

7th Annual Student Research Symposium

November 21, 2025

SYMPOSIUM SCHEDULE

Lunch and Opening Remarks 12:30 PM – 1:00 PM
Studio

Phyllis MacGilvray, MD, FAAFP, Dip ABLM
Dean
University of South Carolina School of Medicine Greenville

Alain H. Litwin, MD
Chief Scientific Officer
Prisma Health
Professor of Medicine
University of South Carolina School of Medicine Greenville

Sudha Garimella, MD
Interim Associate Dean for Research
Associate Professor
University of South Carolina School of Medicine Greenville
Medical Director, Division of Pediatric Nephrology and Hypertension
Prisma Health

Poster Session 1 1:00 PM – 2:00 PM
Lounge

Oral Presentations 2:15 PM – 3:45 PM
Studio

Afternoon Break 3:45 PM – 4:00 PM

Poster Session 2 4:00 PM – 5:00 PM
Lounge

Awards and Closing Ceremony 5:00 PM – 5:45 PM
Studio

Adjournment

ABSTRACT



<https://qrco.de/bgSlSn>

ZEN

924 South Main Street
Greenville, SC 29601



**School of Medicine
Greenville**

UNIVERSITY OF SOUTH CAROLINA

POSTER SESSION 1

1:00 PM - 2:00 PM
Lounge

Andrew Abdelnour..... Abstract 20

Comparative Effectiveness of Two- Versus Four-Week Preoperative Liquid Diets on Postoperative Weight Loss in Bariatric Surgery Patients: A Retrospective Cohort Study

Lanie Acosta, MS..... Abstract 54

Incidence and Risk Factors Linked to Transfusion-Associated Circulatory Overload (TACO) At Greenville Memorial Hospital

Ryan Adams, BS Abstract 31

Effectiveness of Prehospital Blood Administration in Pediatric Populations: A Scoping Review Protocol

Callum Allison, BS..... Abstract 12

Association of ASES Score with Surgical Arm Steering After Shoulder Surgery: A Driving Simulation Study

Sarah Aloï, BS Abstract 76

Predictors of Intravenous Tissue Plasminogen Activator (IV t-PA) Administration Among Ischemic Stroke Patients with Elevated Triglycerides (>200mg/dl)

David Arnold..... Abstract 100

Unmasking Mutation Patterns: A Path Toward Improving Colon Cancer Care

Justin Barron, BS..... Abstract 5

*Analyzing Human Gene Expression in *Acinetobacter baumannii* Infection with Dual RNA-Sequencing*

Connor Bates, BS..... Abstract 75

PPIs with Chemotherapy: Inducing Multi-Drug Resistance (MDR) with Omeprazole in Esophageal Cancer Cell Lines

Anna E Bazell, BS..... Abstract 71

Perioperative Nutrition in Plastic Surgery: A Systematic Review of Screening Tools and Nutritional Interventions (2010-2025)

Mya Beasley, BS..... Abstract 39

Exploring the Therapeutic Potential of Frequency-Modulated Tumor Treating Fields in Glioblastoma Multiforme In Vitro

Meredith Bhend, BS..... Abstract 16

CA19-9 Levels as Predictors of Progression in Pancreatic Adenocarcinoma

James Bowron, BS..... Abstract 51

Improving liquid biopsy sensitivity by enhancing cfDNA yield through chemical modification

Kassie Carlson, BS Abstract 109

Individual Learning Plans in ACGME Graduate Medical Education: Scoping Review Protocol

Hayden Carrillo, BS Abstract 62

Measuring Medical Student Resilience to Identify Behavioral Insights

Evan Case, BS..... Abstract 111

A Qualitative Analysis of White Coat Oaths and the Hippocratic Oath

Feng Chen, BS Abstract 6

Annual Wellness Visit QI Project at Center of Family Medicine-Oconee

Gabrielle Choe, MBS..... Abstract 101

Use of Study Resources and Performance Outcomes in First-Year Medical School Anatomy

Maddi Clark, BS Abstract 95

The Effect of Baroreflex Activation Therapy (BAT) on Ambulatory Hemodynamic Monitoring Parameters in Patients with Heart Failure

Christian Cormas, BS..... Abstract 4

Adherence to Evidence-Based Guidelines for Acute Myeloid Leukemia: A Retrospective Chart Review for Quality Improvement

Logan Cripe, BS..... Abstract 112

Patterns of Resilience in Medical Students

Austin D'Addario, MS Abstract 1

1-Year Outcomes of Operative Tibial Plateau Fractures With and Without Cruciate Ligament Injuries

Andy Davis..... Abstract 61

Map Kinase Pathway is Downstream of PAK-1 and Crucial for Integrin Adhesion Complex Assembly in Muscle

Sameer Ebrahim, BS..... Abstract 90

Spring Plates as a Marker of Injury Complexity in Posterior Wall Acetabular Fractures: Trends in Conversion to Total Hip Arthroplasty

Grayson Fletcher, BS..... Abstract 69

PAF Enhances Intracellular Calcium Release and Motility in Sea Urchin Spermatozoa

Sonia Garg, BS..... Abstract 38

Evaluation of Tibial Torsion in the Uninvolved Side of Children with Unilateral Clubfoot

David Chandler Gayle Abstract 87

Sex-Specific Outcomes of Lifestyle Interventions in Patients with Coronary Heart Disease: A Systematic Review with Narrative Synthesis

Jolie Guinn, BS..... Abstract 93

Sternal Reconstruction via Talon Plating: Quality of Life Data

Greyson Holler BS Abstract 17

Caught in the Loop: Clinical Patterns and Outcomes of Pediatric Intussusception

Liza Hopper, BS Abstract 13

Baroreflex Activation Therapy (BAT) as an Adjunct for Proactive Heart Failure Management

Sydney Jarecki, MD Candidate..... Abstract 10

Association Between Polypharmacy and Medication Adherence: A Meta Analysis

Conner E Johnson, MEng..... Abstract 53

In-Hospital Outcomes Among Patients Admitted for Myocardial Infarction with Coexisting RSV vs Influenza Infections

Sydney Keane, BS Abstract 29

Disparities in Diagnosis and Treatment of Anal Cancer

Noelle Luzzi, BS Abstract 57

Intrapulmonary Neurofibromas in the Absence of Confirmed Neurofibromatosis: A Diagnostic Challenge with a Proposed Algorithm

Wilson Maddox Abstract 36

Evaluating The Impact of Patient Education on MRI Key Performance Indicators

Brenna Matthews, BS..... Abstract 85

Scoring of Pediatric Respiratory Syncytial virus (RSV) Infection Severity: A Systematic Review

Dru Montgomery, BS..... Abstract 72

Placental Syphilis: A Growing Concern for Neonatal Health

Adeyemi Oduwale, MPH..... Abstract 86

Sex-Specific Effects of Plant-Based Diets in Type 2 Diabetes: Systematic Review Protocol

Bailee Oliver, MPH Abstract 102

Where We Live Matters: Associations Between Food Deserts, Their Residents and Obstetric Complications

Lauren Palmariello Abstract 89

Social Media as Information Flow Between Emergency Departments and the General Public: A Scoping Review

Luis J Sanchez Ferrer, BS Abstract 64

Non-persistence with Denosumab vs. Bisphosphonates: A Meta-analysis of U.S. Cohort Studies

Rae Schiess, BS Abstract 77

Preoperative Block May Lead to Lower Prolonged Opioid Use and Greater Quality of Life in Lower Extremity Amputation Patients

Morgan Snyder Abstract 18

Characterizing Cardiac Amyloidosis in a Regional South Carolina Population: A Retrospective Analysis

Allie Stacks..... Abstract 8

Association between a shortage of normal saline and in-hospital outcomes among individuals with febrile neutropenia

Lexi Stone..... Abstract 106

The Sweet Spot: An Algorithm Approach to Optimize TPN Orders

Karl Swiger, BS Abstract 63

Morbidity and Mortality in Older Adults with Ankle Versus Hip Fractures: A Multi-Institutional Retrospective Study

Tamia Ward, BS Abstract 21

Comparative Sex and Gender Outcomes in Response to Exercise Interventions in Adults with Obesity: A Systematic Review

Nicholas Zullo Abstract 46

Hybrid Academic/Community Cellular Therapy Program and Incidence of CAR-T Adverse Events: A Retrospective Chart Review

POSTER SESSION 2

4:00 PM - 5:00 PM
Lounge

Joel Aguilera Flores, BS..... Abstract 67

Operative Treatment of Ectrodactyly of the Foot: A Multicenter Review of Indications, Techniques and Outcomes

Grace Anderson, BS Abstract 82

Regimen-Specific Impacts of Chemotherapy on Skeletal Muscle Mitochondrial Function in Patients with Breast or Gynecological Cancer

Emanuel J Ayala, MS Abstract 94

Synergistic effects of rolipram loaded P_gP (Rm-P_gP) and minocycline on motor and cognitive function, and secondary injury in a rat moderate controlled cortical impact (CCI) TBI model

Caroline Bailey, MS Abstract 66

Operative Treatment of Ectrodactyly of the Foot: A Multicenter Review of Indications, Techniques and Outcomes

E Palmer Ball, MS Abstract 3

A Review of Trichomonas vaginalis Immunomodulation by Co-Infection Status

Vanessa Bartholomew, BS Abstract 74

Post-Diverticulitis Colonoscopy: Referral Patterns, Completion Rates, and Cancer Detection in a Cohort of 762 Patients

Mya Beasley, BS..... Abstract 65

Obstacles and Possible Solutions Regarding Use of Tumor Treating Fields on Glioblastoma Multiforme in vitro

John Benedetto, BS Abstract 40

Factors associated with the use of intravenous opioids among patients treated with ketorolac for nephrolithiasis in the emergency department

Sally Brown, BS..... Abstract 58

Investigating the bidirectional relationship between lactation and maternal mental health

Tyler Carlson, MD Candidate..... Abstract 11

Association between Polypharmacy and Medication Adherence: A Meta Analysis

Feng Chen, BS Abstract 41

Factors associated with the use of intravenous opioids among patients treated with ketorolac in the emergency department for nephrolithiasis

Olivia Comer, MS Abstract 48

Identification of Mitochondrial Proteins in Blastocoel Fluid from IVF Embryos via Mass Spectrometry

William Corns, BS Abstract 83

Robotic Assisted vs Mechanical TKA in Patients with Smart Knee Implants

Emiliano Costilla, MS-3 Abstract 105

Global Trends in Prehospital Antibiotic Administration, a Systematic Review

Austin D'Addario, MS..... Abstract 25

Comparison of Vein Recanalization Following Deep Vein Thrombosis Treated with Direct Oral Anticoagulants

Sameer Ebrahim, BS Abstract 23

Comparison of Operative versus Non-Operative Treatment for Minimally Displaced Tibial Plateau Fractures Stratified by Schatzker Classification

Grayson Fletcher, BS..... Abstract 56

Interareal changes in white matter connections defined by DTI Tractography characterize motor symptoms in Parkinson's Disease

Kelly Forrester Abstract 59

Investigating the Role of IFI35 in Cell Viability during Viral Infection Conditions

Claire Fortman..... Abstract 73

Platelet-Activating Factor's Effect on Intracellular Calcium Release in Two-Cell Sea Urchin Embryos

Kendall Gassman, BS Abstract 55

Inspiring The Next Generation Through Implementing the Inaugural STEM Goes Red Event at a Medical School

Greyson Holler, BS..... Abstract 99

Two Rare Acinetobacter Isolates in a Single Institution: A. soli and A. seifertii

Nabeeha Khan Abstract 84

Robotic Left Renal Vein Transposition

Spencer Loehr, BS Abstract 22

Comparing Variability in Time-Based vs. Interpersonal Metrics to Guide MRI Patient Satisfaction Interventions

Lawson Logue, BS..... Abstract 68

Outcomes of CT-Guided Pudendal Nerve Cryoablation for Pudendal Neuralgia

Kelsi Marts, BS Abstract 35

Evaluating the Impact of MRI Preparation and Educational Materials on Scan Times

Katherine McCann, BS..... Abstract 92

Staff Language Access Education at Blount Memorial Hospital

Ben Meyer, BS Abstract 104

Connections to Contraception in the Emergency Department: A Scoping Review

Charles Meyerson Abstract 79

Provision of Culinary and Nutrition Education Through a Community-Based Cooking Class and Assessment of Participants' Knowledge, Needs, and Attitudes

Elizabeth Moshier, MS..... Abstract 103

From Clicks to Clinics-Optimizing Onboarding Strategies to Connect Primary Care Facilities with Physical Activity Programs

Isabella Nashbar, MD Candidate .. Abstract 50

Impact of Volunteerism on Medical Student Empathy and Burnout

Thien Nguyen Abstract 60

Is There an Appropriate Needle Gauge for Adequate Tissue Procurement in Liver Diagnostics?

Chandini Patel, RDCS, RVT..... Abstract 2

A Novel Lens on Psychological Safety: Examining Clark's Theory in Medical Academia

Mason Pearce Abstract 24

Comparison of Proximal Junctional Kyphosis Rates in Lenke 1 Adolescent Idiopathic Scoliosis Patients Undergoing Posterior Spinal Fusion with Upper Instrumented Vertebrae at T3, T4, or T5

Colleen Phan, BS..... Abstract 33

Environmental Influences of Pediatric RSV: A Geospatial Approach

Maria Pita Abstract 28

Culturally Tailored Grocery Store Tours to Promote a Whole-Food, Plant-Based Diet for Hispanic Families: A Community-Based Approach to Combat Pediatric Obesity and MAFLD

Ruthie Richardson, BS..... Abstract 37

Evaluating the Medical Legal Partnerships Impact on Health-Harming Legal Needs of Pediatric Patients

William Robinson, BS Abstract 88

Short Chain Fatty Acids Enhance Daunorubicin Cytotoxicity in vitro in Acute Lymphoblastic Leukemia Cells

Georgia Roper, BS Abstract 80

Recurrence at the Reconnection: A Retrospective Study of Anastomotic Recurrence in Colorectal Cancer

Jennifer Rumsey, M3 Abstract 32

Emergency Clinician Workflow Across Legacy and Upgraded Workstation in the Midst of Technological Change

Logan Russell Abstract 7

Association between a shortage of normal saline and in-hospital outcomes among individuals with febrile neutropenia

Emma Sherman, BS..... Abstract 27

Creating Cost-Conscious Clinicians: Enhancing Cost-Awareness in Pre-Clerkship Medical Students Through A Combination of Case-Based Games and Lecture-Based Curriculum

Benjamin Sievert, MD Candidate..... Abstract 9

Association between Polypharmacy and Medication Adherence: A Meta Analysis

Brandon Stiff, BS Abstract 14

Bridging Recall and Application Through the Development and Validation of the Clinically Integrated Reasoning and Core Anatomy (CIRCA) Assessment Using Generative-AI

Ethan Stoll, BS Abstract 47

Identification of Fc Receptor Expression on Human Spermatozoa

Evan Stravolo, BA..... Abstract 30

Effectiveness of Prehospital Blood Administration in Pediatric Populations: A Scoping Review Protocol

Isabel Stringfellow, BS..... Abstract 15

Building Empathy through Polypharmacy Simulation (BEPS)

Gillian Sweeney, BS..... Abstract 43

Geospatial Visualization of Social Determinants of Health in Greenville County, South Carolina: Toward Understanding Pediatric Respiratory Infection Risk

Yash Verma..... Abstract 107

Gene Expression Profiles of Human Macrophages Reveal Insights into Pathogenesis of Necrotizing Fascitis-associated Acinetobacter baumannii

Jake Williams, BS..... Abstract 26

Covidence - A Valuable Platform for Systematic and Scoping Reviews

Jeffrey Woodward, BS Abstract 81

REFLECT: A Creative Approach to Centering Patient Identity in Research

Matthew Zirkle Abstract 98

The Impact on Emergency Department Visits after Education on the Utilization of After-Hours Triage in the Internal Medicine Clinic Population



STUDENT ORAL PRESENTATION SCHEDULE

2:15 PM - 3:45 PM | Studio

Meaghan Arnold - Abstract #97

The Impact of the Molecular Characterization Initiative on Care of Pediatric, Adolescent, and Young Adult Cancer Patients

Amariyah Ayee - Abstract #91

Stability in Vulnerability: Longitudinal Assessment of Material Need Insecurity in Patients with Cardiovascular Disease and HIV

Mya Beasley - Abstract #49

Imaging Modalities for Preoperative Location of Parathyroid Adenomas: Increasing Efficiency

Molly Croswell - Abstract #45

Good Vibes, Healthy Lives: A Community-Based Lifestyle Medicine Curriculum for School-Aged Children

Evelyn Farah - Abstract #19

CircRNA Profiles Reveal Race Specific Biomarkers in African American Breast Cancer Patients

Cooper Kuess - Abstract #96

The Effect of Social Drivers of Health on HgbA1c Reduction in the Wellness and Empowerment for Women Program at Prisma Health in Greenville, South Carolina

Danny Pharm - Abstract #70

Patients with Higher Preoperative ASES Scores have a Lower Chance of Achieving Successful Outcomes After Arthroscopic Rotator Cuff Repair

Shrika Ravichandran - Abstract #78

Promoting Growth While Avoiding Hyperglycemia in Neonates: an algorithm approach

Abigail Rohr - Abstract #52

In Vitro Characterization of Glioblastoma Inflammatory Signatures: Insights into Resistance and Model Selection

Yash Verma - Abstract #107

Gene Expression Profiles of Human Macrophages Reveal Insights into Pathogenesis of Necrotizing Fasciitis-associated *Acinetobacter baumannii*

ACKNOWLEDGEMENTS

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Student research efforts support the vision of the School of Medicine Greenville in empowering the next generation of physicians through cutting-edge technology, interprofessional collaboration, innovative teaching, and transformational research.

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