

VIRGINIA TECH CARILION SCHOOL OF MEDICINE



**CLASS OF 2023 COMMENCEMENT**

Saturday, May 6, 2023  
9 a.m.



The Jefferson Center  
Roanoke, Virginia

# ORDER OF EVENTS

## Processional

Pomp and Circumstance, *March No. 1 in D Major* by Sir Edward Elgar  
Audience Please Rise

## Welcome

Lee A. Learman, M.D., Ph.D.  
Dean  
Virginia Tech Carilion School of Medicine

G. Don Taylor, Ph.D.  
Executive Vice Provost  
Virginia Tech

## Commencement Addresses

Sahana Nazeer, President, Class of 2023 Guiding Principles  
Shashank Somasundaram, Class of 2023  
Luma Abunimer, Class of 2023

Vydia Permashwar, MBBS  
Associate Professor of Pediatrics  
Virginia Tech Carilion School of Medicine

Matthew T. Joy, M.D.  
Alumnus, Virginia Tech Carilion School of Medicine's Class of 2014  
Assistant Professor of Surgery  
Virginia Tech Carilion School of Medicine

## Keynote Speaker

Danny TK Avula, M.D.  
Commissioner of the Department of Social Services for Virginia

## Presentation of Degree Recipients

Aubrey L. Knight, M.D.  
Senior Dean for Student Affairs  
Virginia Tech Carilion School of Medicine

## Presentation of Hoods and Diplomas

Welcome to the Profession  
Lee A. Learman, M.D., Ph.D.

## Recessional

*Hornpipe from Water Music* by George Frideric Handel

## CLASS OF 2023

### **Luma Nasser Abunimer**

Transitional/Radiology—Emory University School of Medicine, Atlanta, Georgia

Radiology-Diagnostic—Emory University School of Medicine, Atlanta, Georgia

Research Topic:

Sound Sleep with Parkinson's: Nighttime Auditory Therapies to Improve Learning and Impede Disease Progression

Mentor:

Sujith Vijayan, Ph.D.

### **Oscar Bruno Alcoreza, Jr.**

Surgery-Preliminary—Brigham and Women's Hospital, Boston, Massachusetts

Anesthesiology—Brigham and Women's Hospital, Boston, Massachusetts

Research Topic:

Modulating System xc- Activity as a Treatment for Epilepsy

Mentors:

Harald Sontheimer, Ph.D. and Susan Campbell, Ph.D.

### **Anthony Patrick Anzivino**

Physical Medicine and Rehabilitation—The MetroHealth System/Case Western University, Cleveland, Ohio

Research Topic:

Histotripsy for the Treatment of Uterine Leiomyomas: A Feasibility Study in ex vivo Uterine Fibroids

Mentor:

Eli Vlasisavljevich, Ph.D.

### **Neslihan Ari**

General Surgery—University of Rochester/Strong Memorial Hospital, Rochester, New York

Research Topic:

What Factors are Associated with the Development of Long-Term Opioid Use following Musculoskeletal Surgery?

Mentors:

Cassandra Mierish, M.D., Katie Love-Bower, M.D., and Allison Tegge, Ph.D.

### **Patrick Charles Barrett**

General Surgery—Swedish Medical Center, Seattle, Washington

Research Topic:

Can Video-Assisted Therapy Replace In-Person Occupational Therapy After CMC Arthroplasty? A Noninferiority Study

Mentor:

Peter Apel, M.D., Ph.D.

### **Shyam Hitarth Bhatt**

Psychiatry—University of Maryland Medical Center/ Sheppard Pratt Hospital,  
Baltimore, Maryland

Research Topic:

Presenting Information to Promote Vaccines

Mentors:

John Epling, M.D., and Michelle Rockwell, Ph.D.

### **Shawna Elizabeth Bilton**

Internal Medicine—Massachusetts General Hospital, Boston, Massachusetts

Research Topic:

The Role of Casein Kinase 1 Epsilon in Temozolomide Sensitivity in Glioblastoma Stem Cells

Mentor:

Zhi Sheng, Ph.D.

### **Katherine Anastasia Brow**

Obstetrics and Gynecology—Barnes-Jewish Hospital, St. Louis, Missouri

Research Topic:

A Mixed Methods Approach to Informing the Development of a Lifestyle Modification Program  
for Endometrial Cancer Survivors: a RE-AIM-Based Brainwriting Premortem

Mentors:

Shannon Armbruster, M.D., MPH and Samantha Harden, Ph.D.

### **Anna Catherine Buhle**

Obstetrics and Gynecology—Carolinas Medical Center, Charlotte, North Carolina

Research Topic:

Characterization of the Uptake of Small Extracellular Vesicles Derived from Cow's Milk  
in the Gastrointestinal Tract

Mentors:

Rob Gourdie, Ph.D. and Jane Jourdan, Ph.D.

### **Kendal Elizabeth Carter**

Obstetrics and Gynecology—New Hanover Regional Medical Center,  
Wilmington, North Carolina

Research Topic:

Biomechanical Comparison of Arthroscopic Suprapectoral Biceps Tenodesis

Pull-out Strength: A Novel Technique

Mentors:

John Tuttle, M.D. and Vincent Wang, Ph.D.

### **Davin Thomas Combs**

Emergency Medicine—Carilion Clinic-Virginia Tech Carilion School of Medicine,  
Roanoke, Virginia

Research Topic:

Effect of an Initial Whole Blood Massive Transfusion Protocol on Trauma Induced Coagulopathy  
at a Level One Trauma Center

Mentor:

Bryan Collier, D.O.

### **Madeline Laura D'Aquila**

General Surgery—Yale New Haven Hospital, New Haven, Connecticut

Research Topic:

Vascular Endothelial Growth Factor-A Signaling Drives Pericyte Coverage in Developing Retinal Blood Vessels

Mentor:

John Chappell, Ph.D.

### **April C. DeStefano**

Neurology—University of Vermont Medical Center, Burlington, Vermont

Research Topic:

Antithrombotic Agent Management in Patients with Central Nervous System Trauma

Mentor:

Bryan Collier, D.O.

### **Alyssa Nicole DeWyer**

General Surgery—Carilion Clinic-Virginia Tech Carilion School of Medicine, Roanoke, Virginia

Research Topic:

Evaluation of In-Hospital CPR Duration and Patient Recovery

Mentor:

Chad DeMott, M.D.

### **Kathryn Marie Hardin**

Otolaryngology—Emory University School of Medicine, Atlanta, Georgia

Research Topic:

Ultrastructural Effects of Modulating Calcium Handling in the Cardiac Intercalated Disc

Mentors:

Steven Poelzing, Ph.D. and Gregory Hoeker, Ph.D.

### **Lauren Heather Hennis**

Obstetrics and Gynecology—Carilion Clinic-Virginia Tech Carilion School of Medicine, Roanoke, Virginia

Research Topic:

Localizing the Expression of Piezo2 in Healthy and Diseased Human Lung Tissue

Mentors:

Andrew Binks, Ph.D. and Renee LeClair, Ph.D.

## **ABOUT OUR REGALIA**

The gowns of today's graduates may look like ordinary regalia from a distance, but they bear a distinction: they are made from 100-percent recycled material. Each gown in today's ceremony is made from approximately 23 plastic bottles! Based in Salem, Virginia, the gowns' manufacturer—Oak Hall—is one of the largest cap-and-gown facilities in the country.

The graduates' hoods are symbolic in many ways. At 48 inches, their length is customary for hoods representing doctoral degrees. Their velvet trim is green, the traditional color for the field of medicine. They are lined with silk panels of maroon, to represent Virginia Tech, and blue, to represent Carilion Clinic.

### **Leah Liya Huang**

Internal Medicine—University of Southern California, Los Angeles, California

Research Topic:

Evaluating the Role of the PIK3CB Pathway in Temozolomide Resistance in Glioblastoma

Mentor:

Zhi Sheng, Ph.D.

### **Seo Hyun Kim**

Internal Medicine—University of California San Diego Medical Center, San Diego, California

Research Topic:

A Novel Indel Mutation in the Variable Domain of DNM1L Causes Myoclonic Ataxia and Tremor Associated with Impaired Mitochondrial Dynamics and Function

Mentor:

Sarika Srivastava, Ph.D.

### **Camden Emmett Kurtz**

Emergency Medicine—Barnes-Jewish Medical Center, St. Louis, Missouri

Research Topic:

Using Machine Learning to Inform the Underreporting of Traumatic Brain Injury (TBI) in Older Adults

Mentors:

Damon Kuehl, M.D. and Allison Tegge, Ph.D.

### **Maya Langman**

Neurological Surgery—Medical College of Wisconsin Affiliated Hospitals, Milwaukee, Wisconsin

Research Topic:

Ultrasound-Guided Histotripsy for Canine Brain Tumor Ablation through a Biocompatible, Sonolucent Cranial Implant

Mentor:

Eli Vlasisavljevich, Ph.D.

### **Mina Han Lee**

General Surgery—University of San Francisco-Fresno, Fresno, California

Research Topic:

Hypertensive Disorders of Pregnancy: Characterizing Fetal Placental Vascular Remodeling, Inflammation, and Pericytes

Mentors:

John Chappell, Ph.D. and Allison Durica, M.D.

### **Macy Cordts Marcucci**

Family Medicine—Duke University Medical Center, Durham, North Carolina

Research Topic:

Not a Blank Slate: A Study of Whether and How Pre-Medical Education and Individual Identity Shape Medical Student Perspectives on the Social Determinants of Health

Mentor:

Rebecca Hester, Ph.D.

### **Richard Daniel McLane**

Internal Medicine—Duke University Medical Center, Durham, North Carolina

Research Topic:

Using Remote Dielectric Sensing in Making Discharge Decisions for Patients with Advanced Heart Failure

Mentor:

Daniel Pauly, M.D., Ph.D.

### **William Gamble Boyd Morrison, IV**

Internal Medicine—University of Massachusetts Chan Medical School,  
Worcester, Massachusetts

Research Topic:

Patients Undergoing Direct Lateral Interbody Fusion with Posterior Spine Fusion Experience Similar Short-Term Functional Performance Deficits and Patient-Reported Outcomes to Patients Undergoing Posterior Spine Fusion Alone

Mentors:

Jonathan Carmouche, M.D. and Robin Queen, Ph.D.

### **Sahana Nazeer**

Child Psychiatry—Brigham and Women's Hospital, Boston, Massachusetts

Research Topic:

Assessing Trust and Resilience Between Mothers with Borderline Personality Disorder and Their Children

Mentor:

Anita Kablinger, M.D.

### **Kyle John Nolan**

Obstetrics and Gynecology—Carilion Clinic-Virginia Tech Carilion School of Medicine,  
Roanoke, Virginia

Research Topic:

Pericyte Heterogeneity Identified by 3D Ultrastructural Analysis of the Microvessel Wall

Mentor:

John Chappell, Ph.D.

### **Kevin Patel**

Surgery-Preliminary—Carilion Clinic-Virginia Tech Carilion School of Medicine,  
Roanoke, Virginia

Anesthesiology—University of Maryland Medical Center, Baltimore, Maryland

Research Topic:

Nanoparticle-Mediated Histotripsy (NMH) for Non-Invasive and Targeted Ablation of Breast Tumors Cells

Mentor:

Eli Vlasisavljevich, Ph.D.

### **Abra Lynn Roberts**

Pediatrics—University of Virginia, Charlottesville, Virginia

Research Topic:

Transcriptional Response to Mitochondrial Dysfunction in Developing Cortical Projection Neurons

Mentor:

Anthony LaMantia, Ph.D.

### **Rebekah Lee Sayre**

Pediatrics—University of Maryland Medical Center, Baltimore, Maryland

Research Topic:

Pilot Study: Evaluating the Use of Standardized Injury Videos on First-Time Paramedic Student Recognition of Appropriate and Effective Tourniquet Use

Mentors:

Sarah Parker, Ph.D. and Daniel Lollar, M.D.

### **Ellen Elizabeth Shrontz**

General Surgery—Swedish Medical Center, Seattle, Washington

Research Topic:

Investigating the Role of Cx43 mRNA Localization on Protein Translation Regulation during Hypoxia

Mentor:

James Smyth, Ph.D.

### **Shashank Somasundaram**

Emergency Medicine—Yale New Haven Hospital, New Haven, Connecticut

Research Topic:

Characterizing Potentially Avoidable Hospitalizations of Oncology Patients in the Emergency Department

Mentor:

Damon Kuehl, M.D.

### **Michael David Spinosa**

General Surgery—University of Florida College of Medicine-Shands Hospital, Gainesville, Florida

Research Topic:

Comparison of Physician Modified Endovascular Grafts with a ZFEN Platform to Non ZFEN Physician Modified Endovascular Grafts and Commercially Manufactured Devices for Repair of Complex Aortic Aneurysms

Mentor:

Joshua Adams, M.D.

### **Brittany Morgan Stopa**

Neurological Surgery—Carilion Clinic-Virginia Tech Carilion School of Medicine, Roanoke, Virginia

Research Topic:

PSMA versus LAT1 Expression in Glioblastoma Tumor and Endothelial Cells

Mentor:

Sandeep Mittal, M.D.

### **Allison Monette Strauss**

Obstetrics and Gynecology—Kaiser Permanente-Santa Clara, Santa Clara, California

Research Topic:

Development of a Model for the Simulation of and Participant Performance Evaluation in Opioid Overdose Response and Naloxone Administration

Mentor:

Sarah Parker, Ph.D.



### **Chukwuemeka Nnamdi Uwakaneme**

Internal Medicine—New York Presbyterian Hospital-Columbia University Medical Center,  
New York, New York

Research Topic:

Interactions Between Connexin 43 and  $\beta$ -tubulin Isotypes in Glioma Stem Cells

Mentor:

Samy Lamouille, Ph.D.

### **Alyssa Marie Vassallo**

Pediatrics-Primary—University of North Carolina Hospitals, Chapel Hill, North Carolina

Research Topic:

Avoiding a Potential Trigger: A Study of Patient Preference for Blind versus Open Weighing  
in the General Clinic

Mentor:

Benjamin Davis, M.D.

### **Satyanarayana Venkata Vedula**

Internal Medicine-Emergency Medicine—University of Maryland Medical Center, Baltimore,  
Maryland

Research Topic:

Utility of Neutrophil-to-Lymphocyte Ratio in Predicting Patient Outcomes Following  
Traumatic Brain Injury

Mentor:

Bryan Collier, D.O.

### **Leon Yang**

Anesthesiology—Montefiore Medical Center/Albert Einstein College of Medicine,  
Bronx, New York

Research Topic:

Novel Classification of Delirium Subtypes Among Older Elective Surgical Patients with  
Postoperative Delirium

Mentor:

Laura Sands, Ph.D.

### **Sarah Fesahaie Yosief**

Internal Medicine—Duke University Medical Center, Durham, North Carolina

Research Topic:

Feeding Practices during the First Year of Life and Amygdala Growth

Mentor:

Brittany Howell, Ph.D.

### **Alexander David Zhang**

Medicine-Preliminary—Zucker School of Medicine-Northwell NS/LIJ, Great Neck, New York

Radiology-Diagnostic—University of Virginia, Charlottesville, Virginia

Research Topic:

Overcoming Drug Resistance by Targeting Autophagy Regulated by a Long  
Intergenic Noncoding RNA

Mentor:

Zhi Sheng, Ph.D.

## SPECIAL RECOGNITION

### Alpha Omega Alpha Honor Medical Society

*Alpha Omega Alpha Honor Medical Society, a professional medical organization, recognizes excellence in scholarship and the highest ideals in the profession of medicine. Our students who were elected into membership in the Delta Virginia Chapter of Alpha Omega Alpha Honor Medical Society are wearing green and gold honor cords.*

**Katherine Anastasia Brow**  
**Anna Catherine Buhle**  
**Madeline Laura D'Aquila**  
**Chukwuemeka Nnamdi Uwakaneme**

**Lauren Heather Hennis**  
**Seo Hyun Kim**  
**Mina Han Lee**

### Gold Humanism Honor Society

*The Gold Humanism Honor Society honors medical students, residents, physicians, and other exemplars for excellence in clinical care, leadership, compassion, and dedication to service. The Virginia Tech Carilion School of Medicine students who were inducted into the Gold Humanism Honor Society are wearing gold honor cords.*

**Luma Nasser Abunimer**  
**Anthony Patrick Anzivino**  
**Macy Cordts Marcucci**

**Rebekah Lee Sayre**  
**Allison Monette Strauss**  
**Sarah Fesahaie Yosief**

### Aequitas Health Honor Society Fellows

*The Aequitas Health Honor Society honors medical students, residents, and faculty dedicated to the cause of promoting equity in health care to all members of society. The Virginia Tech Carilion School of Medicine students who were inducted into the Aequitas Health Honor Society are wearing white and royal blue honor cords.*

**Luma Nasser Abunimer**  
**Macy Cordts Marcucci**

**Satyanarayana Venkata Vedula**  
**Sarah Fesahaie Yosief**

### Leonard Tow Humanism in Medicine Award

*The Arnold P. Gold Foundation sponsors this annual award to the student at a given medical school who best demonstrates the foundation's ideals of outstanding compassion in the delivery of care; respect for patients, their families, and health care colleagues; and demonstrated clinical excellence.*

**Luma Nasser Abunimer**

### R.L.A. Keeley, M.D. Humanities in Medicine Award

*The Tuberculosis Foundation of Virginia established this award to honor the memory of Dr. R.L.A. Keeley. The recipient is the student who possesses the attributes of humility, citizenship, wisdom, equanimity, leadership, compassion, and magnetism as exemplified by Dr. Keeley.*

**Allison Monette Strauss**

## ABOUT OUR MACE

The ceremonial mace is used in academia as a symbol of an institution's authority to grant degrees. The mace carried in today's ceremony is a gift from Virginia Tech and has a history dating to the university's centennial celebration in 1972. Crafted by Dr. R. B. Holliman, a biology professor at the time, the four-foot-long wooden structure was carried in every subsequent commencement ceremony until 2000, when it was retired for a new "millennium mace." The new — and current — mace was presented to the late Dr. Charles Steger on his installment as the school's 15th president.

## THE HIPPOCRATIC OATH ~ CONTEMPORARY VERSION

*I swear to fulfill, to the best of my ability and judgment, and with the support and encouragement of others, this covenant:*

*I will respect the hard-won scientific gains of those in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.*

*I will apply, for the benefit of my patients, all measures appropriate, avoiding those twin traps of overtreatment and undertreatment.*

*I will practice the art of medicine as well as science, remembering that warmth, sympathy, and understanding may outweigh the use of scalpel or drug.*

*I will not be ashamed to say "I know not," nor will I fail to call in my colleagues when the skills of another are needed.*

*I will remember that I do not care for a patient alone. Rather, I am part of an interprofessional team, all of whom offer their skills to assist with patient care and caring.*

*I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death, recognizing this awesome responsibility must be faced with great humility and awareness of my own frailty.*

*I will remember that I do not treat data or disease, but a sick human being, whose illness may affect family and economic stability. My responsibility includes these related issues, if I am to care adequately for my patient.*

*I will prevent disease whenever I can, for prevention is preferable to cure.*

*I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.*

*If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of serving those who seek my help.*

Today's mace has a handcrafted wooden overlay bearing two metal medallions of the Virginia Tech Carilion School of Medicine's seal. The piece was designed and made by local artist Larry Bechtel.

The mace traditionally leads the procession and recession and is carried by our Academic Committee chair. Today, the mace is being carried by Dr. Christi Stewart.

## Virginia Tech Leadership

*Timothy D. Sands, Ph.D.*  
President

*Cyril R. Clarke, DVM, Ph.D.*  
Executive Vice President and Provost

## Office of the Dean

*Lee A. Learman, M.D., Ph.D.*

<i>Azziza O. Bankole, MBBS</i>	<i>Cynthia B. Morrow, M.D., MPH</i>
<i>Alicia S. Besenyei</i>	<i>David W. Musick, Ph.D.</i>
<i>Nathaniel L. Bishop, D.Min.</i>	<i>R. Brock Mutcheson, Ph.D.</i>
<i>Tracey W. Criss, M.D.</i>	<i>Arthur T. Ollendorff, M.D.</i>
<i>Emily Holt Foerst, Ph.D.</i>	<i>Rebecca R. Pauly, M.D.</i>
<i>Michael J. Friedlander, Ph.D.</i>	<i>Melanie K. Prusakowski, M.D.</i>
<i>Jed D. Gonzalo, M.D., M.Sc.</i>	<i>Tarin A. Schmidt-Dalton, M.D.</i>
<i>Natalie E. Karp, M.D.</i>	<i>David B. Trinkle, M.D.</i>
<i>Aubrey L. Knight, M.D.</i>	<i>Shari A. Whicker, Ed.D., M.Ed.</i>
<i>Leslie E. W. LaConte, Ph.D.</i>	<i>Angelica W. Witcher, Ph.D., MBA</i>
<i>Heidi A. Lane, Ed.D.</i>	

## Department Chairs

<i>John H. Burton, M.D.</i>	<i>Sarah H. Parker, Ph.D.</i>
<i>Michael P. Jeremiah, M.D.</i>	<i>Christopher A. Pierce, M.D. (interim)</i>
<i>Isaiah M. Johnson, M.D.</i>	<i>Paul R. Skolnik, M.D.</i>
<i>Daniel R. Karolyi, M.D., Ph.D.</i>	<i>Jon M. Sweet, M.D.</i>
<i>Joseph T. Moskal, M.D.</i>	<i>Robert L. Trestman, Ph.D., M.D.</i>
<i>Michael S. Nussbaum, M.D.</i>	

## Special Thanks

*Parents, family members, and friends of our graduates who have supported them unconditionally along this journey*

*Members of the Roanoke community who have graciously welcomed and nurtured our students over the years*

*Amanda Wharton Stacey and Kay Davenport, American Sign Language Interpreters*

*Ceremony musicians Gretchen Miller, flute, and Robbie Dummitt, guitar*

## Please Join Us

*You are cordially invited to a reception in Fitzpatrick Hall immediately following the ceremony.*