



Student Trauma and Resuscitation Research Program

Trauma · Orthopedics · Anesthesia · Emergency Medicine
Obstetrics · ACS · Global Health · Public Health

2021

Program Directors

Randi Smith, MD, MPH

Roberto Hernandez-Irizarry, MD

Richard Sola Jr, MD



2021 STaR Students

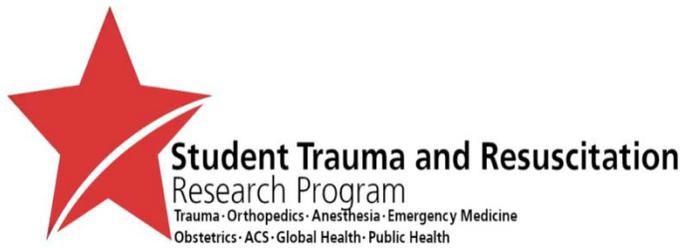
Aashna Mehta
Aditi Dave
Anahita Sattari
Andreya Antoine
Anna Turlej
Ariane Wong
Austin Carey
Avani Patel
Babyode Bakare
Claire Tibbets
Danielle Darius
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Emily Kim
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Krunal Shukla
Kyle Wicker

Laurel Parker
Lauren Ellis
Lilly Groszman
Macie Edwards
Maddy Wetterhall
Marie Smith
Matthew Beblowski
Meghan Alexander
Melanie Shoemaker
Ndidi Ude
Nikolas Holloway
Nithya Rajanala
Philip McKegg
Sara Auger
Shadman Ibnameasud
Shalini Agrawal
Shane Wilson
Stanley Uche
Stormy Orlin
Veronica Prince

2021 STaR Faculty

Dr. Kiesha Fraser Doh
Dr. Deepika Koganti
Dr. Thomas Moore Jr.
Dr. Jonathan Nguyen
Dr. Richard Sola
Dr. Maneesha Agarwal
Dr. Michelle Coleman
Dr. Edward Jackson II
Dr. Janice Bonsu
Dr. Marcos C. Schechter
Dr. Roberto Hernandez-Irizarry
Dr. William Knaus
Dr. Sam Payne

Dr. Stuart Hurst
Dr. April Grant
Dr. Marsha Stern
Dr. Sarah Cook
Dr. Dina Amin
Dr. Corey A. Jones
Dr. Michael Maceroli
Dr. Abimbola Faloye
Dr. Randi Smith
Dr. Caroline Butler
Dr. Amy Zeidan
Dr. Mara Schenker
Dr. Marshall Fleurant
Dr. Sarah Lazarus



Dear STaR Students and Mentors,

The STaR leadership team wants to thank you for participating in the program this summer. We are proud of every one of you and the strong work you have done throughout the summer. We appreciate your feedback and will use it to improve the program moving forward. Just remember that the end of this program is not the end of your mentor-mentee partnership. You will always be part of the STaR family and future mentorship and research possibilities are always available to you. Congratulations on completing the program and we are excited to see your hard work presented at the symposium.

Sincerely,

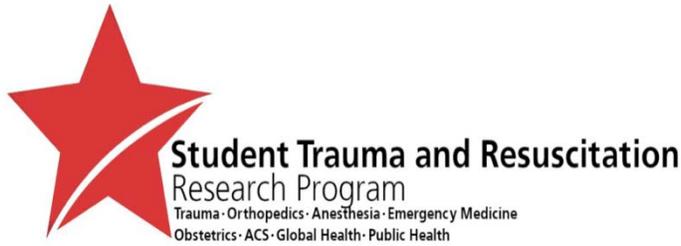
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Richard Sola Jr, MD





Editor's Thank you

Greetings! It has been a pleasure to serve as the voice of our peers in the 2021 Summer Trauma and Resuscitation Program as the booklet editors. We are honored to have received outstanding mentorship from the brightest minds and are thrilled to be able to share the lessons we have learned along the way in this booklet. This opportunity has served as a great steppingstone to prepare for a future medicine, and for many of us, introduced a gateway into a life of clinical research. We thank our program directors Dr. Randi Smith, Dr. Roberto Hernandez-Irizarry, Dr. Richard Sola and all research mentors for graciously guiding us. We wish the best of luck to all participating mentees in their journey to becoming wonderful physicians and leaders!

Delzin Daruwalla & Aditi Dave





Aashna Mehta

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Team Members: Dr. Kiesha Fraser Doh, MD

I am a rising 2nd year at WesternU. I am the eldest daughter of two immigrant parents from India who grew up in Fremont, CA, a city located in the south Bay Area. After high school, I attained my undergraduate degree in Public Health at University of California, Berkeley. Outside of the medical world, I enjoy acrylic painting, reading books, and watching Netflix shows like Friends, The Office, The Good Place, Avatar, Schitt's Creek and Parks & Rec. I love to spend time outdoors hiking, running, snowboarding and swimming at the beach.

I aim to complete my Doctor of Osteopathic Medicine degree in 2024 and aim to pursue either a pediatric or OBGYN residency. Throughout my experiences working at the Children's Hospital Oakland, working with children with special needs in the school district, and conducting two research projects in pediatrics, I came to realize that I truly enjoy spending my time with children and helping them to the best of my ability. However, I am a huge advocate for women's health as well and aim to help women from marginalized communities overcome social and economic barriers to lead healthy lives. Therefore, pursuing OBGYN is a huge interest of mine as well!

The Impact of Adverse Childhood Experiences on Community Gun Violence Exposure

This summer, my research is focusing on Adverse Childhood Experiences (ACEs) and Firearm Injury. According to the CDC, firearms were the leading cause of death in 2019 for American children and teens ages 1-19. Of these youngest victims, nearly 44% are black. Additionally, rates of death from firearms among ages 14 to 17 are now 22.5% higher than motor vehicle-related death rates. ACEs include abuse (sexual, mental, and physical), neglect (mental and physical), as well as forms of household dysfunction (family member incarcerated, mental illness in the family, parents divorced, mother facing violence, etc). This study aims to analyze the trends in gun violence across the Fragile Families and Wellbeing Study (FFCWS), a longitudinal birth cohort study surveying urban youth across 20 cities in America. Furthermore, this study will pull data from the Gun Violence Archive, a national unbiased database that collects information on firearm injuries across the nation and presents data to the public for research purposes.



Dr. Kiesha Fraser
Doh



Stormy Orlin

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Team Members: Dr. Jason Sciarretta MD,

Originally a North Carolina native, I moved to Flowery Branch, Georgia in 2002 where I would ultimately graduate high school and be introduced to the University of North Georgia. UNG, tucked away in the mountains, provided strong familiarity of home and made way for exponential personal growth. In 2014, I graduated with a BBA in Management; though I quickly found success in the Tech space, I felt the strong desire to redirect my focus in a meaningful way that would allow me to care for my community. With the support of my husband George and family, I dove headfirst into medicine. Following the completion of Agnes-Scott's PBPM program, I am now a rising 2nd year at Mercer University School of Medicine.

I enjoy being involved on campus, engaging with peers, and serving my community. I am currently the Class VP, MUSM Ambassador, COVID-19 Vaccination Site Lead, and serve on the executive board of several interests' groups. Outside of school, I am at the river with my dogs, traveling with my husband, catching a barre class, or spending time with family.

In 5 years, I see myself in a surgery residency surrounded by incredibly driven teammates. My mentor, Dr. Sciarretta has shown great patience and instruction as we navigate my first research project! His leadership further demonstrated the depth of knowledge and desire to learn required for this career path.

Distal Pancreatectomy in the Modern Era: Does the past define the future?

This project retrospectively looks at patients who underwent a Distal Pancreatectomy between 1995-2020 at Grady. Data points including closure method, MOI, ISS, RTS, LOS, and demographics will be compared from mid 1990's to present day. The goal is to construct a large, continuously updated, database that can compare and analyze patient data for further research and improved patient outcomes.



Jason Sciarretta MD



Krunal Shukla

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Team Members: Dr. Thomas Moore
Jr., MD

I was born in India, spent my early childhood in Canada, and eventually grew up in a small town in Florida. For my undergraduate studies, I went to the University of Florida and majored in Health Sciences. I am a huge sports fan, especially tennis and basketball. During my free

time, I enjoy playing tennis with friends and family. Currently, I am a rising second year medical student at the Virginia Commonwealth University School of Medicine.

I believe I have learned a lot through my participation in the STaR program. The weekly didactic lectures provided me with a holistic framework that is required to conduct a successful research project. I am thankful to the leadership of the STaR program and my mentor, Dr. Thomas Moore Jr., for always assisting me and answering my questions. As a future physician, I plan to continue to pursue research along with clinical practice. Therefore, this summer, I have gained numerous useful skills that will assist me in my future research endeavors.

The impact of peripheral nerve block on pain management in the orthopedic trauma setting

The reliance on opioid medication in the United States healthcare system has reached alarming levels as its misuse has been largely tied to the opioid epidemic in the US today. Among various researched alternative pain control strategies, the role of peripheral nerve block (PNB) in pain control for the management of acute traumatic orthopedic injuries has become a major topic of interest. The primary objective of our project is to measure the association between PNB and opioid utilization and the secondary objective is to evaluate potential variations depending on PNB timing. We hypothesize that 1) PNB has a significant effect on opioid utilization during inpatient hospitalization and out-patient pain management and 2) that there will be little difference in pain management with regard to PNB administration timing (pre- vs. post-op).



Dr. Thomas Moore Jr.



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Team Members: Dr. Jonathan Nguyen, DO

I am a first-generation Nigerian-American student who was born in New York but grew up in Orlando, FL. I received my B.S. in Biomedical Sciences from the University of Central Florida and later attended Morehouse School of Medicine as a graduate student in the Master of Science in Medical Sciences (MSMS) program. I have always enjoyed keeping myself occupied with extracurriculars. Whether it be through participating in sports, joining different organizations in school, or volunteering in the community, I like to keep myself busy and learn about the world and people around me. In addition to my interest and passion for medicine, photography has always been one of my favorite hobbies. Now as a rising second year medical student, I do not spend much of my time with photography as I did in the past but I still able to bring out my camera from time to time.

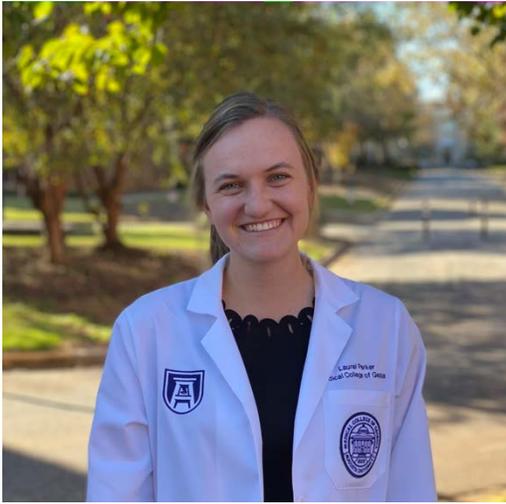
Coincidentally, my parents also hoped and dreamed that I would become a doctor one day. When I was younger, my goal was to become a cardiothoracic surgeon. Now that I have completed my first year of medical school and have been exposed to more specialties, I still want to become a surgeon, but I want to experience and learn about the many more specialties that are out there. Ultimately, I hope to make an impact in my community. Whether that be on a small scale or a large scale, I know that all the work I put in now will transcend to at least one person's life and that is what matters at the end of the day.

Name of Project: Increasing Severity of Adrenal Injury on Contrast-Enhanced Computed Tomography Does Not Mandate Further Evaluation

In this project, patients reported with traumatic adrenal injury (TAI) who received contrast-enhanced computed tomography between 2009-2017 were studied. Evaluations were based on low-grade versus high-grade injuries and studied the difference in hospital length of stay, blood requirement, ventilator need, and mortality rates because of the adrenal. The result of the study shows that there is no statistical difference in these findings whether the TAI is either high-grade or low-grade. This conclusion suggests that regardless of the grade of the TAI, a further intervention is not needed.



Dr. Jonathan Nguyen



Laurel Parker
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Team Members: Dr. Richard Sola, MD

I'm Laurel Parker and I'm from Peachtree City, Georgia. I completed my undergraduate degrees at the University of Georgia, where I studied Biology and Psychology with an area of emphasis in Neuroscience. While at UGA, I was part of two research labs, where I investigated regenerative stroke therapies and also analyzed white matter neural pathways using neuroimaging. Another meaningful experience I had in college was volunteering at Mercy Health Center, which provides medical care to the uninsured and underserved population in Athens, Georgia. I went straight to medical school after my time at UGA and currently serve as the Vice President for the AU/UGA Medical Partnership Class of 2024. I enjoy running, yoga, reading, playing sports, listening to podcasts, and travelling.

After medical school, I plan to start residency in either surgery, pediatrics, or internal medicine. The ongoing joke is that I say I'm going to do residency in whatever we're learning about in school that week! After residency, I also hope to do fellowship in a specific area. However, no matter what field of medicine I end up in, I hope to empower my patients and colleagues alike and provide excellent care.

Head CTs in adolescent blunt trauma patients: are they being overutilized?

Head trauma is one of the principal causes of mortality in the adolescent population, resulting in more than 650,000 emergency department visits each year in the United States. Computed tomography (CT) is considered the optimal imaging modality for assessing head trauma, but recent studies have suggested this imaging technique is overutilized. This overuse is particularly dangerous due to ionizing radiation exposure and is significantly associated with increased cancer incidence in the pediatric population. Although there have been efforts to guide clinical decision-making practices when ordering CTs, such as guidelines by the Pediatric Emergency Care Applied Research Network (PECARN), head CTs are still overutilized. Our study analyzes current use of head CTs through a retrospective chart review. We hypothesize that our center has a high rate of head CTs usage within our adolescent population.



Dr. Richard Sola



Nikolas Holloway
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Team Members: Dr. Jonathan Nguyen, DO

My name is Nikolas Holloway. I was born in Atlanta, Georgia, on September 9th, 1995. I have lived in various suburban counties throughout Georgia but ultimately graduated from Wheeler High School in Marietta, Georgia. I completed my Bachelor of Science in chemistry degree at Georgia State University and graduated in 2018. From a young age, I always had a love for science. I loved reading about space exploration, black holes, and planetary sciences. Freshmen year of undergrad, I realized I enjoyed physics and astronomy more as a hobby than a possible career goal. I then signed up for an EMT course with Grady EMS Academy and began working in EMS. I immediately fell in love with medicine and knew I wanted to continue my education. I am currently a rising second-year medical student at MSM and am excited to see my future career.

I am currently interested in pursuing a career in anesthesiology. I enjoy seeing real-time medicine, managing airways, and deep understandings of physiology. I hope to further my career with a possible fellowship in cardiac anesthesia. I love learning about the heart, and it seems anesthesia can now play a more prominent role in managing patients with significant heart diagnoses.

Surgical Stabilizations of Rip Fractures with Rip Plating

Rip fractures constitute a large number of morbidity and mortality in terms of blunt trauma injuries. Rip plating has been used for decades, mainly as a last-ditch effort to stabilize rib fractures. It was typically only utilized when no other surgical techniques were available, or the patient was still experiencing significant pain. Recently rip plating has been used earlier in trauma patients' management to decrease complications and mortality. No extensive studies have been completed to assess whether this new management is beneficial for rip fracture patients. Our study hopes to shed light on this surgical technique.



Dr. Jonathan Nguyen



Shalini Agrawal
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Team Members: Dr. Maneesha Agarwal, MD

I was born and raised in Palos Verdes, CA, until I attended college at University of California, Irvine. I took pride in my passion for the medical field and graduated with a B.S. in Biological Sciences in 2019.

Growing up, anyone could find me practicing my dance moves in the living room or garage; whether it was Bollywood, Hip Hop, or Contemporary, I expressed myself through the various personalities I could portray on stage. I even continued my love for dance in college by joining a Bollywood dance team called UCI Zamana to compete with other teams all over the country. I enjoyed my gap year between college and medical school gaining hands-on experience as a Medical Assistant at a local urgent care and volunteering at Lestonnac Free Clinic. I am currently a rising second-year osteopathic medical student at WesternU COMP in Pomona, CA, continuing to take in the lovely Southern California weather while honing my medical skills!

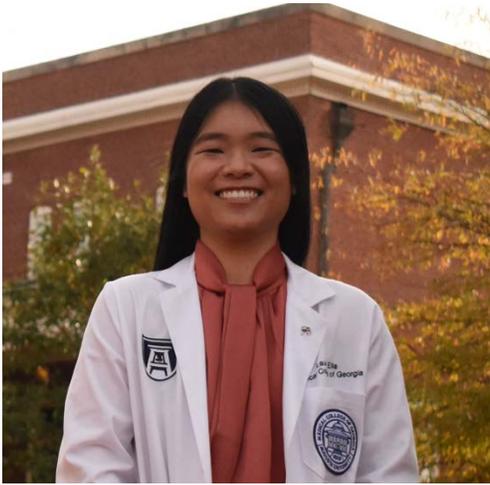
I would like to thank my mentor, Dr. Maneesha Agarwal, for guiding me through my first Pediatric research project this summer. I am very appreciative to be a part of the CHIPP Program this year and join in with the STaR students. While I am still uncertain about which specialty I would like to pursue as a physician, I do know that I love building meaningful long-term relationships with my patients to foster a trusting, comfortable environment. Therefore, I am leaning towards a field such as Pediatrics in which I can see my patients grow and thrive, as well as keep up with them over many years.

Falling Rates of Television Related Injuries in Children

Based on past research, television (TV) related injuries in children have been shown in larger numbers, especially with trauma to the head and neck. With the ongoing changes within the television sales companies to make televisions lighter, safer, and more secure, our goal is to determine whether TV injuries have decreased from 2008-2020. We aim to do this retrospective analysis by looking at the National Electronic Injury Surveillance System to track the trends in TV related injuries in children.



Dr. Maneesha Agarwal



Laura Ellis

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Team Members: Dr. Michelle Coleman, MD, PhD

Lawrenceville, Georgia was where I was raised and created all of my childhood memories. I then became a dawg and attended the University of Georgia. I worked in a protein lab and studies the structure of FUT6 via X-ray crystallography. In 2019, I graduated with a Bachelor of Science in biochemistry and molecular biology. I worked as a scribe in the emergency department before matriculation to the Medical College of Georgia. In my free time, I like to remain active with intense workouts, hikes, or sports. I enjoy time to relax and watch television too. I've lately watched the docuseries F1. I'm excited to travel more and indulge in my foodie side. I love a delicious plate of pesto pasta or beef bulgogi with rice.

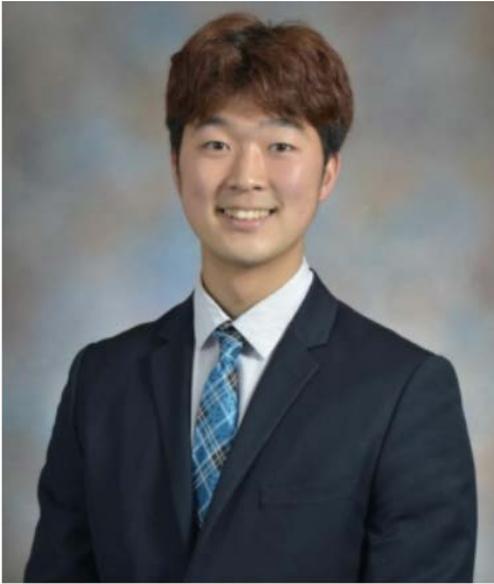
Previous experiences ignited my intrigue for procedural and surgical medicine. I'm particularly interested orthopedics. Thus, I'm extremely appreciative of the opportunity to cultivate my ambitions. I would like to thank all who made the program possible. Thank you to Dr. Smith, Dr. Hernandez-Irizarry, and Dr. Schenker. Thank you to all the guest lecturers. Above all, I would like to thank my mentor, Dr. Coleman. She continuously pushes, guides, and supports me throughout my journey. I'm thrilled to continue my work on the project and grow as a student!

Prevalence & Treatment Trends of Clinician-Diagnosed Charcot Neuroarthropathy in the United States

Charcot neuroarthropathy presents as a rare, progressive, and destructive joint condition. Patients experience a lack of sensory innervation and vigorous inflammation, which leads to bony destruction and joint subluxation in the setting of routine weight-bearing activities. In the United States, there are currently no true epidemiological studies on prevalence, demographics, or comorbidities because of the rarity of the condition. Via the Truven Market Scan database, our project aims to do take on a modern evaluation of Charcot Neuroarthropathy. Therefore, we hope to address the epidemiology and treatment trends for patients with Charcot Neuroarthropathy in the United States.



Michelle Coleman, MD, PhD



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Team Members: Dr. Michelle Coleman (MD, PhD), Dr. Edward Jackson II (MD), Janice Bonsu (MD, MPH)

I was born in Atlanta and have spent my entire life living in Georgia. I lived in Alpharetta for a few years before moving to Johns Creek, where I attended Northview High School. Upon graduating in 2019, I am currently a rising junior at Johns Hopkins University in Baltimore where I am majoring in Applied Mathematics and Statistics. At school, I have been involved in a Neuro-Oncology Clinical Research Lab, as well as a Sports Analytical Research Team where I have worked on a project regarding optimal outfield defensive positioning for baseball teams. Outside of the classroom, I enjoy going to the gym, playing the trumpet, and watching TV (Netflix, Sports, etc.).

My interest in Orthopedics stems from my love for sports. As an avid baseball fan, my hope is to one day become a Sports Medicine Orthopedic Surgeon for the sports teams in Georgia, particularly the Atlanta Braves.

I want to thank Dr. Coleman and Dr. Jackson for mentoring and guiding me this summer during my first taste of orthopedic research. I would also like to thank Dr. Schenker and the STaR Program for giving me an opportunity to participate even as just an undergraduate.

Association of USMLE Step 2 with OITE and ABOS Exam Performance.

One in 10 post-residency orthopedic surgeons fail the American Board of Orthopedic Surgery Part 1 Certifying exam (ABOS) each year in the United States. Traditionally, USMLE Step 1 and annual Orthopedic In-Training Exam (OITE) scores have been used to predict performance on ABOS, but as the USMLE Step 1 exam is transitioning from a 3-digit reported score to a pass/fail exam, renewed interest on the association of Step 2 CK with future board examination performance has arisen. Despite the potential importance of Step 2 CK on OITE and ABOS performance, very little is known about its correlation to the examinations. From the data collected, we would like to evaluate the association between the USMLE Step 2 CK Exam on OITE and ABOS performance. And our long-term goal is to describe a quantitative relationship between the exams in order to inform efforts to improve orthopedic surgical residency education and board preparation.



Dr. Edward Jackson II



Anna Turlej
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Team Members: Marcos C. Schechter, MD

I was born in Massachusetts and was mainly raised here in Georgia. From a young age, I was interested in becoming a physician. This led me to attend the University of Georgia, where I earned a BSc degree in Biology. While at UGA, I did research in a lab and worked in the local emergency department. I enjoyed studying in Athens so much that I decided to attend medical school at the AU/UGA Medical Partnership Campus of the Medical College of Georgia. In my free time, I like to go to the gym or attend yoga class, go hiking with my terrier, and visit family in Europe.

Interested in trying clinical research, I chose to spend this summer prior to M2 year in the STaR research program. I am grateful to have had this opportunity, as it has given me insight into the complexity of orthopedic infections. I would like to thank my wonderful mentor Dr. Marcos C. Schechter for his patience in guiding me through research. I'd also like to thank Dr. Federico Palacio Bedoya for his input on our project. Finally, I would like to thank every one of the STaR program directors for mentoring our group of students and organizing the program didactics.

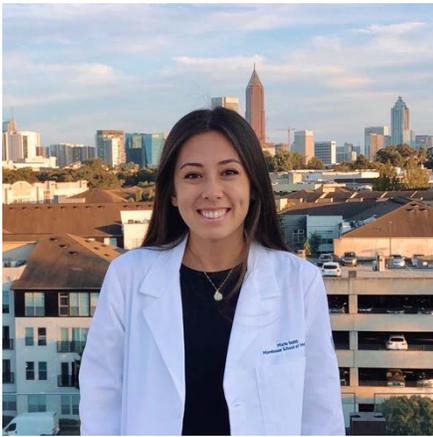
I am excited to be entering my second year of medical school at the Medical College of Georgia. At this stage of my education, I am open to various specialties, but I have been interested in internal medicine and the idea of completing a fellowship. Our research project on orthopedic infection treatment has allowed me to explore infectious diseases as a career option, as well as learn more about orthopedic trauma. Regardless of my future specialty, I additionally hope to get involved in improving public health and to continue doing research throughout my medical career.

Antibiotic Impregnated Nails at the Grady Health System

The aim of this retrospective chart review is to characterize the use of antibiotic cement impregnated implants for treatment of fracture-related infections (FRIs) at Grady's Level I Trauma center. Fractures and orthopedic fixation procedures can lead to devastating FRIs, requiring costly orthopedic & infectious diseases care. Prior research suggests that antibiotic cement spacers and antibiotic cement coated intramedullary nails effectively treat FRI due to their ability to elute antibiotics into bone. For this retrospective study, I am collecting information from EPIC charts of patients that received antibiotic cement coated implants at Grady, including demographics, fracture type, microbiology, procedure methods, systemic and cement antibiotics, and outcomes. We hope to contribute to understanding about this treatment for future improvement of indications and standardization of methods.



Dr. Marcos Schechter, MD



Grace (Marie) Smith
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Team Members: Dr. Roberto Hernandez-Irizarry, MD

I was born in Lilburn, GA and lived there until I moved to Athens to attend the University of Georgia, where I completed a bachelor's degree in Chemistry and a Master of Public Health concentrating in epidemiology. During my time at UGA, I worked as a research assistant on several projects including developing nanoparticle agents for drug delivery and medical imaging, identifying risk factors for mortality in single ventricle heart defect patients, and analyzing the association between childhood financial stress and adult chronic disease. As a Master of Public Health student, I studied how social inequities drive disparities in medicine and public health, and I became very passionate about the field. This led me to apply to and attend Morehouse School of Medicine, as their mission focuses on rectifying these disparities and improving the health of underserved communities and people of color.

Outside of school, my favorite hobbies are distance running and hiking. My love of physical activity is what inspired my interest in orthopedic surgery and other movement related specialties. As I continue medical school, I plan to remain involved in orthopedics research, and I would also like to start projects in other fields I am interested in, such as anesthesiology and physiatry.

I would like to thank Dr. Roberto Hernandez-Irizarry for his efforts serving both as my mentor and as a leader of the STAR program with Dr. Randi Smith. I would also like to thank Dr. Mara Schenker and Dr. Richard Sola for connecting me with my current mentor and project. Lastly, I want to thank Ms. Erika Ortega for all of her hard work coordinating the STAR program this summer.

Early Biomarkers for Infection in Orthopedic Trauma Patients

Post-operative infections are the most common complication in orthopedic surgeries involving hardware and can be very resistant to treatment. Prolonged infection can lead to severe negative outcomes, including hardware failure, impaired bone healing, and sepsis. If these issues occur, patients may require long-term antibiotic use or repeat surgery to repair damage. The goal of this study is to identify early systemic biomarkers for infection in tibia fracture patients, so that infections may be treated before these complications arise. We will do so by collecting and analyzing intraoperative blood samples for immune biomarkers, specifically certain T and B cells, and then use multivariate modeling to evaluate if any found biomarkers are associated with post-operative infection.



Dr. Roberto Hernandez-Irizarry



Avani Patel

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Team Members: Dr. William Knaus, MD, Dr. Sam Payne, MD, Sara Kebede

I was born and raised in a small town known as Tallapoosa, GA on November 13, 1997. I lived there until I moved to Athens, GA to attend the University of Georgia. With my future aspirations of working in the medical field, I majored in Biology while partaking in volunteer activities at local health clinics, hospice homes, and hospitals. Aside from my volunteer work, I also participated in bench research where I examined the effects of a newly synthesized dietary supplement on blood glucose and body weight. This opportunity sparked my interest in medical based research and helped fuel my desire to learn more. With the compassion and inspiration to become a physician, I made my way to Mercer University School of Medicine. I am thankful for the opportunity to continue my path of life-long learning to help patients become a better version of themselves. Aside from school, I enjoy doing arts & crafts, painting, baking, hanging out with friends, and exploring new places.

Upon completion of medical school, I would like to help serve the underserved. Although I am still undecided as far as which specialty I'd like to pursue, I do know that I want to be able to make a difference in my patient's lives and build strong relationships with them. Throughout my life, I have had many care-taker roles for close family members who have had debilitating conditions. Through these experiences, I learned how to devote myself to care for another life and witnessed how important it is to be empathetic, dependable, and a good listener. I hope to apply these same traits to my future patients and treat them as if they were my own family.

Patient Reported Outcomes of Perilunate Injuries

Perilunate dislocations and fracture dislocations are complex wrist injuries which typically result from high-energy trauma. Although these injuries are rare, they are historically associated with poor outcomes including early onset arthritic changes, chronic pain, & poor overall wrist function. This study was designed to evaluate subjective outcomes of perilunate injuries in patients with medium-length follow-up (2-5 years) through a validated patient-reported outcomes measure (Patient Rated Wrist Evaluation, PRWE). Various clinical factors and patient demographics, such as injury classification subtype, surgical technique, time to surgery, race, & employment status, were gathered retrospectively from the electronic medical record to determine any potential relationships to PRWE results. All data has been gathered, & we are now performing statistical analysis & crafting a manuscript for submission.



Dr. William Knaus



Kyle Wicker

Mercer University School of Medicine

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Team Members: Dr. Stuart Hurst, MD and Dr. Richard Sola, MD

Hello! My name is Kyle Wicker and I was born on June 5th, 1998 at Emory Crawford Long Hospital (now named Emory University Hospital Midtown). Subsequently, I grew up in Atlanta, GA later moving to Austell, GA which is now home. My undergraduate studies were completed at Mercer University where I obtained a Bachelor of Science in Biology with a minor in chemistry. During these undergraduate years I worked as an Advanced EMT in Fulton, Dekalb, Bibb, and Crawford Counties. In addition to this, I was involved as

a Resident Assistant and Saxophone section leader in the Mercer University Wind Ensemble. In my free time I enjoy playing the piano, working on cars, and watching old war films.

Currently, I am interested in pursuing either Internal Medicine or Neurology. After successful completion of residency, I plan on practicing in one of Georgia's many rural and underserved communities. My ultimate career goal would be to make healthcare easily accessible with a special emphasis on serving low-income, uninsured, and Medicaid/Medicare patients.

I want to give a huge thank you to the faculty and staff at STaR for giving me the opportunity to participate in impactful research!

Assessing the need of ionizing radiation to confirm chest tube placement in trauma patients

This summer I worked with Dr. Richard Sola and Dr. Stuart Hurst, two esteemed trauma surgeons who expressed an interest in studying different aspects of chest tube management in patients visiting Emory affiliated hospitals. After reviewing previously established literature, we decided to investigate the necessity of chest x-rays to confirm chest tube placement. This research could prove useful because as we know ionizing radiation damages DNA, which makes different types of cancer more likely to occur. The hope for this research is to provide valuable insight as to the advancement and continuation of chest tube protocol at Emory facilities.



Dr. Stuart Hurst



Dr. Richard Sola



Veronica Prince
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Team Members: Dr. April Grant, MD

Born and raised in the state of Georgia, I attended Lafayette Christian School for high school. I graduated with Honors Distinction from Baylor University in May 2020 with a Bachelor Degree in Medical Humanities and Biology. Upon graduation, I matriculated into Mercer University School of Medicine. During spouts of leisure, I enjoy reading literary works by Black authors, spending time with my family, participating in retail therapy, and playing with my dog, Georgia.

Since early childhood, I experienced fascination at the idea of care centered around the well-being of women. As a student doctor, it is my earnest interest to pursue a career in Obstetrics and Gynecology with the intention of joining physicians in combatting the injustices that Black women experience within the field, improving access to obstetrical and gynecological care among all patient demographics, and enacting change regarding the improvement of the nation's maternal mortality rates.

Thank you to each faculty member and fellow participant who made this experience unforgettable. The insight that I have received regarding professionalism and protocols will remain with me as I continue my educational pursuits.

Evaluation of coagulation parameters and secondary outcomes of PCR+ and PCR-COVID-19 trauma patients within the Grady Memorial Hospital System

The main inquiry of this project was if patients who were PCR+ for the virus exhibited hypercoagulable profiles at baseline compared to PCR- patients with similar ailments. To this effect, a retrospective chart review was utilized to gather demographic and clinical information to include age, sex, medical co-morbidities, injury mechanism, injury severity score, surgeries, procedures, laboratory values, imaging, blood product use, medication administration, length of stay, complications, and mortality. In determining each patient's profile, the following outcomes were studied: coagulation parameters, ICU length of stay, ventilator days, venous thromboembolism events, hemorrhagic events, stroke, and myocardial infarction.



Dr. April Grant



Emily Kim

Emory University

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Team Members: Dr. Marsha Stern, MD, MPH,
and Dr. Sarah Cook, MD

I am from New Jersey, attending school in Georgia, and was born in South Korea. I currently go to Emory University, enrolled as a Chemistry and Neuroscience and Behavioral Biology Major and on the Pre-med track. I enjoy playing volleyball, going outdoors, and spending time with my family and friends.

I aspire to become a physician with a surgical specialty. I fell in love with Dr. Atul Gawande's Complications of a Surgeon; the mindset and attitude of surgeons in their respective fields is very inspiring.

Impact of COVID-19 on Suicide Rates in Dekalb and Fulton County

Dr. Stern, Dr. Cook, and I are examining suicide rates pre-COVID and during COVID in Fulton and Dekalb county for several different factors, such as demographic information (zip codes), gender, age, and the cause.



Anahita Sattari

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Team Members: Dr. Dina Amin, DDS

I am a first-generation Iranian-American and GA native. During my time as an undergrad at Emory University in Atlanta, GA, I did work-study with the Centers for Disease Control and Prevention (CDC), contributing to data entry and literature review for a rabies vaccine clinical trial. After graduating with a B.S. in Chemistry, I interned at The Carter Center with both the Mental Health Program and Special Health Projects, contributing to the health initiatives and programs Liberia, Nigeria, and Sudan. These experiences helped to foster my interest in global health. The year before medical school, I lived in Marseille, France, working as an English teaching assistant in French public primary schools. I speak Persian, Spanish and French. Outside of medicine and human rights advocacy, I enjoy learning languages, watching foreign films, adding stamps to my passport, and attempting to improve my novice status as a tennis player.

I co-founded and serve as Co-President of the Physicians for Human Rights (PHR) Chapter at Mercer University School of Medicine. I am also on the COVID -19 Advocacy Subcommittee of the PHR National Student Advisory Board, working on an initiative towards global vaccine equity. I believe health is a human right and aim to actively reduce health disparities and health inequities for underserved and marginalized populations, notably refugees, immigrants, and internally displaced persons, both locally and globally as a clinician working with Doctors Without Borders/Médecins Sans Frontières. I also aspire to contribute to policy reform, advocating on behalf of my patients to improve health outcomes.

The Therapeutic Potential of Amniotic Membranes for Traumatic Mental Nerve Injuries (TMNI)

I am incredibly grateful for the opportunity to be a STaR program participant and improve my research skills. I have had the pleasure of working with Dr. Dina Amin, DDS, FACS.

Mandibular fractures are the most common facial injuries. Patients who undergo open reduction and internal fixation to surgically treat for parasymphysis and body mandible fractures are at risk for induced traumatic mental nerve injuries (TMNIs). Mental nerve injury can result in reduction of quality of life and chronic pain. Our study investigates the use of Avive™ Soft Tissue membranes in preventing adverse neurosensory changes and enhancing neurosensory recovery in adults who have been surgically treated with ORIF for these types of fractures.



Dr. Dina Amin



Macie Edwards

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Team Members: Dr. Roberto Hernandez-Irizarry, MD

I was born and raised in Hamilton, Georgia. I graduated from the University of Georgia with a Bachelor of Science in Chemistry. I have had a passion for dance since I was very young; this love continued into college where I became the captain of the competitive dance team at UGA. While dancing and working, I found time to volunteer with a local hospice where I was able to interact, care for, and cherish the many memories I made with the patients. This experience shaped who I am and further

strengthened my passion for medicine. I am a rising M2 at Mercer University School of Medicine. This past year I was elected President of Phi Delta Epsilon Medical Fraternity and secretary for the Surgery Interest Group. Outside of studying, I attend CrossFit and am an avid reader. I am thankful for the opportunity to serve as a Grady STaR Research Assistant this summer. Thank you to Dr. Hernandez-Irizarry for being a great mentor and helping me create an important and thoughtful project. Thank you to Dr. Randi Smith and Dr. Mara Schenker for creating this program and giving students the opportunity to learn from them and our mentors.

I am actively working toward my goal of becoming an orthopedic trauma surgeon. Being active as a child, I experienced or saw many injuries making me curious about anatomy and reconstruction. I saw my first orthopedic surgery while doing a medical fellowship in Spain. From then, I have shadowed several orthopedic surgeons in Macon and Athens which strengthened my desire to be in the field. I will continue to do research and shadow to become the best orthopedic trauma surgeon I can.

How Depression Effects Tibial Pilon Fracture Healing

Pilon fractures are notoriously difficult to treat because of their fracture pattern; therefore, our project aims to identify one of the many ways we can potentially help patients with these types of fractures. Depression has many effects on the body that can affect wound healing such as downregulation of cell immune response and stimulation of pro-inflammatory cytokines (i.e., IL-6 and TNF). Our project is taking the Rüedi-Allgöwer classification system and procedure type (use of external fixator, open reduction/internal fixation, and closed reduction) to divide our patients into congruent categories. From here, we will take their scores from the PHQ-2 and PHQ-9 (if applicable) and compare them with post-operative complications. The post-operative complications that we are taking into account include but are not limited to: infection, additional surgeries, osteomyelitis, length of stay, and readmission. Our goal is to take our results and determine whether immediate counseling could help improve the overall outcome.



Dr. Roberto
Hernandez-Irizarry



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Team Members: Dr. Roberto Hernandez-Irizarry, MD

I was born and raised in Port-au-Prince, Haiti. I moved to the United States in 2010 and have since lived in Miami, Florida. I obtained my associate degree at Miami Dade College and completed my Bachelor of Science in Biology with a minor in chemistry at Florida International University. Growing up in Haiti, pursuing a career in medicine was not attainable. Although I always had a strong passion for science and a genuine interest in the processes occurring in the human body, much of life back home was about survival. I envisioned having a job close to home after high school to support my family. Medicine, in a way, found me after the 2010 earthquake in Haiti. Seeing people who survived the quake later died from untreated injuries at the hospitals— forced me to understand that life was much more than just survival, and becoming a physician is my mission to help those struggling to have a second chance at life. Before attending Morehouse School of Medicine, I worked as a tutor and volunteered as a Haitian Interpreter at the University of Miami CHS clinic. I am the current Secretary of the newly founded Black Men in White Coats chapter at Morehouse. This summer, we partnered with Science Academy at Emory University, leading discussion panels about life as a medical student. Apart from medicine, I enjoy watching and playing soccer. Go PSG! I also love repairing cars, and I am currently learning how to play the guitar. This summer was my first experience conducting research.

Social Determinants of Health: The Social Factors that Impact Outcomes of Orthopedic Trauma Patients.

Social Determinants of Health are factors, whether economic (such as job positions, income distribution, wealth, and power), social (such as community safety, education, family size, and food security), that significantly contribute to health care disparities and care outcomes. The National Center for Health Statistics shows that over 83,000 deaths could be avoided yearly across all group ages without health care inequalities. While there are numerous studies on health care disparities in chronic conditions, the effect of social determinants of Health in acute and trauma patients is not well understood. This study retrospectively analyzes data of trauma patients at Grady Hospital to determine whether social Determinants of Health can sufficiently predict fracture care outcomes pre-and post-surgery. The results from this study may help uncover better ways to eradicate health care disparities.



Dr. Roberto
Hernandez-Irizarry



Matthew Ryan Beblowski
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Team Members: Dr. Roberto Hernandez-Irizarry, MD

I was born on March 21st, 1993, in New York City. When I was 3 years old my family moved to Statesboro, Ga and that was my home until I was 24. I graduated from Georgia Southern University in 2017. There I obtained my BS in Biology and minors in Chemistry and Psychology. During my undergraduate career I decided to hike the entirety of the Appalachian Trail, which begins in Georgia and ends in Maine. I participated in research

which helped develop novel mechanism for assessing aquatic habitat health as part of the Ogeechee River Project. After graduation I felt the need to give back to my community. In this pursuit I worked as a counselor for Camp RAD (Recreation for Adolescents with Disabilities). Later I worked as a counselor for Victory Junction a camp for children with chronic or severe illnesses. While applying to medical school, I became a wilderness field instructor for a therapeutic wilderness program. This need to give back led me to Mercer University School of Medicine, where I am now a rising second year.

I am very thankful for the Grady STaR program team for creating such a wonderful summer experience, during these trying times. Dr. Schenker and Dr. Smith put on fantastic weekly didactic sessions, that were relevant and useful in our career goals. My advisor, Dr. Moore has been a spectacular mentor for our research project and has provided career guidance. I am certain that his experience will be invaluable in my career as a physician.

Collateral limb injuries of lower extremity in pedestrian vs Motor vehicle accidents

The aim of this study is to determine the frequency and characteristics of bilateral lower extremity orthopedic injuries in pedestrian vs auto accidents. In addition, we will analyze the frequency and characteristics of occult contralateral lower extremity orthopedic injuries. We will conduct a retrospective chart review of patients in such accidents with lower extremity injuries. In this population we will assess the proportion of bilateral injuries, classifying the injuries, and reviewing the vitals upon admittance. Our hope is to improve the ability of physicians to identify occult injuries, which will prevent further burden on the patient.



Dr. Roberto Hernandez-Irizarry



Melanie Shoemaker

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Team Members: Dr. Richard Sola, MD

Originally born in Georgia, I spent four and a half years of my early childhood living in Singapore before my family moved back to Georgia and settled in Watkinsville. I attended the University of Georgia where I received my bachelor's degree in biology. During my gap years, I worked as a medical assistant and scribe at a geriatrics and internal medicine practice in Athens and interned with the dive operations team

at the Georgia Aquarium. In my free time, I enjoy spending time at the beach, camping, and kayaking around Savannah, Georgia.

I would like to thank the Grady STaR team for providing the opportunity to participate in remote research opportunities despite COVID-19 restrictions. I also would like to thank Dr. Schenker and Dr. Smith for working tirelessly to recruit knowledgeable and engaging speakers for the weekly didactic sessions and for always being accessible for questions and concerns. Lastly, I would like to thank Dr. Sola for his guidance and continued support throughout the program and moving forward.

Analyzing the Utility of Routine Chest X-rays Following Chest Tube Removal in Trauma Patients

No universal guidelines currently exist regarding the use of routine chest x-rays following chest tube removal. While the practice of ordering a routine chest x-ray after chest tube removal is prevalent, very few studies demonstrate its utility. Moreover, recent research in cardiac and pediatric patients shows that this prevailing practice rarely yields significant benefit as a diagnostic tool when determining any necessary interventions. Our study aims to analyze the utility of a routine chest x-ray after chest tube removal by completing a retrospective chart review of approximately one year's worth of trauma patients who received a chest tube. We plan to compare data points such as type of chest tube (pigtail catheters versus large-bore chest tubes), intubation status, number of chest x-rays, and operative interventions.



Dr. Richard Sola



Shane Wilson

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Team Members: Dr. Roberto Hernandez-Irizarry, MD

I was born in Atlanta, Georgia and lived in Peachtree City until I moved off to college. In 2017, I graduated from the University of Georgia with a B.S in Biology. After college I spent most of my gap years working as a scribe in the emergency department. I also volunteered at the Mercy Clinic in Athens and assisted with research at UGA's Department of Kinesiology. I am currently an upcoming M2 at the AU/UGA Medical Partnership. In my free time I like to play sports, mountain bike, and watch the Dawgs play on Saturday.

I had a great time in the STaR program at Emory and want to thank everyone involved for a great summer and a valuable experience!

I have strong interests in orthopedic surgery and emergency medicine. Having spent so much time scribing in the ED, I have grown to enjoy its unorthodox and often fast-paced workflow. There is almost never a dull moment, and I will always have a great story to remember. On the orthopedic side, I have had awesome experiences shadowing surgeons and could see myself working with my hands someday.

Improving the Diagnostic Accuracy of Ipsilateral Femoral Neck and Shaft Fractures

Ipsilateral femoral neck and shaft fractures are a rare injury pattern but mostly occur in young patients after high-energy trauma. While the shaft fractures are obvious, the neck fractures are often hidden and difficult to detect with current imaging protocols. Delays in diagnosing the neck fracture can increase the risk of complications. Our study will assess the utility of a new modality of imaging using data from CT scans from the patient's initial evaluation to create a x-ray-like image (ghost image) that can be rotated and better visualize the femoral neck. Currently I am still collecting data from Grady's trauma database We hypothesize that this new imaging protocol will increase diagnostic accuracy of femoral neck fractures.



Dr. Roberto Hernandez-Irizarry



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Team Members: Corey A. Jones, MD
Michael Maceroli, MD

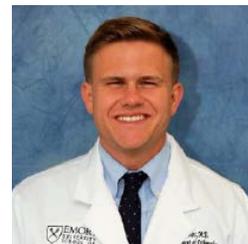
Although originally from Chicago, I moved to Alpharetta, GA when I was 9. After receiving my BS in Chemistry from Georgia Tech, I worked as a Chemist at the CDC for a year under the Tobacco and Volatiles Branch researching on tobacco specific nitrosamines in urine, which are cancerous by products formed inside the body after a reaction during the breakdown of the components of tobacco. My hobbies include spending

time with my family, watching sports, working out, trying new restaurants, and taking day trips. Although I used to love playing sports, a few surgical incisions to the knees and hips have made me add an “e” behind “sport” to modify my hobby.

Per my own personal injuries, I’ve always wanted to go into Orthopedics because I feel like I have a good understanding about the pain and feelings that patients go through as a result of their injuries and the timeline of rehab. Furthermore, I thoroughly enjoy how Ortho Surgeons can increase patient outcomes and quality of life from nothing to something in a very short time. Since entering medical school, other areas have interested me as well including Gastroenterology and Psychiatry—the former because the scopes remind me of joysticks and I love gaming, and the latter because I love pharmacology and enjoy building long-term relationships with people. At the end of the day, I am still deciding whether I want to go into surgery or medicine, and lifestyle is a huge part of the decision.

Higher Altitude Leads to Increased Risk of Venous Thromboembolism after Tibial Plateau Fractures

Tibial plateau fractures require complex surgical intervention associated with an increased length of hospital stay and decreased mobility. Due to the complexity, patients are at heightened risk of venous thromboembolisms (VTEs), which include deep vein thromboses (DVT) and pulmonary embolisms (PE) following this procedure. While studies have shown the rates and outcomes of VTEs following plateau fractures, none have looked at the effects of high altitude which has a known physiologic effect that can result in more favorable conditions for developing VTEs in the postoperative setting. The purpose of this study was to investigate the relationship between tibial plateau fractures occurring at high altitudes and the development of postoperative VTEs.



Dr. Corey A. Jones



Dr. Michael Maceroli



Aditi Dave

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Team Members: Dr. Abimbola Faloye, MD

I grew up in Suwanee, GA, but eventually called Macon my home after graduating with a degree in Biochemistry & Molecular Biology and a minor in Business Administration from Mercer University in 2020, and now starting my second year of medical school at Mercer University School of Medicine. Throughout the last 14 years in my hometown, I've completed training of the Indian classical dance, Bharata Natyam. After seeing how years of mastering my craft via performative art can translate into having a healthy mind and body, I wanted to find a way to continue my passion and see how therapeutic art can be. While captaining a competitive South Asian dance team and teaching art therapy to patients receiving chemotherapy were creative media of healing, it wasn't until living and volunteering in Macon where I began noticing how cultural, socioeconomic, and geographic barriers continue to reinforce healthcare stigmas and contribute to high numbers of unregulated maternal illnesses in underserved communities. Given the preventable nature of these conditions, I believe in a future where I can serve as a primary care physician leader in medically underserved areas to empower women with an array of preventative measures to take responsibility for their health to be the best mothers, daughters, and wives. Aside from these activities, I enjoy traveling with family, doing outdoor activities, watching docuseries and film, and occasionally strumming a few chords on the ukulele.

Thank you so much to Dr. Faloye for being an incredible mentor by guiding me through the ins and outs of research, and thank you to Dr. Randi Smith, Dr. Roberto Hernandez-Irizarry, Dr. Richard Sola, Dr. Mara Schenker, and many other individuals for organizing this amazing opportunity!

Cardiac Complications Associated with Patients Receiving Massive Transfusion Protocol

Massive transfusion protocol (MTP) is a procedure characterized by rapid administration of large volumes of blood products within a set period in response to uncontrolled hemorrhagic. However, risks may be associated with the rapid intake of blood in a short span of time, potentially compromising with the heart's ability to pump blood to the rest of the body. This project aims to investigate the negative cardiac outcomes associated with patients who have received MTP, specifically by analyzing echocardiograms of patients within the last year who have undergone an MTP and determining any correlations between clinical markers and the likelihood of complications from the protocol. We hope through this study that health professionals can better prepare for their patient's safety and provide rapid responses to cardiac complications in the aftermath of an MTP.



Dr. Abimbola Faloye



Sara Auger

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Team Members: Dr. Randi Smith, MD, MPH

I grew up in Tifton, Georgia where I lived with my mom and my sister until I graduated high school. I attended college at Emory University, where I earned a degree in Psychology. Currently, I am a rising M2 at Mercer University in Macon. While at Emory, I was able to serve the Atlanta community through my work as a tutor to middle school students and as an intern at the James

Weldon Johnson Institute for the Study of Race and Difference. Though I entered college knowing I wanted to pursue medicine, it was during those four years that I realized how passionate I am about both the psychological and medical needs of patients, and how I can work as a physician to ensure that those needs are met despite different disparities people face. I intend to pursue a career in neurosurgery; I especially want to focus on helping patients recover functionality and autonomy in the face of disease and injury. Outside of my professional life, I love to read, work out, and make bracelets. Most of my free time is spent pursuing those hobbies, spending time with my friends, and playing with my cat, Daisy (who has attempted to join many of my Zoom calls during the STaR program).

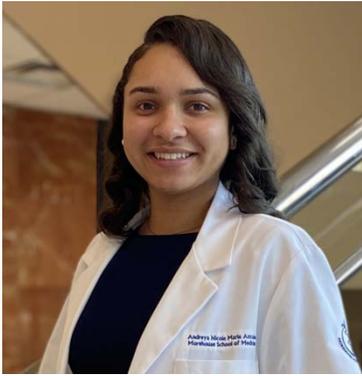
I would like to thank Dr. Smith for being a mentor who goes above and beyond, not just for myself and her other mentees, but for all of us in the STaR program. Dr. Smith approaches every meeting with enthusiasm and an eagerness to learn that is truly contagious. I couldn't have asked for a better mentor to make me feel comfortable and confident and bond with me over squeezable applesauce! I would also like to thank the rest of my wonderful research team for their feedback and patience with my endless emails, and to Dr. Schenker and those who oversee and organize the program.

Diagnosis, Management, and Outcomes of Cardiac Injury

Currently, there is a gap in the trauma literature regarding long-term outcomes of surgery. Our project aims to close this gap by examining the functional outcome of patients months to years after surgery for cardiac injury. Our patient sample pool includes those who have undergone a pericardial window, median sternotomy, or thoracotomy procedure. We also hope to compare the long term outcomes of positive (cardiac injury present) and negative (cardiac injury not present) procedures. We are administering several surveys via phone call to assess these outcomes: a demographics and complications survey, Pain Catastrophizing Scale, PROMIS-SF for Global Health, PCL-5 for PTSD, and the PHQ assessing depression.



Dr. Randi Smith



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Team Members: Dr. Caroline Butler, MD

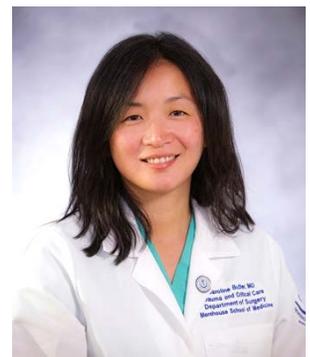
I was born and raised in Maryland where I attended Joppatowne Highschool. After graduating in 2015, I continued my education at Frostburg State University where I received a Bachelor of Science in Health Sciences and a minor in Chemistry. I was then blessed with the opportunity to travel as a CNA to Orlando, FL and eventually return to Frostburg, Maryland to work at an assisted living facility. Prior to matriculating at Morehouse School of Medicine, I was honored to become a Health Professions Scholarship Program (HPSP) recipient and to begin serving our country as an Officer in the US Navy.

While attending Morehouse School of Medicine, I have been able to provide mentorship to undergraduate students through the Young Physicians Initiative Virtual Mentorship Circle (YPI VMC) which has allowed me to share my knowledge in hopes to increase the amount of minority doctors in medicine. I have also been able to volunteer as a vaccinator at various vaccination clinics. In my free time I like to work out, volunteer, collect shoes, fish, and go hiking.

As a rising MD2 at Morehouse School of Medicine, I currently plan to pursue surgery; however, I am undecided about the subspecialty I want to pursue. I would like to thank Dr. Caroline Butler for being an encouraging and motivating mentor. She continues to inspire me to pursue a career in surgery, despite what others around me may think. I would like to give a huge thanks to Dr. Randi Smith, Dr. Richard Sola, Dr. Roberto Hernandez-Irizarry, Dr. Jonathan Nguyen, and Dr. Mara Schenker, as the program directors, who made this all possible.

The Reversal of Novel Oral Anticoagulants (NOACs) in Patients with Traumatic Brain Injuries (TBIs)

Novel Oral Anticoagulants (NOACs) are direct thrombin/direct Xa inhibitors which have become the favorable anticoagulant to prescribe to patients. Prior to the increase in usage of NOACs, Vitamin K Antagonists (VKAs) were used; however, due to the frequent need for monitoring, they have become more of a nuisance. Patients on VKAs who present with an intracranial hemorrhage, the standard protocol for reversal includes Fresh Frozen Platelets (FFP), Prothrombin Complex Concentrate (PCC), Idaricuzimab, or Andaxanet. However, for NOACs there is no standardized protocol to use for reversal. The purpose of our study is to conduct a retrospective chart review to distinguish the trends in data of patients on NOACs who received reversal products versus patients who did not.



Dr. Caroline Butler



Claire Tibbetts

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Team Members: Dr. Amy Zeidan, MD, Dr. Randi Smith, MD, MPH, George Beshara

I grew up in Rome, Georgia. In 2019, I graduated with a Bachelor's degree in Biology from Berry College. While at Berry College I played on the Women's basketball team for two years before deciding to dedicate my time to pursuing my interest in medicine. Throughout my last two years of college, I worked as a scribe in the Emergency Department of a local hospital where I was able to identify my purpose and goal to become a physician. On the rare occasion when I am not studying or reading, I enjoy being outside and playing spike ball at the beach, kayaking, working out, and playing in a volleyball league with some classmates. Additionally, I thoroughly enjoy watching sports and Jeopardy. A unique fact about me is that I am an identical twin. Through my exposure to the Emergency Department as a scribe, I was quickly drawn to the fast-paced environment and high energy setting. Thus, I have a desire to pursue Emergency Medicine but am also considering other specialties such as Critical Care. Throughout my first year of medical school, I have volunteered weekly at a local women's clinic cares for women who may otherwise may not be able to access medical treatment. This experience opened my eyes to the disparities that exist in healthcare and has motivated me to care and advocate for these individuals in my future practice. Though still somewhat undecided on which specialty I would like to pursue, I am committed to using my medical skills and knowledge to extend care to underserved individuals and communities.

Inclusion of Limited English Proficient Populations in Trauma Research

Our project titled, Inclusion of Limited English Proficient Populations in Trauma Research, aims to determine if populations with limited English proficiency (LEP) are included in trauma literature. Historically, we know that individuals with LEP often receive lower quality care whether it be longer wait times, less or lesser quality follow up care, or even impaired communication with physicians and hospital staff

during the medical encounter. Evidence demonstrates that LEP populations are often excluded from research studies due to language barriers and IRB related requirements, indicating that current research only applies to English speaking populations. We will be reviewing current trauma literature to evaluate if non-English speakers were included or excluded from the study and if outcomes were evaluated by language. The review of current literature will address four main types of trauma: motor vehicle accidents/ collisions, burns, occupational injuries and falls in each of which we will analyze if language was and outcomes of LEP populations were addressed within the study.



Dr. Amy Zeidan



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Team Members: Dr. Randi Smith, MD, MPH, Dr. Amy Zeidan, MD, Claire Tibbetts

I was born in Canada. Both of my Egyptian parents moved from Egypt to Canada. They were both engineers. When I was only two years old, we moved to northwest Indiana (about an hour away from Chicago). I grew in Northwest Indiana and attended Indiana University for undergrad. I majored in Biology and minored in Chemistry. I then moved to Atlanta, Georgia for medical school. One major hobby I love is playing and composing music. I play several instruments including guitar, piano, drums, and flute. I post a lot of Coptic (Egyptian) Christian music on my SoundCloud (search George Beshara on SC). Another hobby that I have is acting and film making. I'm actually starring in a movie that my church is working on, which God willing will be premiered and released in August 2021 (for more info follow me on Instagram @georgebeshara). These are all just hobbies that I love to do on the side, but my main passion is medicine, being involved in the healing/prevention process of patients.

Originally going into medicine, I wanted to be an orthopedic surgeon. However, that changed as I started to shadow surgeons. The field seemed to lack work-life balance which is a huge priority of mine. I currently am interested in Emergency Medicine due to the broad knowledge this field appreciates for each organ system. They know a little about everything instead of a lot about one thing which I like. I would be able to stabilize any patient coming into the ER which to me feels like a superpower. I know this may or may not change once I start doing rotations. However, that is the plan at the moment.

Characterizing Injury Patterns in Hospitalized Patients with Limited English Proficiency

Limited English Proficiency is very common in the United States. This population is often times not included in research or not intentionally included. This may be due to time, money, and logistics. Sometimes the patients themselves opt out of studies due to communication barriers. Thus, we have a gap of understanding the disease prevalence and outcomes of this population relating to trauma. Our objective was to explore traumatic injuries prevalence and outcomes among LEP population presented in Grady hospital. We did this by collecting interpreter data from iPads in the Emergency Department. We would then send the MRNs to the trauma registry and receive variables from trauma registry including types of injuries and outcomes. This data is extremely useful as it can help us implement better injury prevention strategies for this population.



Dr. Randi Smith



Hannah Hardwell
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Team Members: Dr. Deepika Koganti, MD

I was raised in Rome, GA, where I graduated from Unity Christian School in 2016 and then Berry College in 2020. At Berry, I received a Bachelor of Science in Biochemistry with a minor in Public Relations. During college, I participated in electrochemistry bench research and worked as the Editor-in-Chief of a student lifestyle magazine. At MUSM, I am the vice president of the Emergency Medicine Interest Group and treasurer of the Macon campus class of 2024's student council. I am also involved with a long-term volunteer project that aims to provide free health care screenings for pet owners while their animals are being spayed and neutered.

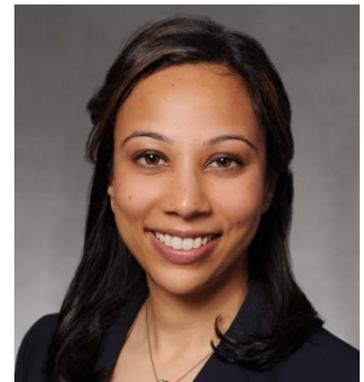
During my senior year of college, I was afforded the opportunity to take pottery classes, which solidified my goal to pursue a medical specialty that allowed me to do procedures. I love working with my hands and would like to pursue a surgical specialty. Currently, I am most interested in trauma surgery and orthopedic surgery.

Outside of school, I like to attend exercise classes, hang out with friends and family, and bake whatever pie or cake recipe most recently popped up on my TikTok feed. This summer I was able to brush back up on my pottery skills by taking a class in the Macon community, as well as travel to Glacier National Park in Montana and Washington D.C.

I would like to thank Dr. Koganti for her guidance and mentorship through this summer. Her time and input into my growth as a researcher has been invaluable to me. I would also like to thank Dr. Smith and Dr. Schenker for overseeing and organizing the program and finding the best speakers for us each week.

Title: Evaluation of a Pelvic Fracture Management Guideline

A multi-institutional study by the American Association for the Surgery of Trauma in 2015 found a 32% mortality rate for patients with pelvic fractures in shock. Quick decision making is necessary to avoid a fatal patient outcome. A multi-disciplinary clinical pathway has been shown to improve patient survival, and an approved Grady Pelvic Fracture Guideline was published on September 20, 2019. The purpose of our project is to determine knowledge of and adherence to the Grady Pelvic Fracture Guideline by evaluating patient outcomes pre-guideline and post-guideline. We will look at the following specific outcomes: time to OR/IR, blood products transfused, angio-embolization, use of REBOA, missed injuries, length of stay, and mortality.



Dr. Deepika Koganti



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Team Members: Dr. Mara Schenker, MD

I was born and raised in Atlanta, GA and completed my Bachelor's degree in biology while minoring in German studies at Elon University in North Carolina. Following my undergraduate studies, I moved to Würzburg, Germany on a Fulbright scholarship, where I taught English and Physics to students grades 5 through 12. While abroad, I suffered a fractured elbow. Not only did I have the privilege of undergoing an X-ray in the lab where X-ray was first discovered, I also gained first-hand experience in a different healthcare system, which opened my eyes to and sparked my passion for access to care issues faced back home. When I returned to the states, I began working as a 911 Emergency Medical Technician (EMT) in DeKalb County and was later deployed with FEMA to support New York City during the height of the COVID-19 pandemic. Outside of medicine I spend my time running wooded trails, playing recreational sports with my classmates, backpacking with friends and family, traveling, and attempting to teach my two cats, Watson and Crick, how to be dogs (Watson can fetch!).

From my work as an EMT, I realized I enjoy the adrenaline rush of caring for critically ill patients, where sound judgement, rapid assessment, and hands-on skills are paramount. As an athlete, I am interested in exploring a career in sports medicine and orthopedics. My volunteer work in homeless shelters reflects my interest in issues of social justice and access to care. My research project has provided an opportunity reflect upon my varied interests. I envision a career in academic medicine as a board-certified specialist where teaching and research will complement my clinical practice.

Food Insecurity in the Orthopedic Trauma Population

Food insecurity, which is the state of lacking sufficient access to affordable, nutritious food, has been well-associated with negative health outcomes in the literature. Using trauma registry data from a survey of patients hospitalized for orthopedic trauma, we investigated (1) the prevalence of food insecurity in an orthopedic trauma population, (2) the relationship of food insecurity with comorbid conditions, and (3) the relationship of food insecurity with complications and hospital utilization. Identifying these specific associations addresses the need for better understanding food insecurity interventions. Research on this topic provides significant information about the relationship between orthopedic trauma and social determinants of health (SDOH). These findings will assist physicians in developing methods to improve health outcomes for trauma patients.



Dr. Mara Schenker



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Team Members: Dr. Marshall Fleurant, MD

I was born at NYU Medical Center, on August 19th, 1997, and moved to Macon, Ga around 2 weeks old, where I spent the remainder of my childhood. I am the middle child with an older sister in healthcare working as a CRNA and a younger brother who is studying biology at GSU. I attended Mount de Sales High School in Macon, Ga, and graduated in 2015. In 2019, I graduated from Georgia State University with a degree in Biology. My hobbies include watching TV (mainly Anime & Sports), going out to eat (mainly Egg Harbor Café), working out, playing instruments (guitar, piano, & currently learning violin), and playing basketball. During my college summers, I spent my time shadowing physicians from different specialties which include Orthopedics, Oral and Maxillofacial Surgery, Pediatric Thoracic Surgery, Pediatric Plastic Surgery, Pediatric Emergency Medicine, and Oncology. This guidance I received from these physicians along with my love for biology helped guide me to a career in medicine.

My current fields of interest include Pediatric Emergency Medicine, Pediatric Plastic Surgery, General Pediatrics, and at the top is Pediatric Orthopedics. My primary goal is to become a Pediatric Orthopedic surgeon and help my community by practicing in the Warner Robins, Ga – Perry, Ga area. I would like to thank Dr. Schenker and Dr. Smith for organizing this research program, allowing us to get an in-depth look into medical research. I also want to thank Dr. Fleurant for allowing me to work with him on his project involving individuals suffering from adverse childhood experiences and the ways we can help them through trauma-informed care. This project has taught me lessons that I will hold on to and apply to my future practice.

Adverse Childhood Experiences and their Impact on Physical and Psychological Disease in Late Adulthood

Our project is a systematic review of trauma-informed care interventions and services affecting underserved adult populations within the United States. We specifically reviewed all randomized trials, controlled clinical trials, prospective and retrospective cohorts, case-control and cross-sectional studies that evaluate the impact of trauma-informed care services. We have excluded studies on international crises, refugee populations, and have defined trauma-informed interventions to be those that aim to reduce the negative consequences of trauma both the biological and psychological consequences, and come from a value base of respect, resiliency, compassion, cultural humility, and empowerment.



Dr. Marshall Fleurant



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Team Members: Dr. Randi Smith, MD, MPH

I was born and raised in St. Andrews, Jamaica. I graduated from Willowdene High School in 2009. I then moved to the states to pursue a tertiary education. I graduated from University of North Florida (UNF) in 2016 where I received a Bachelor of Science in Molecular and Cell Biology with a minor in Psychology. I then went on to pursue of Master of Science in Medical Science at Morehouse School of Medicine

which I received in 2020. While in my undergraduate studies I discovered my passion for helping people and volunteered in the varying capacities on campus at UNF and for UF Health Shands Jacksonville. At UF Health I discovered my passion for surgery as I was able to shadow a plethora of physicians. This summer I am a rising 2nd year medical student at Morehouse School of Medicine. Outside of medicine I enjoy weight lifting, cycling, and running. I am also engaged, and we have a Boston Terrier fur baby named Kobe Bryan. Yes, like the G.O.A.T.

I would like to thank Dr. Randi Smith and Dr. Mara Schenker for creating the STaR program and having such a dynamic vision. I want to thank Dr. Randi Smith especially for being the greatest mentor I could have ever asked for and always being available no matter the circumstances. Also, I want to thank her for guiding me through the fine details of this project and always having the answers to my questions. I want to thank the Grady and Emory team for such a wonderful summer experience.

Long-term functional outcome in patients that have undergone fasciotomy of the lower extremities

Fasciotomy is a procedure that is namesake. It is the removal of the fascia around anywhere in the body but for the purpose of this study we are looking specifically at fasciotomies of the lower extremities, particularly in the legs. Fasciotomy is a procedure done to relieve the pressure of a compartment. This procedure is highly effective in the treatment and prevention of compartment syndrome. Compartment syndrome can occur spontaneously but is predominantly associated with vascular injury within a specific compartment. Vascular injury can be caused by GSW, MVA or other forms of blunt or penetrating trauma. The goal of this study is to examine the quality of life after receiving a fasciotomy in the lower extremity.



Dr. Randi Smith



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Team Members: Dr. Sarah Lazarus DO, Aziza Mustefa

I was born and raised in Dunwoody Georgia all my life and attended Dunwoody High School and graduated with the class of 2019. I now attend UGA as a Biology major with a minor in Cellular Biology. I have always wanted to be in the medical field from a young age. As I enter my third year of college, I am so excited to see where my pre-medical journey takes me, and I am ready for all the challenges that will come my way. When I am not studying or doing schoolwork some of my favorite pastimes are to listen to music, hangout with my friends and take long walks. I also enjoy anything Disney and am always down for a movie night.

My current fields of interest include Pediatric Emergency Medicine, Orthopedics, Gynecology and Emergency Medicine. While I am still an undergraduate student and my plans are bound to change, each one of these fields of medicine has sparked various interests in me. Currently, I hope to one day become a Pediatric Emergency Medicine Physician in the greater Atlanta Area. After shadowing a Pediatric Emergency Physician this past summer, I fell in love with the environment of the hospital and the dedication of the doctors to the children in the ER. I would like to thank Dr. Lazarus for allowing me to assist in this research program and further my passion for medicine, specifically withing children.

Dissemination of Safe Sleep Information at Well Visits at Hughes Spalding Clinic

SUID (Sudden Unexpected Infant Death) is defined as the death of a child less than one year of age and having no obvious cause. SUID has become one of the leading causes of unintentional infant death in the United States. There are three main types of SUID, 1. Sudden Infant Death Syndrome (SIDS) 2. Accidental Suffocation and Strangulation in bed and 3. Other deaths with an unknown cause. These infant deaths can be avoided with proper education on safe sleep habits in infants. This project aims to educate those who do not know about the ABCs for safe sleep and reducing SUID (**A**lone on their **B**ack and in **C**rib free of extra items). When infants are kept on a flat surface with no other items in the crib, they will safely sleep and the risk of SUID is lowered greatly. The goal of this study is to evaluate if the dissemination of a Kidshealth Safe Sleep handout will limit the amount of SUID cases.



Dr. Sarah Lazarus DO



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Team Members: Dr. Richard Sola, MD

My name is Babayode Bakare. I am a first-generation Nigerian American who was born in Chicago, Il. In 2017, I graduated with my Bachelors of Science in Biology from the University of Missouri Kansas City. In 2020, I graduated with my Masters in Medical Sciences from Morehouse School of Medicine. Currently, I attend Morehouse School of Medicine and will be starting my second year of medical school in the Fall of 2021. This year I have spent my time diving into my hobbies such as video games, making music, and working out. I own a PlayStation 4 and have been playing games such as Nioh 2, Smite, and Horizon Zero Dawn. Recently, I also have started working on a musical project with some friends that I hope to release in the future.

My career goals consist of being a competent physician, participating in mentorship opportunities, and to help improve patient’s understanding of medical terms. Currently, I am considering Emergency Medicine as my medical specialty because of previous experience. I worked as a medical scribe for a year in an emergency department and learned a lot about the field from it, however I am still open to other medical specialties. I have a passion for mentorship because I have been given the opportunities I currently have because my mentors have steered me in the appropriate direction from my premedical years, which has allowed me to find success. I understand that not all premedical or medical students have access to mentors, and I would like to give back through the establishment or participation in pipeline programs. I would like to improve patient’s understanding of medical terms by establishing or participating in a platform where medical terms and concepts are simplified for them so communication is more efficient.

Management of Adult Traumatic Blunt Abdominal Solid Organ Injury: A Retrospective Review

This project is a retrospective study that analyzes blunt abdominal solid organ injury adult patients at Grady Memorial Hospital. The importance of this project is to determine whether the current measures established at Grady are efficient in handling adult patients by comparing the outcomes and treatment with pediatric patients. Literature and current guidelines clearly state that adult patients lack in clear recommendations for their treatment compared to pediatric patients. Through this project the goal is to analyze and review the Blunt abdominal solid organ injury management practice and outline potential risk factors. This analysis will help lead towards more detailed recommendations for the adult patient population.



Dr. Richard Sola



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Team Members: Dr. Richard Sola, MD

I was born in 2001 and raised in Montreal, Canada. I obtained a DEC (Diploma of College Studies) from Marianopolis College. Upon graduation, I directly entered a fast-tracked 5 year medical program. I'm currently a rising first year medical student at McGill University.

I've always had an active lifestyle. I spent my childhood to late adolescence training as a competitive gymnast. My interest in orthopedics stems from my first ACL tear, back at the age of ten. From there on, my fascination with the field has only further solidified. In the coming years, I hope to get more involved in the research side of ortho and engage in academic projects to further build on my career as a future physician.

Outside of medicine, I enjoy travelling, running, hiking, or anything where I can learn and discover what the world has to offer.

I would like to thank Dr. Sola for providing me with outstanding mentorship in conducting a clinical research project. Despite his extremely busy schedule, Dr. Sola went above and beyond--patiently supporting his mentees, and providing us with the best experience possible. I would also like to thank Dr. Schenker, Dr. Smith, and every other faculty member who made the STaR remote experience better than I could have ever anticipated.

Chest CT's in Adolescent Blunt Trauma Patients: Are They Being Overutilized?

After stabilization of pediatrics blunt trauma patients in adult trauma centers, routine workup includes the use of “whole body” CT scans to identify further injuries. However, studies have demonstrated that such scans expose adolescents to significant levels of radiation. The adolescent patient population already has a higher cancer risk when exposed to radiation and undergoing whole body CT scans does not necessarily reduce mortality after trauma.



Dr. Richard Sola

There are currently no established management guidelines for minimizing radiation in patients under 18 years of age at Grady Memorial Hospital. This study will identify the rate of chest CT scans performed for adolescent trauma patients at Grady Memorial and the incidence of traumatic injuries identified by CT scans in order to determine whether it is possible to reduce chest CT usage, thereby establishing radiation reduction protocols.



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Team Members: Dr. Keneeshia Williams, MD

I am a first generation Haitian American, born and raised in Tampa, FL. I went to George M Steinbrenner High School where I played soccer and ran track. I spent most of my time growing up balancing sports and school. This has shaped a large part of who I am today and my career interests. I went on to play college soccer and graduate with my BA in Psychology at Emory University in 2019. In 2020 I received my Master's in Science at Drexel University and continued on to medical school at Drexel University College of Medicine. I spend most of my free time traveling, exercising, and shadowing as much as possible!

I have always wanted to become a physician and during my first year I gained interest in several fields including Orthopedics, Sports Medicine, and OBGYN. Many of my interests stem from my background as a former athlete and long-time passion for women's health. My goal is to narrow down my field of interest throughout medical school training and work in an area where I can service a diverse population. I especially want to focus my career as a physician on addressing health care disparities, such as health outcomes in orthopedic surgery, physical rehabilitation in low-income populations, and maternal mortality rates across the US.

Timing and Development of DVT in Trauma Patients with Pelvic Fractures

Deep Vein Thrombosis (DVT) occurs in up to 60% of patients with pelvic fractures. Undiagnosed, DVT can lead to pulmonary embolism and post thrombotic syndrome. Standard care for DVT prophylaxis involves anticoagulants and use of sequential compression devices. Even with these prophylactic measures, rates of DVT and PE continue to be alarmingly high in patients with pelvic fractures. Our project's focus is to retrospectively analyze the variables and risk factors that may contribute to the timing and development of DVT in patients with blunt trauma pelvic fractures. We will be investigating patient variables such as age, body mass index, length of stay in the Emergency Department, presence and timing of tranexamic acid administration, and other relevant variables. By the end of this project, we hope to identify clinical practices and risk factors that correlate to the development of DVT in patients with pelvic fractures and reduce this occurrence in clinical settings.



Dr. Keneeshia Williams



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Team Members: Jonathan Rupp, PhD; Nathan Call, PhD, BCBA-D; Kiesha Fraser, MD; Sarah Lazarus, DO; Emilie Morris, BS; Harold Simon, MD, MBA

I was born in Columbus, Ohio, but I was raised in Cumming, Georgia until I graduated from Denmark High School in 2020. I am an incoming 2nd year undergraduate student in Augusta University’s BS/MD program with a major in Cell & Molecular Biology. Outside of school, I love to dance in my free time and I am currently a member of my university’s dance team, AU Sharkara. I also actively volunteer in the community, as part of Doctors without Borders and at local non-profits.

Ever since I was a young girl, my heart was set on going into the medical field because I wanted to make an impact on the community and the lives of the people around me. As a current intern at a pediatrics office and at CHOA, I have been exposed to the field tremendously and it has allowed me to explore one of the many fields of medicine I am interested in. I am so grateful to have had the opportunity to participate in the STAR research program because I was able to be introduced to research and fuel my passion for the pediatrics field as I learned the various aspects of pediatric trauma and injury prevention over the summer..

I would like to thank Dr. Sofia Chaudhary for providing me with amazing mentorship by guiding me through this project and providing insight on my ideas. I also would like to thank Dr. Kiesha Fraser Doh for introducing me to this exceptional program, Dr. Randi Smith for setting up our weekly meetings, and all the other faculty members and physicians that have made this experience possible.

Reducing Access to Firearms for Youth At-Risk for Suicide

Firearms are the second leading cause of pediatric death and suicide accounts for more than one-third of these deaths in the US. Limiting access to firearms in the home can be done through safe storage practices by storing them unloaded and locked and also locking the ammunition separately, which is shown to reduce the risk of youth suicide.

Our study aims to evaluate the feasibility of social workers by providing lethal means counseling and free firearm lock boxes to caregivers of youth that are at-risk for suicide in the pediatric ED. During our ED intervention, adult caregivers will be provided with brief firearm safety counseling, surveyed about access to firearms, offered a free lock box, and given safety education handouts. We will also follow up with surveys after 2 weeks to assess device use, additional safe storage practice changes, sharing of firearm safety with others, and caregiver acceptability of intervention.



Dr. Sofia Chaudhary



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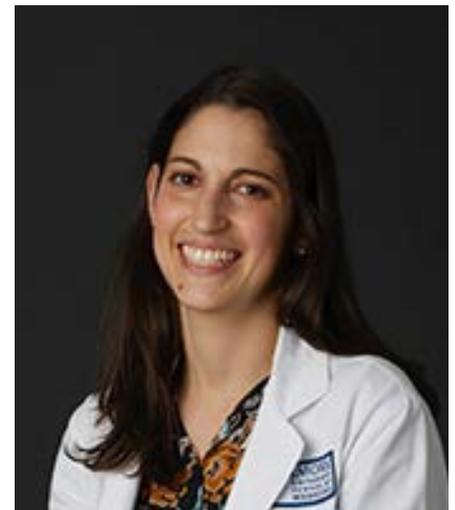
Team Members: Dr. Erica Heiman, MD, MSc

I was born on January 12, 2000, in Fort Lauderdale, Florida, and moved to Georgia when I was five years old. My family is from Jamaica and relocated to the U.S to establish a better life. My cultural heritage plays a significant role in my life as it is a part of my identity. I am currently a rising senior at Georgia State University where I major in psychology as a pre-medical student. After obtaining my B.S in psychology, I plan to attend medical school with an interest in pursuing family medicine. I also currently work as a medical assistant at a COVID-19 drive-thru testing center, and in my free time, I like volunteering at various food pantries that distribute food to underserved communities. Outside of my professional life, I enjoy babysitting toddlers, trying new foods, and spending time at my grandmother's house.

I am beyond grateful for the opportunity to participate as a research assistant in the STAR Program. Thank you to Dr. Mara Schenker, Dr. Randi Smith, Dr. Richard Sola, and Dr. Roberto Hernandez-Irizarry for being insightful program directors. Thank you to Dr. Erica Heiman for being an admirable mentor that gave great guidance throughout the entire project. Lastly, I would like to thank my fellow peers for the support and knowledge I gained from you all.

Transient Elastography Measurements of Liver Health in Hepatitis C Infected Patients Who Do and Do Not Use Alcohol

Transient elastography, trade name Fibroscan, is a non-invasive technique used to assess liver fibrosis by measuring liver stiffness. Hepatitis C (HCV) is a virus that causes inflammation of the liver. There is a wide variation in Fibroscan measurements of chronic hepatitis C patients, and little is known about the additive damage to the liver in HCV patients who do use alcohol compared to those who do not. Through evaluation of data from a cohort of patients treated for HCV at the Grady Liver Clinic at Grady Hospital, we are able to evaluate whether alcohol significantly affects Fibroscan measurements. We hope to use this data in the future to inform programs that address alcohol use disorder in HCV patients, with the goal of improving their liver health.



Dr. Erica Heiman



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Team Members: Dr. April Grant, MD

I was born and raised in Cebu City, Philippines, and I emigrated to the US with my grandparents when I was 11. I graduated from Middle Georgia State University with a biology degree in 2018. During my undergraduate years, I spent a lot of time in research labs working on several different projects from carbon nanoribbons to transposons. I developed a passion for research during this time, and I even considered working as a researcher at the time but pursuing a career in medicine had a stronger pull on me. After graduation, I took a gap year and worked as a medical assistant for a physician who traveled to different nursing homes in GA.

When my head isn't buried in medical texts, I like to draw/paint, read, and play video games. Currently, I am trying to relearn how to play the piano.

I have not yet decided which specialty of medicine I want to pursue, but I have a great interest in surgery. I find the ability to work with your hands to fix a problem to be really attractive, and that is what drew me into medicine in the first place.

Use of Coagulation Profiles as a Predictor of TBI Progression

Traumatic Brain Injury (TBI) is one of the major causes of death and disability, and depending on the severity, it could lead to short- or long-term problems. The primary goal of this study is to investigate the trauma-induced coagulopathy (TIC) associated with TBI. TIC has three stages: the hypocoagulable state that involves the activation of multiple hemostatic pathways often times coupled with increased fibrinolysis; the resuscitation stage involving therapy-related factors; and the post-resuscitation stage which triggers an acute phase response that leads to a prothrombotic state, thus increasing the risk for venous thromboembolism. Two patient populations will be investigated in this study. Patients with non-progression of TBI versus patients with progression of TBI. The patients' coagulation profiles will be compared along with other factors such as, blood products and medications used, length of stay, ventilator days, and mortality. Through this study, we hope to determine the risk factors for progression of TBI, focusing on coagulation as a key determining factor.



Dr. April Grant



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Team Members: Dr. Sandra Hobson, MD

I was born and raised in Rome, Georgia and grew up with a love for sports and the outdoors that I still have today. I went to college at the University of Georgia and majored in Biological Science. I loved my time at UGA as I have been a dawg fan since I took my first breath. I was raised in very Christian home, and my faith is the most important aspect of my life. In fact, my faith is what drove me to the field of

medicine. I see medicine as an opportunity to love people and make a lasting impact in their lives. My time at the Medical College of Georgia has been great so far. The complexity of the human body and the capability of the human mind to treat disease amazes me every day as I learn more and more. I have thoroughly enjoyed learning with my classmates. I know they will all be lifelong friends of mine. I am particularly thankful for the opportunity I have had to be involved in Medical Campus Outreach. MCO is an organization comprised of local Christian doctors and their families who open up their homes every week to invest in the lives of medical students. It has been a privilege to get to know some of these incredible families and have their support and encouragement as I go through medical school.

I have yet to find any field of medicine that I do not find interesting, which leaves me with quite the predicament. In short, all I know is that I want to be a doctor. Beyond that, I am still in the process of discovering the exact niche within the field of medicine for me.

Venous thrombo-embolic events in spine trauma patients: are there modifiable risk factors?

There is an age-old question pertaining to spine injuries: how do you balance prophylactic anticoagulant therapies without increasing the risk of epidural hematoma? Most patients admitted to a hospital are prescribed some form of chemoprophylaxis to decrease risk of venous thromboembolism (VTE).

Generally speaking, VTE chemoprophylaxis is standard of care for hospitalized patients. However, patients with spinal injuries, especially those undergoing spine surgery, are at an increased risk of developing an epidural hematoma, which is a bleed that causes blood to accumulate in the potential space above the dura mater. Epidural hematomas typically develop in or around the injury or area of surgery and may cause an increase in pressure on the spinal cord or neural elements. Symptomatic epidural hematomas may cause partial or even complete paralysis. Therefore, physicians are left with a dilemma when faced with the decision whether to start VTE chemoprophylaxis in patients with spine injuries. Should they start VTE chemoprophylaxis to reduce the risk of deep vein thrombosis and pulmonary embolism, or should they withhold VTE chemoprophylaxis in order to reduce the risk of the developing an epidural hematoma. The purpose of this study is to collect data outlining the development of VTE, the use of anticoagulant prophylactic therapies, and the injury or surgery that led to the hospitalization in 245 patients admitted to Grady Memorial Hospital from 2014-2019 who subsequently underwent a VTE. The study aims to provide data that will contribute to the development of a much-needed consensus regarding protocols for anticoagulant chemoprophylaxis use in patients hospitalized for spine injuries and surgeries.



Dr. Sandra Hobson



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Team Members: Dr. Thomas Moore, MD

I am a first generation Chinese-American who was born and raised in Atlanta, Georgia. In 2014, I graduated from Wheeler High School as part of the STEM program. I spent the next four years attending the University of Georgia where I completed my Bachelor of Science in Genetics.

Presenting my research thesis at UGA's annual Science Symposium afforded me exposure to research and solidified my interest in working at the forefront of science. I worked as a scribe and witnessed severe medical disparities sparking my interest in becoming a physician who works towards mending the health gap in our country.

Outside of school, I like to play with my kitten, learn the ukulele, and spend time with my friends and family. I'd also like to conquer a half marathon one day!

I am currently a rising second year medical student at Morehouse School of Medicine with an interest in the field of pediatric orthopedics. My interest in the field first began during my little sister's pre-surgical consultation 8 years ago. I was fascinated by the technical aspects of the procedure. When scribing in the ER, I found that my excitement over fractures and dislocated joints never faded.

Effect of Shoulder Pseudosubluxations on Healing Time in Acute Humeral Shaft Fractures

A shoulder pseudosubluxation can occur after shoulder trauma or surgery and is when the humeral head sits at the level of the inferior lip of the glenoid. It's thought to be caused by atony of the deltoid and rotator cuff muscles. There have not been many studies about its effect on healing time of humeral fractures. The aim of our study is to observe if shoulder pseudosubluxations are an indicator of a humeral fracture that requires more healing time, and if so, when is the ear



Thomas Moore, MD