesh K. Lal², ¹Division of Gerontology and Geriatric Medicine, Department of Medicine and ²Division of Vascular Surgery, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.35 5:05 p.m.

EXPLORING THE ROLE OF EPICARDIAL FAT IN ATHEROSCLEROTIC AND INFLAMMATORY STATES. Mark Sonbol*, Nahom Seyoum*, Ian Qian¹, and Jean Jeudy², ²Department of Diagnostic Radiology and Nuclear Medicine, ¹University of Maryland School of Medicine, Baltimore, MD.

O.36 5:20 p.m.

ARE THE PHYSICOCHEMICAL METHOD AND SPECIFIC ELECTROLYTE ABNORMALITIES ASSOCIATED WITH MORTALITY AND MULTIPLE ORGAN FAILURE IN TRAUMA PATIENTS? Nelson Chen* and Justin Richards, Division of Trauma Anesthesiology, Department of Anesthesiology, University of Maryland School of Medicine, Baltimore, MD.

Oral Presentation Session VII

4:05 – 5:35 p.m

O.37 4:05 p.m.

OPTIMIZING SAFETY AND EFFICACY OF INTENSE PULSED LIGHT THERAPY IN SKIN OF COLOR. Elisabeth Fassas* and Gibran Shaikh, Department of Dermatology, University of Maryland School of Medicine, Baltimore, MD.

O.38 4:20 p.m.

PREOPERATIVE FACTORS ASSOCIATED WITH WORSE PROMIS PAIN INTERFERENCE TWO YEARS AFTER HAND SURGERY. Yanni Kevas*, Samir Kaveeshwar¹, Luke Pitsenbarger¹, Raymond Pensy², Christopher Langhammer³, and Frank Henn III⁴, ²Division of Hand surgery, ³Division of Orthopaedic surgery, and ⁴Division of Sports medicine, ¹Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

O.39 4:35 p.m.

PREOPERATIVE EXPECTATIONS ARE NOT INDEPENDENTLY ASSOCIATED WITH TWO-YEAR PATIENT REPORTED OUTCOMES FOLLOWING HAND SURGERY. Brandon Leon*, Samir Kaveeshwar¹, Yanni Kevas¹, Raymond Pensy², and Christopher Langhammer³, Frank Henn III⁴, ²Division of Hand surgery, ³Division of Orthopaedic surgery, and ⁴Division of Sports medicine, ¹Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

O.40 4:50 p.m.

DEFINING COMPLETELY BETTER STATUS THROUGH PATIENT-REPORTED OUTCOMES AFTER ROTATOR CUFF REPAIR. Seyedeh Zahra Mousavi* and Samir Kaveeshwar, Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

O.41 5:05 p.m.

PATIENTS VALUE THEIR OWN PAIN OVER BRAKING SAFETY WHEN DECIDING WHEN TO RETURN TO DRIVING: A DISCRETE CHOICE EXPERIMENT ON LOWER EXTREMITY INJURIES. Nicholas Rolle*, Genaro DeLeon¹, Cynthia Shannon², Gerard Slobogean², Robert O'Toole², and Nathan O'Hara², ¹Division of Orthopaedic Trauma, Department of Orthopaedics, Indiana University School of Medicine, Indianapolis, IN, and ²Division of Orthopaedic Trauma, Department of Orthopaedics, University of Maryland School of Medicine, Baltimore, MD.

O.42 5:20 p.m.

PREOPERATIVE FACTORS THAT IMPACT SURVEY COMPLETION 2 YEARS AFTER ORTHOPAEDIC HAND SURGERY. Matthew Moshyedi*, Brandon Leon¹, Samir Kaveeshwar², and Frank Henn III², ²Department of Orthopaedics, ¹University of Maryland School of Medicine, Baltimore, MD.

Oral Presentation Session VIII

4:05 – 5:35 p.m

O.43 4:05 p.m.

SURGICAL SITE INFECTIONS AMONG HYSTERECTOMIES: AN ASSESSMENT OF PERIOPERATIVE CEFAZOLIN AND METRONIDAZOLE VERSUS CEFAZOLIN ALONE. Jenna Kanner*, TJ Klein¹, and Gautam Rao², ¹Department of Obstetrics, Gynecology and Reproductive Sciences, University of Michigan School of Medicine, Ann Arbor, MI, and ²Division of Gynecologic Oncology, Department of Obstetrics, Gynecology and Reproductive Sciences, University of Maryland School of Medicine, Baltimore, MD.

O.44 4:20 p.m.

PAUSE FOR PUSHING: DOES IT CHANGE THE RATE OF POST-PARTUM HEMORRHAGE? Jennifer Strong* and Sarah Crimmins, Department of Obstetrics, Gynecology and Reproductive Sciences, University of Maryland School of Medicine, Baltimore, MD.

O.45 4:35 p.m.

AN ANALYSIS OF PEYRONIE'S DISEASE INSURANCE COVERAGE. Nicholas Hricz*, Michael Ha¹, Joshua Yoon², Fan Liang², Arthur Nam², and Yvonne Rasko², ¹Division of Plastic Surgery and ²Division of Trauma Plastic Surgery, Department of Surgery, University of Maryland School of Medicine, Baltimore, MD.

O.46 4:50 p.m.

CUMULATIVE SUM IN SURGICAL TRAINING FOR STUDENTS AND RESIDENTS: A SYSTEMATIC REVIEW. Justin Kim*, Ace St John¹, Emilie Ludeman², and Yinin Hu³, ¹Department of Surgery and ³Division of General and Oncologic Surgery, Department of Surgery, University of Maryland School of Medicine and ²University of Maryland Health Sciences and Human Services Library, Baltimore, MD.

O.47 5:05 p.m.

EFFECT OF REMOTE MINDFULNESS-BASED ART WORKSHOPS (MBAW) ON STRESS, ANXIETY, AND DEPRESSION IN MEDICAL STUDENTS. Chaoyang Wang*, Isha Darbari*, Mazen Tolaymat¹, Sandra Quezada¹, John Allen², and Raymond Cross¹, ¹Division of Gastroenterology and Hepatology, Department of Medicine, ²University of Maryland School of Medicine, Baltimore, MD.

O.48 5:20 p.m.

PERCEIVED RISKS AND ACCEPTABILITY OF PSILOCYBIN IN BLACK/AFRICAN-AMERICAN OUD PATIENTS. John Clifton*, Alan Davis¹, Annabelle Belcher², Christopher Welsh², and Aaron Greenblatt², ¹Ohio State University School of Social Work, Columbus, OH and ²Division of Addiction Research and Treatment, Department of Psychiatry, University of Maryland School of Medicine, Baltimore, MD.

Poster Presentation Schedule

Presenters are indicated with “*” next to their names.

Day 2, Tuesday, November 16

Poster Presentation Session I

2:10 – 2:40 p.m.

P.01 (Presenter withdrew from presenting)

P.02 2:10 p.m. [See Poster](#)

EVALUATING THE EFFICACY OF REMOTE VISUAL ACUITY TESTING IN THE PEDIATRIC POPULATION. Rachel Steger*, Elizabeth Fernandez-Paz*, Victoria Chen¹, Sue Junn¹, Noela Lu¹, Janet Alexander², and Moran R. Levin², ²Division of Pediatric Ophthalmology and Strabismus, ¹Department of Ophthalmology and Visual Sciences, University of Maryland School of Medicine, Baltimore, MD.

P.03 2:10 p.m. [See Poster](#)

MATERNAL MARIJUANA USE DURING PREGNANCY AND BREASTFEEDING: ASSESSING IN-HOSPITAL OUTCOMES OF EARLY PRETERM INFANTS. Sarah-Therese Curtis*, Megan Chang¹, and Natalie Davis², ¹Division of Neonatology, Department of Pediatrics, Keck School of Medicine of University of Southern California, Los Angeles, CA and ²Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD.

P.04 2:10 p.m. [See Poster](#)

MATERNAL HISTORY OF ADVERSE CHILDHOOD EXPERIENCES (ACES) AND CANNABIS USE DURING PREGNANCY. Carson Klasner*, Jessica Brown*, Margaret Besse*, and Katrina Mark, Department of Obstetrics, Gynecology and Reproductive Sciences, University of Maryland School of Medicine, Baltimore, MD.

P.05 2:10 p.m. [See Poster](#)

DIAGNOSTIC VALUE OF MUSCLE BIOPSY IN CONJUNCTION WITH NERVE BIOPSY IN EVALUATION OF CLINICAL PRESENTATIONS OF PERIPHERAL NEUROPATHY. Sun Gyeong Choi* and Cheng-Ying Ho, Department of Pathology, University of Maryland School of Medicine, Baltimore, MD.

P.06 2:10 p.m. [See Poster](#)

THE RATES OF ANXIETY AND DEPRESSION AND CORRELATION TO SYMPTOM SEVERITY AMONG PATIENTS WITH PULSATILE AND NON-PULSATILE TINNITUS. Allison Williams*, Saikrishna Gourishetti¹, Marissa Flaherty², and David Eisenman³, ²Department of Psychiatry and ³Division of Otolaryngology and Neurotology, ¹Department of Otorhinolaryngology - Head and Neck Surgery, University of Maryland School of Medicine, Baltimore, MD.

P.07 2:10 p.m. [See Poster](#)

CAN A MEDICATION TRACKING SMARTPHONE APPLICATION IMPROVE MEDICATION ADHERENCE IN A PATIENT POPULATION AT HIGH RISK FOR 30-DAY HOSPITAL READMISSION? Anna Apffel*, Daniel Gingold¹, and Andrea Levine², ¹Department of Emergency Medicine and ²Division of Pulmonary and Critical Care, Department of Medicine, University of Maryland School of Medicine, Baltimore, MD.

P.08 2:10 p.m. [See Poster](#)

CORRELATION OF RACIAL FACTORS WITH PATTERNS OF CARE IN PATIENTS WITH GLIOMAS. Jessica Yau*, Mark Mishra¹, Bansi Savla¹, Suneet Waghmarae², Young Kwok¹, and William Regine¹, ¹Department of Radiation Oncology, ²University of Maryland School of Medicine, Baltimore, MD.

Poster Presentation Session II

2:45 – 3:15 p.m.

P.09 2:45 p.m. [See Poster](#)

THE ROLE OF LEUKOTRIENE B4 ON NSAID INDUCED CORNEAL MELTS. Elif Kolanci* and Sarah Sunshine, Department of Ophthalmology and Visual Sciences, University of Maryland School of Medicine, Baltimore, MD.

P.10 2:45 p.m. [See Poster](#)

EVALUATING THE EFFICACY OF TARGETED WRITTEN PATIENT EDUCATION MATERIALS IN THE IMPROVEMENT OF UNDERSTANDING AND OUTPATIENT FOLLOW-UP COMPLIANCE FOR RETINOPATHY OF PREMATURITY. Elizabeth Fernandez Paz*, Rachel Steger*, Rachel Steger¹, Courtney Pharr¹, Victoria Chen², Janet Alexander³, and Moran Levin³, ³Division of Pediatrics, ²Department of Ophthalmology and Visual Sciences, ¹University of Maryland School of Medicine, Baltimore, MD.

P.11 2:45 p.m. [See Poster](#)

IDENTIFYING BARRIERS TO MOTHER'S MILK FEEDING IN EARLY PRETERM BLACK INFANTS IN AN URBAN NEONATAL INTENSIVE CARE UNIT. Sarah-Therese Curtis*, Megan Chang¹, and Natalie Davis², ¹Division of Neonatology, Department of Pediatrics, Keck School of Medicine of University of Southern California, Los Angeles, CA and ²Division of Neonatology, Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD.

P.12 2:45 p.m. [See Poster](#)

COMPARISON OF GROUP PRENATAL CARE VERSUS STANDARD INDIVIDUAL PRENATAL CARE FOR PATIENTS WITH DIABETES IN PREGNANCY. Hannah Palmer*, and Sarah Crimmins, Division of Maternal Fetal Medicine, Department of Obstetrics, Gynecology and Reproductive Sciences, University of Maryland School of Medicine, Baltimore, MD.

P.13 (Presenter withdrew from presenting)

P.14 2:45 p.m. [See Poster](#)

OUTCOMES AND PATIENT SATISFACTION OF DELAYED DISTAL BICEPS REPAIRS WITHOUT GRAFT AUGMENTATION: A SYSTEMATIC REVIEW. Serge Tzeuton*, William Johns¹, Surena Namdari², Michael Ciccotti³, and Sommer Hammoud³, ²Division of Shoulder and Elbow Surgery and ³Division of Sports Medicine, ¹Department of Orthopaedics, Rothman Institute at Sidney Kimmel Medical College, Philadelphia, PA.

P.15 2:45 p.m. [See Poster](#)

COVID-19 VACCINE HESITANCY IN EMERGENCY DEPARTMENT PATIENTS: AN ANALYSIS OF UNIVERSITY OF MARYLAND MEDICAL CENTER DATA FROM THE

REVVED-UP STUD. Kurt Auville*, Benjamin Coleman*, Kyra Lasko, and Gentry Wilkerson, Department of Emergency Medicine, University of Maryland School of Medicine, Baltimore, MD.

P.16 2:45 p.m. [See Poster](#)

ASSESSING APPROPRIATENESS OF RESPIRATORY CULTURES IN MULTIPLE ICU SETTINGS TO IDENTIFY OPPORTUNITIES FOR DIAGNOSTIC STEWARDSHIP.

Meghana Patel*, Surbhi Leekha¹, Blaine Kenaa², Mary Maldarelli³, and Kimberly Claeys⁴, ¹Division of Infectious Disease, Department of Epidemiology and Public Health and ²Division of Pulmonary Critical Care, ³Department of Medicine, University of Maryland School of Medicine and ⁴Department of Pharmacology, University of Maryland School of Pharmacy, Baltimore, MD.