



JOHN B. GRAHAM

Medical Student Research Society

UNC Medical Student Research Day

November 10

2025

About the research society

Established in 1987, the John B. Graham Medical Student Research Society recognizes and promotes the research efforts of the medical student body at the University of North Carolina School of Medicine in basic science, public health, and clinical sciences. Students who participate in the annual Student Research Day, an event dedicated to showcase the research projects of medical students, are inducted every year to the Society. Throughout the year, members exchange ideas and share their experiences about conducting research. In addition, the Society serves to encourage collaboration with faculty to promote productive research opportunities for students.

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RESEARCH DAY SCHEDULE

Monday, November 10th, 2025

Location: Roper Hall

1:30-2:40

Keynote Speaker

Alicia Morgans, MD, MPH
Active Learning Theater

2:50 – 3:50

Networking Hour & Appetizers

Roper Hall Lobby

3:55 – 4:55

Poster Presentations

Medical Education..... Lower level
Basic Science..... Lower level & 1st floor
Public Health 2nd floor
Clinical Science..... 3rd, 4th, 5th, and 6th

5:10 – 6:10

Oral Presentations

Medical Education..... Room 4302
Clinical Science..... Room 4310
Public Health..... Room 5302
Basic Science..... Room 5310

6:25 – 7:00

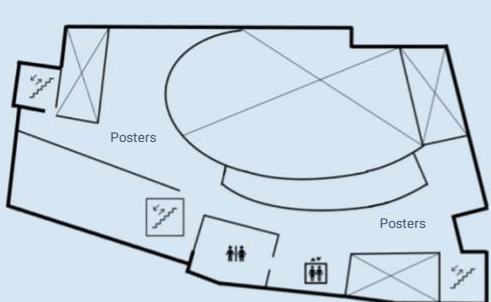
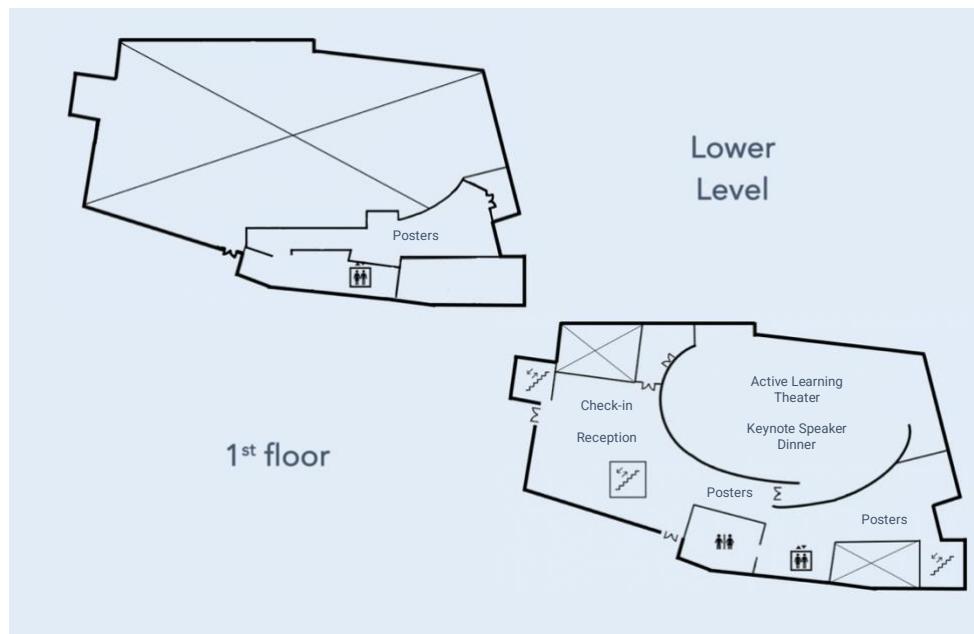
Dinner, Society Induction, Awards

Active Learning Theater
Reserved for student presenters,
judges, and faculty guest.

ROPER HALL MAP

Lower Level
Medical Education & Basic Science Posters
001-012

1st Floor
Active Learning Theater
Basic Science Posters
101-120



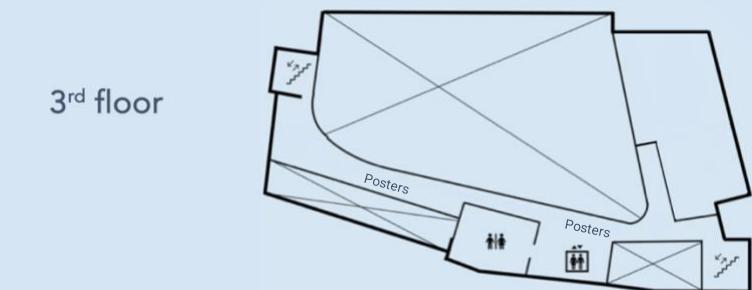
2nd floor

2nd floor Public Health Posters
#201-221

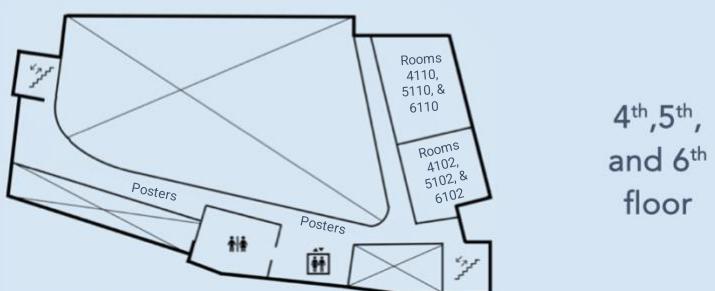
3rd floor Clinical Science Posters
301-330

4th floor Clinical Science Posters
401-428
Room 4302: Medical Education Oral Presentations
Room 4310: Clinical Science Oral Presentations

5th floor Clinical Science Posters
501-527
Room 5302: Public Health Oral Presentations
Room 5310: Basic Science Oral Presentations



6th Floor Clinical Science Posters
601-628

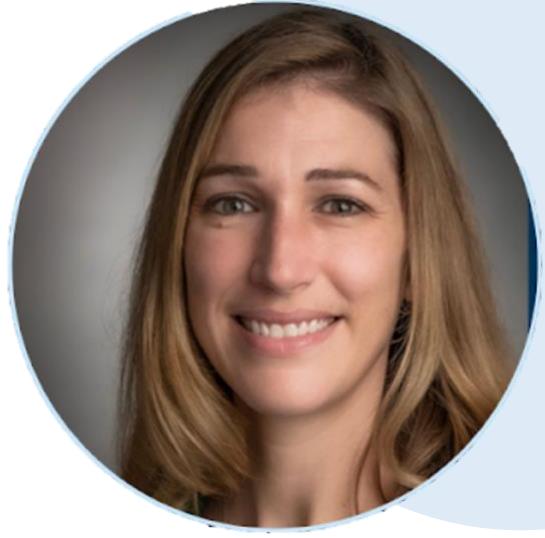


4th, 5th,
and 6th
floor

Keynote Speaker

Alicia Morgans, MD, MPH

Dr. Alicia Morgans is a Genitourinary Medical Oncologist and the Director of the Survivorship Program at Dana-Farber Cancer Institute.



A clinician and investigator, she has expertise in clinical trials and patient-reported outcome measures, as well as incorporating patient preferences and beliefs into clinical decision making.

Her research has investigated complications of systemic therapy for prostate cancer survivors, including the study of skeletal, cardiovascular, diabetic, and cognitive complications.

Her work has been funded by grants from the Prostate Cancer Foundation and the Department of Defense.

Student Research Day Team

2025-2026

Co-Presidents of John B. Graham Research Society

Emily Kounlavong

Maxwell Finkelstein

Benjamin Lau

Vice-Presidents of Student Research Day

Jordan Besh

Alexandra Weir

Mary Kaufmann

J Hunt

Treasurer and VP of Advertising and Outreach

Jimmy Tabet

Nicole DiDonna

For any questions about Student Research Day logistics, please contact any member of the Student Research Day team or JBGRResearchSociety@med.unc.edu.

Emily Kounlavong
Max Finkelstein
Benjamin Lau
Jordan Besh
Alexandra Weir
Mary Kaufmann
J Hunt
Jimmy Tabet
Nicole DiDonna

emily_kounlavong@med.unc.edu
maxwell_finkelstein@med.unc.edu
ben_lau@med.unc.edu
jordan_besh@med.unc.edu
alexandra_weir@med.unc.edu
mary_kaufmann@med.unc.edu
jocelyn_hunt@med.unc.edu
jimmy_tabet@med.unc.edu
nicole_didonna@med.unc.edu

Oral presentations

5:10 - 6:10 pm

Medical Education	Room 4302
Clinical Science	Room 4310
Public Health	Room 5302
Basic Science	Room 5310

Public Health

- Angelica Lackey
Increasing social vulnerability and socioeconomic disparities affect presentation and reduce treatment response in eosinophilic esophagitis
- Sneha Makhijani
Exploring primary care physician biases in adolescent contraceptive counseling
- Novi Zheng
Comparison of the PREVENT and Pooled Cohort Equations for 10-Year Atherosclerotic Cardiovascular Risk Prediction in a Cohort of Black and Latina Transgender Women
- Moussa Shahoud
Pre-Amputation Healthcare Utilization Across the Intersection of Race, Ethnicity, and Rurality: A Multi-State Analysis of Patients Undergoing Major Lower Extremity Amputation

Clinical Science

- Katharine Bruce
Anemia on Admission for Childbirth and Perinatal Mood and Anxiety Disorders –Modification by Intravenous Iron
- Lily Chen
Role of mast cell and pro-inflammatory markers on eosinophilic esophagitis after mepolizumab treatment
- Amy Wang
Cellular profiling identifies targetable T-cell phenotypes in lymphocytic variant hypereosinophilic syndrome
- Joshua Morningstar
Investigating the Effect of GLP-1 Medications on Outcomes Following Geriatric Hip Fracture Fixation

Basic Science

- Danielle Schmidt
Photothermal Prussian Blue Nanoparticle-Derived T Cell Expansion Platform Generates Potent, Multi-Targeted Therapy Ex Vivo for Autologous Patient Brain Tumors
- Simon Ellington
FANCA-deficient cancer cells are sensitized to PARPi and ATRi by homologous recombination-independent mechanisms
- Monica Lyons
Associations Between Structure-Function Coupling and Transdiagnostic Psychopathology in Youth
- Lucas Yang
Phosphoinositide 3-kinase-gamma supports antibody secreting cell differentiation

Oral presentations

5:10-6:10 pm

Medical Education

	Jenna Pellizzari	Assessing Physician's Understanding, Awareness, and Screening Practices for Hearing Loss in Older Adults
	Jaewon Moon	Developing the Medical Student "Chief" Role in the Psychiatry Curriculum
	Parker Skubiz	Using Photovoice to understand and improve the healthcare experiences of transgender and nonbinary patients
	Luke Passannante	Unraveling Chronic Recurrent Multifocal Osteomyelitis: An Autoinflammatory Bone Disorder

Medical Education

Room 4302

Clinical Science

Room 4310

Public Health

Room 5302

Basic Science

Room 5310

Oral presentation

Public Health

01

Increasing social vulnerability and socioeconomic disparities affect presentation and reduce treatment response in eosinophilic esophagitis

Angelica R. Lackey MPH, Stefani Aleman MPH, Alexandra A. Weir MS, Sean S. LaFata BS, Timothy S. Gee BS, Arjun K. Juneja BS, Hannah L. Thel BS, Brenderia A. Cameron MS, Justin McCallen MD, Christopher J. Lee MD, Gustaf N. Hendrick MD, Jose C. Bermudez BS, Daniel Song MD, Walker D. Redd MD MSCR, Trevor S. Barlowe MD, Cary C. Cotton MD MPH, Craig C. Reed MD MSCR, Evan S. Dellow MD MPH

Abstract:

Background: Social vulnerability describes relative disadvantage based on demographics and socioeconomic status. The impact of social vulnerability on the presentation or treatment outcomes of eosinophilic esophagitis (EoE) remains unknown.

Methods: We conducted a retrospective cohort study of patients with newly diagnosed EoE. The social vulnerability index (SVI) was used to estimate patients' relative vulnerability (with higher scores indicating more vulnerability). For patients undergoing topical steroid (tCS) treatment or dietary elimination with a follow-up endoscopy, we assessed histologic, symptomatic, and endoscopic responses. We compared baseline characteristics and post-treatment responses by SVI.

Results: Among 1,457 patients, the mean SVI was 0.42 ± 0.26 . Patients with higher SVIs frequently presented with atypical symptoms like vomiting ($p < 0.001$), abdominal pain ($p = 0.01$), or nausea ($p = 0.01$). The SVI was similar for patients treated with tCS or dietary elimination (mean 0.41 vs 0.40). However, patients with higher SVIs had decreased histologic tCS response that persisted after adjusting for confounders (aOR 0.32 for response < 15 eos/hpf; 95% CI: 0.18-0.65). When analyzing SVI by quartiles, patients in the highest quartile (highest social vulnerability) had 58% lower odds of histologic response to tCS compared to patients with the lowest vulnerability (aOR 0.42, 95% CI: 0.21-0.84). Of the SVI sub-themes, socioeconomic status, followed by housing and transportation, were associated with significantly reduced histologic tCS response ($p = 0.002$ and $p = 0.03$, respectively).

Conclusions: In EoE, higher social vulnerability, particularly lower socioeconomic status, was independently associated with lower histologic tCS treatment response. This association warrants further investigation of explanatory factors, including treatment adherence and increased allostatic load.

Oral presentation

Public Health

02

Exploring primary care physician biases in adolescent contraceptive counseling

Sneha A. Makhijani, Brooke W. Bullington, Kavita S. Arora, Bianca A. Allison

Abstract:

Background: While previous literature has shown clinician bias in adult contraceptive counseling, less is known on the biases clinicians may exhibit when counseling adolescents about contraception. Our study aimed to describe long-acting reversible contraception (LARC) counseling and prescribing practices of adolescent-serving clinicians.

Methods: This study used a cross-sectional discrete choice experiment mixed methods design. We sent a survey containing vignettes and items pertaining to demographics and beliefs to a convenience sample of adolescent-serving clinicians across the United States.

Results: Of 296 clinicians, 80% were in pediatrics, and had geographic, practice setting, gender, and racial diversity. Most clinicians reported being up-to-date with current literature regarding contraception. Sixty-eight percent of respondent's practices administer contraceptive injections, but only 17% place intrauterine devices (IUDs). Of those who do insert IUDs, nearly half inserted five or fewer within the last year. Patients' younger age and Hispanic ethnicity were associated with lower odds, and history of pregnancy was associated with higher odds, of clinicians' recommending LARC. Across all vignettes, the top five reasons clinicians chose their first-choice method for the patient were adherence or compliance, efficacy, side effects, patient age, and reversibility.

Conclusion(s): Clinicians often recommend contraceptives based on adherence, efficacy, and age, and we found younger age, minoritized race or ethnicity, and history of pregnancy were all associated with LARC recommendations, indicating potential biases against teen parents and assumptions about adolescents' priorities. This may impede the provision of patient-centered contraceptive counseling for adolescents, and highlights the need for improved education and practice changes post-Dobbs.

Oral presentation

Public Health

03

Comparison of the PREVENT and Pooled Cohort Equations for 10-Year Atherosclerotic Cardiovascular Risk Prediction in a Cohort of Black and Latina Transgender Women

Megan "Novi" Zheng, Molly Ehrig, Hayley Cunningham, Wiley Kornbluh, L. Zachary DuBois, Robert-Paul Juster, Sari L. Reisner, Andrea L. Wirtz, Asa Radix, Jowanna Malone, Kenneth Mayer, Carl Streed, Jr., Mabel Toribio, Ashleigh J. Rich, Tonia Poteat

Abstract:

Background: Transgender and gender diverse (TGD) people and people with HIV face elevated atherosclerotic cardiovascular disease (ASCVD) risk, yet existing risk estimators rely on binary sex measures that may misclassify risk in TGD populations. This study examined how different approaches to operationalizing sex variables affect ASCVD risk scores using the American Heart Association's Predicting Risk of Cardiovascular Disease Events (PREVENT) and Pooled Cohort Equation (PCE) within a cohort of Black and Latina transgender women with HIV.

Methods: A cross-sectional analysis was conducted using data from LITE Plus, a multisite study of 108 Black and Latina transgender women with HIV. PREVENT and PCE risk scores were calculated using sex assigned at birth, current gender identity, and gender-affirming hormone therapy (GAHT) status. Logistic regression was performed to determine whether GAHT duration or time since HIV diagnosis was linked to hyperlipidemia, diabetes, hypertension, or cardiac events.

Results: Using a $\geq 5\%$ risk cutoff, statin eligibility varied widely by estimator and variable used: 36.1% with PCE vs. 8.3% with PREVENT (sex assigned at birth); 15.7% vs. 8.3% (current gender identity); and 21.3% vs. 7.4% (GAHT). GAHT duration was not associated with ASCVD risk factors or events.

Conclusions: Clinical recommendations for statins would be dramatically lower if PREVENT was used instead of PCE for estimating ASCVD risk. Given the increased cardiovascular risk faced by TGD people living with HIV, more studies are needed to assess intersectional factors that may augment risk. This study supports the safety of GAHT use.

Oral presentation

Public Health

Pre-Amputation Healthcare Utilization Across the Intersection of Race, Ethnicity, and Rurality: A Multi-State Analysis of Patients Undergoing Major Lower Extremity Amputation

04

Moussa Shahoud, BS; Grace Anne Longfellow, BS; Paula D. Strassle, PhD, MSPH; Katharine L. McGinigle, MD MPH

Abstract:

Background: Fifteen to twenty percent of patients with chronic limb-threatening ischemia (CLTI) undergo amputation within one year of diagnosis. Patterns of healthcare utilization in the year preceding major lower extremity amputation (MLLA) remain unknown. This study aimed to evaluate pre-amputation healthcare utilization across race and/or ethnicity and rurality.

Methods: A retrospective cohort study of Healthcare Cost and Utilization Project State Inpatient Databases (HCUP SIDs) for five states was conducted. Hospitalizations for Black, Hispanic, and White patients aged ≥ 40 years with a present-on-admission diagnosis of peripheral arterial disease (PAD) or CLTI who underwent MLLA from 2017 to 2019 were included, and healthcare utilization in the year preceding their MLLA hospitalization was assessed. Differences in prior hospitalizations, minor lower limb amputations, and revascularization procedures were compared across race and/or ethnicity and rurality.

Results: The cohort comprised 21,233 people who underwent MLLA. Most patients ($>70\%$) underwent MLLA without prior revascularization or minor lower limb amputation, irrespective of race and/or ethnicity and rurality. Over half of all MLLA patients were hospitalized at least twice in the year preceding (once for PAD/CLTI specifically). Non-rural Black and Hispanic patients were more likely to be hospitalized in the year prior, with half of urban Black patients experiencing three or more hospitalizations in the year before amputation.

Conclusions: Significant racial and/or ethnic and urban/rural disparities exist in inpatient pre-amputation healthcare utilization among PAD patients. Regardless of race and/or ethnicity or rurality, most underwent MLLA without prior limb-sparing care. Findings underscore the need for interventions to reduce preventable amputations.

Oral presentation

Clinical Science

Anemia on Admission for Childbirth and Perinatal Mood and Anxiety Disorders -Modification by Intravenous Iron

01

Katharine E Bruce, Alison M Stuebe, Stephanie M Engel

Abstract:

Background: Perinatal anemia may increase risk of Perinatal Mood and Anxiety Disorders (PMADs). Prior studies are mixed, and none have examined the role of IV iron in modifying this association.

Methods: This retrospective cohort study evaluated the relationship between hemoglobin on admission for childbirth and PMADs within 3 months postpartum using UNC Health System medical records. Participants gave birth at ≥ 20 weeks gestation from April 2016 through June 2024. Hemoglobin, from complete blood count labs, was categorized as severe (<9 mg/dL), moderate ($9-11$ mg/dL), or no anemia ($11+$ mg/dL). Patients had PMAD symptoms if they screened positive on the Edinburgh Postnatal Depression Scale, Patient Health Questionnaire 9, and/or General Anxiety Disorder 7. Generalized Estimated Equations calculated risk ratios, adjusting for age, race/ethnicity, insurance, parity, multifetal-gestation, comorbidities, and Area Deprivation Index of home address.

Results: Among 26,186 participants, 24% had anemia, 3% received IV iron before discharge, and 16% had PMADs. Compared to those without anemia, those with severe anemia had 1.24 times the risk of PMADs (95% Confidence Interval (CI):1.02-1.52), and those with moderate anemia had 1.10 times the risk of PMADs (CI:1.03-1.17). This association persisted in those not receiving IV iron (Severe: relative risk (RR):1.21, CI:0.97-1.52; Moderate: RR: 1.08, CI: 1.01-1.16), but there was less evidence of an association in those who did (Severe: RR:1.05, CI:0.60-1.87; Moderate: RR:1.14, CI:0.77-1.70).

Conclusion: Anemia on admission for childbirth increased risk of PMADs. The stronger relationship between anemia and PMADs among those not receiving IV iron suggests treating anemia before discharge may mitigate this risk.

Oral presentation

Clinical Science

Role of mast cell and pro-inflammatory markers on eosinophilic esophagitis after mepolizumab treatment

02

Lily Chen, Dr. Evan Dellow

Abstract:

Background: Eosinophilic esophagitis (EoE) is characterized by eosinophilic infiltration of the mucosa and associated with symptoms of esophageal dysfunction. Recent clinical studies found that eosinophil-depleting monoclonal antibodies, such as benralizumab and mepolizumab, significantly decreased eosinophil counts but did not result in alleviation of dysphagia symptoms or improvement of endoscopic features. The aim of the study is to explore the mechanism of persistent EoE disease activity despite eosinophil depletion.

Method: Esophageal biopsies from mepolizumab (n=28) and placebo (n=32) patients at baseline and 3 month post-treatment were sectioned and stained for the mast cell marker tryptase and for CD3+ T-cells. Then, slides were digitized and images analyzed using Aperio Positive Pixel Count Algorithm to evaluate the levels of mast cells and CD3+ T-cells pre and post-treatment. Correlations between cell levels, symptom metrics, and endoscopic severity were also calculated.

Results: Peak eosinophilic count decreased significantly ($p<0.001$) following mepolizumab treatment. There is no significant changes in mast (590 ± 489 cells/mm²) or CD3+ cells (349 ± 186 cells/mm²) compared to placebo (440 ± 235 cells/mm², 355 ± 136 cells/mm², respectively), and no significant correlation was found between mast and CD3+ cells and endoscopic ($R=0.29$, -0.09 , respectively) and symptom severity ($R=0.25$, 0.46 , respectively).

Conclusion: Mast and CD3+ T-cell levels persisted after mepolizumab treatment, suggesting that mepolizumab does not effectively reduce other inflammatory markers despite marked decreases in tissue eosinophils in adult EoE patients. Future study can focus on investigating additional cell types and their effects on EoE.

Oral presentation

Clinical Science

Cellular profiling identifies targetable T-cell phenotypes in lymphocytic variant hypereosinophilic syndrome

03

Amy Wang, Kristy Tefft, Zachary Reinstein, Yue Zhang, Sunghee Hwang, Jaehyuk Choi

Abstract:

Background: Lymphocytic variant of hypereosinophilic syndrome (LHES) is a rare, incurable inflammatory condition driven by aberrant Th2-like lymphocytes. To elucidate its molecular mechanisms, we performed the first-of-its-kind single-cell analysis of patient samples.

Methods: Peripheral blood was collected from 4 patients with LHES and 1 with idiopathic HES, all treated with JAK inhibitors. Flow cytometry identified an aberrant CD3-CD4+ T-cell population in LHES patients. Samples underwent single-cell RNA, T-cell receptor, and surface protein sequencing. CD3-CD4+ cells were analyzed with Seurat, SCENIC, and CellChat.

Results: CD3-CD4+ lymphocytes shared features with Th2 cells, including upregulation of transcription factors (GATA3, BATF), cytokines (IL-13), and surface markers (PTGFR2, CCR8, CCR4). However, they also exhibited distinct transcriptional programs linked to proliferation and stemness, elevated CCR4 and CD52 surface protein expression, and production of TNF. These features highlight targetable vulnerabilities. For one patient with refractory, rapidly progressive LHES, treatment with off-label mogamulizumab (anti-CCR4) eliminated CD3-CD4+ lymphocytes by 6 weeks and resolved cutaneous symptoms within 3 months. Mechanistically, we found that reduced CD3 ζ chain expression accounted for surface CD3 loss. We hypothesized that CD3-CD4+ lymphocytes exploit a compensatory autocrine IL-7 signaling pathway to drive antigen-independent proliferation. Finally, in a patient progressing on JAK inhibitor, we identified a STAT3 p.G618R variant, suggesting a mechanism of therapeutic resistance.

Conclusion: We identify novel molecular features of LHES that reveal actionable targets and resistance pathways. Importantly, these insights have already translated to clinical benefit in a patient with refractory disease, underscoring the potential of precision therapies for this rare condition.

Oral presentation

Clinical Science

Investigating the Effect of GLP-1 Medications on Outcomes Following Geriatric Hip Fracture Fixation

04

Joshua Morningstar, Nicholas Bank, Bradley Lauck, Anthony Paterno, Andrew Chen

Abstract:

Introduction: Hip fractures remain a major cause of morbidity in older adults, particularly among patients with diabetes mellitus. Glucagon-like peptide-1 receptor agonists (GLP-1RAs) have demonstrated benefits in glycemic control, weight loss, and inflammation modulation, but their impact on hip fracture outcomes remains unclear. As such, this study aims to investigate the effect of GLP-1RA usage on outcomes after hip fracture fixation.

Methods: This retrospective cohort study used the TriNetX database to identify adults undergoing surgical fixation for closed hip fractures between 2004 and 2024. Patients were stratified by GLP-1RA use, defined as a prescription within 6 months prior to or 1 month after surgery. Propensity score matching (1:1) was performed to balance demographics and comorbidities. Outcomes were assessed at 90 days and 1 year postoperatively, including complications, readmissions, reoperations, and mortality. Odds ratios (OR) and 95% confidence intervals (CI) were calculated for each outcome.

Results: At 90-days postoperatively, patients on GLP-1RAs were found to have significantly decreased odds of delirium (OR=0.675; 95% CI=0.464-0.982), pneumonia (OR=0.612; 95% CI=0.438-0.855), and readmission (OR=0.760; 95% CI=0.612-0.945). At 1-year postoperatively, patients on GLP-1RAs displayed significantly higher odds of femoral non/malunion (OR=2.097; 95% CI=1.147-3.833). There were no significant differences in odds of infection, revision, or mortality at either time point postoperatively.

Conclusion: GLP-1RA therapy is associated with reduced short-term complications and readmissions after hip fracture fixation but may increase risk of long-term skeletal complications. These findings underscore the need for further investigation into the impact of GLP-1RA use on bone healing and long-term orthopedic outcomes

Oral presentation

Basic Science

Photothermal Prussian Blue Nanoparticle-Derived T Cell Expansion Platform Generates Potent, Multi-Targeted Therapy Ex Vivo for Autologous Patient Brain Tumors

01

Danielle E Schmidt, Sveta V Jagannathan, Grace E. Olsson, Rebecca Page, Katharine N. Rus, Nethaji Muniraj, Conrad Russell Y Cruz, Rohan Fernandes, Elizabeth E Sweeney

Abstract:

Background: Glioblastoma is a deadly cancer with limited treatment options and a five-year survival rate of just 5%. Current immunotherapeutic strategies, such as chimeric antigen receptor (CAR) T cell therapy, face significant challenges in addressing solid tumors due to tumor heterogeneity, immune evasion, and limited foreknowledge of tumor antigens. To overcome these obstacles, we have previously demonstrated the use of immunostimulatory photothermal nanoparticles to generate effective, tumor-specific T cells ex-vivo, using two glioblastoma cell lines in allogeneic models.

Methods: Building towards clinical translation of this platform, we now describe the first use of Prussian blue nanoparticle-based photothermal therapy (PBNP-PTT) in autologous patient samples. Using nine patient blood and correlating tumor samples, we demonstrate that when PBNP-PTT is administered to whole tumor cells, co-cultured with dendritic cells, and subsequently stimulated with patient CD14-, we effectively generate cytotoxic, tumor-specific T cells.

Results: These T cells showed a statistically significant, tumor-specific IFN-gamma response that was 2.7 to 5.3 times that of background T cell response and 16 to 207.5 times that of non-specific CD14- cells. T cell cytotoxicity also indicated 15.2% to 36.2% tumor cell lysis within 24 hours, and flow-cytometry confirmed the presence of both CD4+ and CD8+ populations. Lastly, T cell receptor sequencing of non-specific CD14- cells compared to tumor-specific T cells exhibited a focused immune response with high clonal expansion in PBNP-PTT T cells.

Conclusions: These findings support the use of the PBNP-PTT expansion platform to stimulate and expand primary T cells ex-vivo for the treatment of solid brain tumors.

Oral presentation

Basic Science

FANCA-deficient cancer cells are sensitized to PARPi and ATRi by homologous recombination-independent mechanisms

02

Simon W. Ellington, Qinhong Wang, and Gaorav P. Gupta

Abstract:

Background: PARP inhibitors (PARPi) are DNA damage-inducing drugs approved for treating BRCA-mutant cancers. PARPi sensitivity is thought to be mediated by deficiency in homologous recombination (HR), an important DNA repair process. As such, HR-deficiency is currently the sole indication for PARPi treatment. However, the complete set of mechanisms underlying sensitivity to PARPi remain poorly understood.

Methods: We performed *in vivo* CRISPR screening to test the effects on *in vivo* tumor growth of mutating 310 unique DNA damage response (DDR) genes. We conducted cell viability assays to assess sensitivity of FANCA-deficient and FANCA-WT tumors to PARPi or PARPi/ATRi combination. We performed immunofluorescence staining to detect markers of DDR signaling pathway function in the context of FANCA-deficiency.

Results: We discovered that tumors deficient in the DDR gene FANCA are more sensitive to PARPi than control tumors, and that FANCA deficiency confers sensitivity to PARPi in breast and lung cancer cell line. We further demonstrated synergy between PARPi and ATR inhibitors (ATRi) in killing FANCA-deficient cancer cells. We showed that following treatment with PARPi, FANCA-deficient cells are proficient in HR. Finally, we showed that under DNA replication stress, FANCA-deficient cancer cells display increased PARP1 signaling, suggesting that FANCA functions as a backup to PARP1 in the replication stress response, rendering FANCA-deficient cells addicted to PARP1 for survival.

Conclusions: These findings identify mechanisms of PARPi sensitivity outside of HR deficiency, providing a rationale for clinical investigation of PARPi treatment in patients with FANCA-mutant cancers, which make up 4% of metastatic breast cancer cases.

Oral presentation

Basic Science

Associations Between Structure-Function Coupling and Transdiagnostic Psychopathology in Youth

03

Monica G. Lyons, Yoonmi Hong, Rebecca L. Stephens, Margaret A. Sheridan, Haitao Chen, Wei Gao, Martin A. Styner, John H. Gilmore, Jessica R. Cohen

Abstract:

Background: Half of all lifetime mental health disorders emerge by adolescence, yet the brain mechanisms underlying this risk remain unclear. Early adolescence is a sensitive period marked by changes in both structural (white matter) and functional (activity-based) brain networks. The correspondence between these networks, known as structure-function coupling (SFC), shifts across development and has been linked to several psychiatric disorders, including ADHD, schizophrenia, and bipolar disorder. This suggests SFC may reflect a transdiagnostic marker of risk for psychopathology in youth.

Methods: Ninety 8-year-old children with high-quality diffusion MRI, resting-state functional MRI, and psychiatric assessments were included. Transdiagnostic psychopathology was calculated using a general “p-factor,” derived from several psychiatric symptom questionnaires. Structural and functional brain networks were constructed and correlated to estimate SFC, focusing on four key networks implicated in mental illness: the frontoparietal (FPN), salience (SN), default mode (DMN), and sensorimotor (SMN) networks. Structural equation models tested associations between SFC and p-factor, controlling for age and sex.

Results: Children with higher p-factor showed increased SFC within FPN, decreased SFC between FPN and DMN, and increased SFC between DMN and SMN.

Conclusions: These preliminary findings are the first to demonstrate associations between SFC and the general p-factor in children. They replicate and extend prior observations that connectivity within the FPN and between the DMN and other networks is relevant to transdiagnostic psychopathology. Specifically, they suggest that increased structural constraint within executive control systems (FPN) and disrupted balance between internally (DMN) and externally (FPN, SMN) oriented processing may both underlie youth psychopathology.

Oral presentation

Basic Science

Phosphoinositide 3-kinase-gamma supports antibody secreting cell differentiation

04

Lucas Yang, Stephen Lanahan, Dinesh Babu Uthaya Kumar, and Carrie L. Lucas

Abstract:

Background: The role of phosphoinositide 3-kinase (PI3K) gamma in the differentiation of B cells and humoral immunity has yet to be intensively investigated. We previously discovered human biallelic loss-of-function mutations in the PIK3CG gene encoding PI3K gamma, which resulted in broad antibody defects and associated infections.

Methods: Total and cell type-specific *Pik3cg* knockout mice were challenged with T-dependent immunization to test for antibody production and differential gene expression. Ex vivo human B cells and PI3K gamma inhibitors were used to investigate differentiation and protein expression.

Results: Gene expression data revealed that PI3K gamma is expressed highest in antibody secreting cells (ASCs), which concomitantly downregulate PI3K delta. We also observe defective differentiation of pan-B cells or memory B cells into ASCs ex vivo in the presence of a specific PI3K gamma inhibitor, consistent with a non-redundant role supporting signals driving the transition to the ASC fate. Moreover, we can partially rescue defective ASC differentiation using a PI3K alpha activator to increase phosphatidylinositol (3,4,5) trisphosphate (PIP3) levels in cells lacking PI3K gamma. Gene Set Enrichment Analysis of RNA sequencing data on in vivo differentiated germinal center B cells identified mTORC1 signaling, cholesterol biosynthesis, and unfolded protein response, as possible pathways dependent on PI3K gamma. We observed impaired upregulation of IRF4 in the ex vivo cultures, while cholesterol uptake was not affected.

Conclusions: We describe that PI3K gamma has a previously undefined role in ASC differentiation, functioning within B cells to support robust IRF4 regulation and associated remodeling.

Oral presentation

Medical Education

Assessing Physician's Understanding, Awareness, and Screening Practices for Hearing Loss in Older Adults

01

Jenna Pellizzari, Kelsey Ross, Mallory McClester Brown

Abstract:

Background: Age related hearing loss (ARHL) is a condition that affects majority of older adults, affecting physical and mental health. A key step in reducing the burden of ARHL is prompt diagnosis, which can be achieved through screening. This study sought to gain insight into Family Physicians' screening practices, attitudes towards screening, and investigate relationships between perceived screening competency, treatment knowledge, comfort with hearing loss related discussions (HLRD), and screening practices.

Methods: A survey was designed and electronically distributed to Family Medicine physicians at UNC. Descriptive statistics, linear, and multiple regressions were performed in RStudio.

Results: 23.7% of respondents reported screening "most" or "all or almost all" patients regularly for ARHL. Awareness of related conditions (depression, dementia, social isolation, diabetes, fall risk) was generally high except for diabetes. Physicians ranked their perceived screening competency, treatment knowledge, and comfort with HLRD as mostly "slightly competent/knowledgeable/ comfortable" or "somewhat competent/knowledgeable/ comfortable". Multiple regressions between perceived screening competency and screening frequency, and treatment knowledge and comfort with HLRD, were statistically significant when controlling for years of experience, with coefficients of 0.54 and 0.59, respectively.

Conclusions: Screening for ARHL was relatively low and general attitudes towards hearing loss were highly varied. The importance of education and training related to ARHL was supported by the associations between perceived screening competency and screening frequency, as well as between treatment knowledge and comfort with HLRD. This study hopes to inform targeted education for trainees to increase ARHL screening to improve quality of life outcomes for older adults.

Oral presentation

Medical Education

Developing the Medical Student “Chief” Role in the Psychiatry Curriculum

02

Jaewon Moon, BS; Christian Cook, BS; Dana Doctor, MD

Abstract:

Background: The role of Chief Residents in Graduate Medical Education is well established, but there is no clear parallel role in Undergraduate Medical Education. We describe a novel role of a Medical Student “Chief” in Psychiatry. It provides fourth-year students who plan on applying to psychiatry residency with opportunities for teaching, mentorship, and advanced clinical skill-building. It also enhances the learning experience for pre-clinical and early clinical students.

Methods: Two fourth-year medical students were selected as Chiefs at an academic institution. After recently completing the Psychiatry clerkship, the Chiefs serve as trusted near-peer mentors and liaisons between students and faculty. They collaborated with clerkship leadership to identify curricular gaps, designed supplemental educational initiatives, and collected participation data and informal feedback to evaluate impact.

Results: The Chiefs hosted Psychiatry OSCE review sessions, created a longitudinal mental status exam review distributed through GroupMe, and produced a diagnostic reference guide for clerkship and shelf preparation. They also led orientation sessions and hosted office hours. The OSCE review session had strong synchronous and asynchronous attendance. Overall, these interventions received positive informal feedback and demonstrated sustained engagement.

Conclusions: Preliminary findings suggest the Chief role enhances the psychiatry clerkship and offers leadership development for the Chiefs. Limitations include possible self-selection bias among students who engaged with the material. Future steps include piloting a survey to assess efficacy and expanding the role to support pre-clinical educational initiatives. This role may serve as a model for student-led academic leadership across specialties and stages of Undergraduate Medical Education.

Oral presentation

Medical Education

Photovoice to understand and improve the healthcare experiences of transgender and nonbinary patients

03

Parker Skubiz, Ben Kaplan, Ben Silver

Abstract:

Background: Transgender and non-binary (TGNB) individuals often experience barriers to healthcare access, including negative experiences related to their TGNB identities when seeing healthcare providers. These negative experiences reflect a lack of provider knowledge and cultural competence when engaging with TGNB patients, due in large part to limited medical education around the care of this population. Conversely, positive, affirming healthcare experiences have the potential to significantly improve mental and physical health outcomes for TGNB individuals. It is therefore necessary to improve medical education regarding TGNB health and care of this population.

Methods: We used Photovoice to explore the experiences of TGNB patients at our network of academic family medicine clinics. Participants used their phones to capture images around their experiences of accessing healthcare, as well as aspects of their lives and identities that they would want to share with their clinical teams. They discussed these images with each other and with project personnel through audio-recorded focus groups.

Results: While results will vary according to participants' experiences, we aim to better understand what critical information is currently missing from medical education in the care of TGNB patients. We plan to compile an executive summary of recommendations for educational, clinical and other interventions to improve their healthcare experiences and outcomes to present to clinic leadership and share with other centers. We also aim to develop a conceptual model through thematic open coding of Photovoice group transcripts.

Conclusion: Final conclusions are pending data analysis. Future work should assess the implementation of these recommended interventions.

Oral presentation

Medical Education

Unraveling Chronic Recurrent Multifocal Osteomyelitis: An Autoinflammatory Bone Disorder

04

Luke Passannante, Dr. Laleh Hakima

Abstract:

Background: Chronic recurrent multifocal osteomyelitis (CRMO) is a rare pediatric autoinflammatory bone disorder characterized by a relapsing and remitting course of sterile osteolytic or sclerotic lesions. Accurate and timely diagnosis is challenged by a broad differential, which includes trauma, infection, malignancy, metabolic, and autoimmune conditions. We present the case of an 11-year-old girl with multifocal bone pain and swelling.

Methods: Clinical history, physical examination, laboratory studies, and imaging were performed. A CT-guided biopsy of the clavicle was obtained to rule out infection and malignancy. Histologic evaluation and microbiologic culture were conducted. A CRMO specific framework, the Jansson criteria, was applied.

Results: The patient presented with one month of knee and clavicular pain and swelling. Labs were notable for normal blood counts and chemistry with elevated inflammatory markers. Imaging revealed symmetric metaphyseal marrow signal abnormalities of the distal femurs and proximal tibias, and an osteolytic lesion with periosteal reaction in the clavicle. Bone biopsy showed trabecular bone with marrow fibrosis and remodeling, without acute inflammation, malignancy, or microbial growth. These findings fulfilled the Jansson criteria for CRMO. First-line treatment with NSAIDs was initiated.

Conclusions: This case highlights the diagnostic complexity of CRMO, a diagnosis of exclusion requiring integration of clinical, serologic, radiologic, and histopathologic findings. Biopsy is an important tool in diagnostically ambiguous cases. Early recognition and appropriate management can reduce morbidity, limit growth disturbances, and improve long-term outcomes.

Poster Presentations

Posters are categorized as medical education (ME), public health (PH), clinical science (CS), or basic science (BS).

#	Topic	Presenter	Title
01	ME	Molly Haggerty	Targeting Co-Morbid Anxiety, Depression, and Disordered Eating Symptoms Among Young Adults in an Online Single-Session Intervention Promoting Intuitive Eating
02	ME	Alexander Requarth	Medical Education Curricula – A Decision Between Implementing Friday vs Monday Exams and its Impact on Medical Student Burnout and Academic Efficiency
03	ME	Marvin Albert Meza Jarquin	The Case for Comprehensive Medical Spanish Education in the USA
04	BS	Ellie Canty	Beyond Bactericidal Effects: Carbapenems Modulate NETosis and MRSA Killing by Human Neutrophils
05	BS	Maya Teitz	Developing magnetic resonance imaging (MRI) biomarkers of radiotherapy-induced brain injury (RIBI) in a preclinical mouse model
06	BS	Sydney Hawkins	Hypothalamic MC3R Neurons Link Metabolic State to Reproductive Function
07	BS	Annaliese OuYang	Subcellular localization impacts PTEN activity in the murine dentate gyrus
08	BS	Jacob Callaway	Tartrazine-Enabled Enhanced Image Depth Penetration with Quantitative Oblique Back-illumination Microscopy (qOBM)
09	BS	Taylor Cosey	Human IgE antibodies recognize the vicilin and alpha-hairpinin domains of peanut allergen Ara h 1
010	BS	Reagan Howell	Characterizing Cellular Biomarkers for Pediatric Crohn's Disease
011	BS	Rennica Huang	Electronic Cigarette Components Elicit Misregulation of Trophoblast Gene Expression
012	BS	Kathryn Kylie Joyce	Early onset and progressive sleep disruption in Alzheimer's model mice
101	BS	Alina Shcherbakova	3D Model of ADX88178 Positive Allosteric Modulation of mGluR4
102	BS	Danielle Cannon	Analysis of ecDNA and Heterogeneity in SUM159PT as a Model System for TNBC
103	BS	Blake Inabinett	Priming Schedule Modulates T Cell Variability in Peptide Vaccination

104	BS	Gayatri Ratakonda	The Effects of PIM3 Inhibition on Estrogen Receptor Positivity and Endocrine Therapy Susceptibility in Breast Cancers
105	BS	Nick Eberwein	Thiazolothiazole Photosensitizers: Photodynamic Therapy of Intracellular and Biofilm-Associated Pathogens
106	BS	Rachel George	Active PCR Case Detection for Malaria Using Leftover Rapid Diagnostic Tests to Support Outbreak Investigation in Zanzibar
107	BS	Matthew Sutcliffe	Integrating survival and drug response prediction in mouse mammary cancer models
108	BS	Sophie Wu	Combining the RCAS/tv-a retrovirus and CRISPR/Cas9 gene editing systems to generate primary mouse models of diffuse midline glioma
109	BS	Teresa Zheng	Impact of Irradiation on the Pharmacokinetics and Biotransformation of Tamoxifen
110	BS	Daisy Quach	Exploring the Role of VPREB1 in Muscle Cell Metabolism and Proliferation Using CRISPRi in C2C12 Myoblast Cells
111	BS	Abigail Cragin	The Effects of Protein Stability on Antigen MHC-I Presentation and CD8+ T-Cell Response
112	BS	Quinn Douglas	The Locational Prevalence and Preventive Role of BPIFA1 in Asthma
113	BS	Catherina Sauter	Biomarkers in valvular disease: PVR is upregulated and CRELD1 is downregulated in plasma of patients with severe aortic stenosis
114	BS	Ethan Jarrett	Assessment of renal clearance for transplant viability in ex-vivo subnormothermic human kidney perfusion
115	BS	Riley Davis	SIRT6 Activation by MDL-800 Reduces DNA Damage in Synovial Fibroblasts
116	BS	Jada Frisbee	Inflammation Modulation as a Mechanism of alpha1-Adrenergic Receptor Protection in Aging Cardiomyocytes
117	BS	Caroline Greene	Investigating astrocyte mediated neuroimmune responses following TBI
118	BS	Tyler Hutchens	Liposome-Mediated Delivery of Compound X to Human Chondrocytes for Osteoarthritis Disease Modification
119	BS	Joe Danica Inigo	Spatiotemporal Changes of CHIP and their Contribution to the Spinocerebellar Ataxias
120	BS	Dristen Trate	Investigating the relationship between the physicochemical properties of bile and drug toxicity
201	PH	Jack Otterson	State-level COVID-19 lockdown stringency associated with increases in suicide firearm mortality rates
202	PH	Muaz Modan	Promoting Health Through Lifestyle Medicine Group Visits: A Feasible Model for Family Medicine

203	PH	Saratu Garba	The Association of Pregnancy and Lactation with Maternal Weight Change in Cebu, Philippines
204	PH	Margaret Anne Smith	Impact of rural living on asthma severity in North Carolina: Evaluating the role of commercial swine farming and proximity to primary care pediatrician or pediatric pulmonologist
205	PH	Kainat Aslam	Measuring Nursing Burnout in a Fully Virtual Hospital at Home Program
206	PH	Michael Ly	The Risk of Emergent Colectomy for Ulcerative Colitis has Increased Over Time
207	PH	Seth Eller	Medicaid Coverage Policy Variations for Chronic Pain and Opioid Use Disorder Treatment
208	PH	Shirin Adel	Association between experiences of healthcare discrimination and mental health in pregnant women: RADAR Study pilot
209	PH	Megan Ralfe	Outcomes of a Multidisciplinary Home-Based Palliative Care Model in India
210	PH	Jack Hunter	Assessing clinician perceptions of Spanish-language counseling around Pre-Exposure Prophylaxis (PrEP) against HIV
211	PH	Jaspreet Bhutani	"If I start panicking over having enough, then I start eating too much": Understanding the eating behaviors of SNAP recipients in larger bodies during COVID-19
212	PH	Anusha Dubey	Experiences with Fertility Preservation and Counseling for Transgender and Nonbinary Patients: A Narrative Review
213	PH	Alexander Tanas	Evaluation of Efficacy and Safety of Thermal Ablation Compared to Surgical Resection in T1bN0M0 Renal Cell Carcinoma: a population-based NCDB analysis
214	PH	Mohanapriya Cumaran	Effects of Rural Living on Veteran Mental Health: Insights from the Building Veteran Healthy Communities Initiative
215	PH	Ajanta Choudhury	Important considerations for community-based research: lessons learned from CVD prevention program "Heart Matters"
216	PH	Jennifer Te Vazquez	Empowering Latinx Communities with Culturally Tailored Eating Disorder Interventions in Pediatric Primary Care
217	PH	Preetha Ramachandran	Assessing Communication in Children with MECP2 Duplication Syndrome: Cognitive Interviews using the Observer-Reported Communication Ability Measure
218	PH	Dalton Craven	Feasibility and acceptability of HIV pre-exposure prophylaxis in pregnant women in Malawi: A qualitative study
219	PH	Daniel Lee	Barriers and Facilitators to Hydroxyurea Adherence in SCD Patients in Kalangala, Uganda

220	PH	Rishita Chamarthi	The Effect of Access to Surgical intervention on Burn Mortality in Resource-Limited Settings
221	PH	Rieti Gengo	When comfort confounds: Ethnography elucidates divergent immuno-inflammatory stress biomarkers among refugees at Kakuma Refugee Camp, Kenya
301	CS	James Hardy	Approaches to treating kratom use disorder in the perinatal population: a case comparison of three patients in rural Western North Carolina
302	CS	Tessa Buscher	Words on the Street: Analyzing Language in Against Medical Advice Discharge of Individuals Experiencing Homelessness
303	CS	Gabrielle Adams	Head and Neck Free-Flap Reconstruction in Patients With Pre-Existing Coagulopathies: A Case Series
304	CS	Akshatha Bharadwaj	Prehospital Vasopressor Use for EMS Suspected Sepsis Patients
305	CS	Grace Tabor	Improving Sexual History-Taking in Primary Care Visits for Young Adults at a Community Health Center
306	CS	Brendan Lemezis	Codon-pair deoptimized respiratory syncytial virus vaccine candidates robustly activate human monocyte-derived dendritic cells in vitro
307	CS	Kees Heetderks	Analysis of Drug Deposition Effectiveness in Patients Undergoing Tract Balloon Dilation
308	CS	Phoebe Pak	A Pilot Randomized Controlled Trial of Families Addressing Cancer Together (FACT) for Parents With Cancer
309	CS	Langley Barnes	Evaluation of Topical Steroid Treatment in Eosinophilic Esophagitis with Comorbid Allergic Rhinitis
310	CS	Paul Karre	The association between rurality and hepatocellular carcinoma surveillance among insured adults with cirrhosis in North Carolina
311	CS	Christopher Pede	The Effects of Adjuvant Radiotherapy on Survival Outcomes in Polymorphous Adenocarcinoma
312	CS	Sylvia Mihalescu	Performance of the International Consensus on Radiological Criteria in Predicting Extranodal Extension in Head and Neck Squamous Cell Carcinoma
313	CS	Forest Wilke	A Transparent Adjunct to Doppler Ultrasound for Predicting Pediatric Testicular Torsion Using Routine Sonographic Features
314	CS	Olivia Jochl	Factors and Patient-Reported Outcomes Associated with Stress Fracture after Periacetabular Osteotomy
315	CS	Miles McAllister	Evaluation of a Risk Tool for Associations with Patient-Reported Outcomes in Older Women Undergoing Chemotherapy for Early Breast Cancer

316	CS	Ruchi Dudhat	Sex Differences in Functional Outcomes After Intracerebral Hemorrhage
317	CS	Naomi Lerner	A comprehensive evaluation of visual attention and gaze patterns on the paralyzed face
318	CS	Stephen Perle	Changes in Leg Joint Moments in Response to Altered Vertical Limb Loading during Walking in Individuals with Knee Osteoarthritis
319	CS	Kayla Jensen	Treatment Patterns for cT1c Triple Negative or HER2 Positive Breast Cancer at a Single Institution
320	CS	Danielle Kapustin	Beyond Advance Directives: A Machine Learning Tool to Aid End-of-Life Decisions in Dementia Care
321	CS	Emily Wang	The Impact of Wearable Devices on Psychological Well-Being and Health Care Utilization in Patients with Cardiac Implantable Electronic Devices (CIEDs)
322	CS	Layan Shahrour	Small Intestinal Bacterial Overgrowth in Hidradenitis Suppurativa: A Prevalence Study and Its Association with Disease Burden
323	CS	Rabeya Tahir	Evaluation of Turner Syndrome Patients Undergoing Growth Hormone Therapy and Associated Risk of Ophthalmologic Complications
324	CS	Aeon Alex Nyx	Predictive Index for Safe Same-Day Discharge Following Deep Brain Stimulation in Parkinson's Disease and Essential Tremor
325	CS	Erica Zurbuch	Prior Abdominal Surgery is Not Associated with Adverse Pregnancy, Delivery or Neonatal Outcomes in Women with Crohn's Disease: Results from the PIANO Study
326	CS	Sophie Korenek	Hyperthermic Intraperitoneal Chemotherapy in Advanced-Stage Pediatric Colorectal Cancer
327	CS	Ahmad Odeh	Investigation of Emergent TAVR Outcomes in Patients in Cardiogenic Shock due to Severe Aortic Stenosis
328	CS	Meera Patel	Metabolic Abnormalities in a Cohort of STAT3 HIES Patients
329	CS	Akankshya Jena	A Mixed-Methods Evaluation of Post-Discharge Needs and Social Vulnerability in Trauma Recovery
330	CS	Abdullah Saleh	Awake Spine Surgery: 5-Year Retrospective Review of Anesthetic Techniques and Outcomes in Academic and Ambulatory Settings
401	CS	Samantha Kodikara	Frequency of potentially inappropriate medications in older adults admitted to inpatient geriatrics service screening workflow at UNC IMC Eastowne
402	CS	Brinda Raghavendra	Outcomes after delayed primary excision with and without radiation for rhabdomyosarcoma: A National Cancer Database analysis

403	CS	Ryan Sellers	Contemporary Biology, Management, and Outcomes of Congenital Mesoblastic Nephroma in Children: A Pediatric Surgical Oncology Research Collaborative Study	
404	CS	Erik Rundquist	Risk Factors for Adverse Outcomes Following Pilon Fracture Fixation: A Retrospective Review	
405	CS	Dakota Batchek	Anthropometrics and Baseline, Untargeted Omics to Characterize Older Adults with Frailty: A Pilot Study	
406	CS	Emily Summers	Combined Biologics and JAK Inhibitor Safety and Efficacy in Hidradenitis Suppurativa Patients	
407	CS	Madeline Sage	Clinical Efficacy of Golimumab for Treatment-Refractory Hidradenitis Suppurativa	
408	CS	Matthew Wang	To Test or Not To Test? It Is Rash To Even Question.	
409	CS	Sadie Charles Calama	CTA and Orthopedic Trauma: When Less is More	
410	CS	Nathanael Haynes	Sex-Specific Differences in Intent-to-Treat and Waitlist Mortality After Isolated Lung Transplant: A UNOS Retrospective Cohort Study	
411	CS	Daniel Faraj	A Comparative Study Examining Complication Rates and Long-Term Outcomes Between Anterior and Posterior Fusion for Lumbar Spondylolisthesis: A Single Institutional Experience	
412	CS	Yashvi Vardhan	Emergency Room Utilization and Pregnancy Outcomes in Individuals with Sickle Cell Disease	
413	CS	Malvika Choudhari	Assessing Epidemiologic factors and Complications for Pediatric Orthopaedic Firearm Injuries: A Single Institution Analysis	
414	CS	Numair Attaar	Impact of CMS Coverage Expansion on Carotid Revascularization Outcomes	
415	CS	Amaya Martinez Mesa	Bleeding Management Counseling During Childbirth Hospitalization and Maternal Access to Hygiene Products in the Early Postpartum Period: A Mixed Methods Analysis	
416	CS	Emma Cardwell	Understanding Epilepsy in Individuals with Malan Syndrome	
417	CS	Benjamin Dosan	Prognostic Significance of p16 Positivity in Sinonasal Squamous Cell Carcinoma: A Single-Institution Retrospective Review	Melanoma that are Treated with PD-1 Inhibitors
418	CS	Neha Jain	The Impact of Nurse-Physician Relationships on Emergency Nurses' Moral Distress	
419	CS	Molly Poole	Comparing Temporal Bone Thickness on Computed Tomography and Magnetic Resonance Imaging Modalities	

420	CS	Heba Akhtar	Longitudinal Healthcare Utilization Before and After Rituximab in Pemphigus Patients: A Retrospective Cohort Study
421	CS	Carter Bell	Baseline and LPS-Stimulated Cytokine Profiles Associated with PEG Scores in Chronic Low Back Pain: Analysis from the BEST Trial
422	CS	Nia Brown	Characterizing Patterns of Failure on Trastuzumab-Deruxtecan (T-DXd) among Patients with HER2 Low Metastatic Breast Cancer
423	CS	Rayaan Bashir	Somatic Variants in Epilepsy
424	CS	Teresa Zheng	Real-World Variation in Sinus Rinse Technique and Use Among CRS Patients: A Video and Survey-Based Study
425	CS	Sophia Goldbeck	Impact of Diet and BMI on the Development of Pouchitis in First Year after Ileal Pouch-Anal Anastomosis
426	CS	Aaron Stetcher	Diagnostic Sensitivity and Specificity of Mucosal Involvement Versus Skin Biopsy for Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis
427	CS	Ayesha Syed	Case Series: Four Cases of Small-Bowel Intussusception after Gastric Bypass in Patients Taking Semaglutide or Tirzepatide, with Literature Review
428	CS	Anna Van Dorsten	Evaluation of Environmental Exposures, Disease Severity, Quality of Life, and Olfaction in Chronic Rhinosinusitis
501	CS	Lauren Corliss	Diagnostic Challenges of the Neurofibroma-MPNST Spectrum in Neurofibromatosis Type 1: An Illustrative Case
502	CS	Madison Brna	Just Two May Do: Comparing 2-pin to 3-pin Lateral Constructs as Treatment of Type III Supracondylar Humerus Fractures
503	CS	Lana Prieur	Assessing an AI Medical Scribe's Performance and Clinical Documentation Quality
504	CS	Grace Ribadeneyra	Evaluation of Structural Characteristics of Nanophthalmous and Their Relationship to Glaucoma
505	CS	Cameron Pinkerton	Measuring Patient Preferences for Blood Cancer Treatments and Outcomes: A Systematic Review and Meta-Analysis
506	CS	Joseph Dalola	The Association of GLP-1 Receptor Agonists and Outcomes Following Midfoot Arthrodesis
507	CS	Jennie Nicholson	Effects of Parity on Pain Management Choice and Expected Pain During IUD Insertion
508	CS	Nan Miles	Investigation of the Role of Expected vs. Experienced Pain in Patient Acceptability of IUD Insertion
509	CS	Connor Stevens	Association Between Low Fresh Gas Flow and Intraoperative Temperature Maintenance in Neonates

510	CS	Dhuru Patel	Calcium Overload: A Challenging Case of Presumed Vasoplegia Secondary to Calcium Channel Blocker Toxicity
511	CS	Kaitlyn Hurst	Perioperative Glucocorticoid-Induced Hyperglycemia and Its Impact on Clinical Outcomes in Glioblastoma Patients: A Systematic Review
512	CS	Anna Cassidy	The Impact of Dynamic Light Exposure on Activity Levels in Fibromyalgia Patients and Mediation Analysis of Pain Intensity
513	CS	Yuka Cassidy	Developing a Method for Ultrasound Estimation of Gastric Volume in Patients with Previous Gastric Sleeve
514	CS	Jose Immanuel Illagan	Evaluation of the Effectiveness of Post Type-1 Thyroplasty Voice Therapy
515	CS	Rida Zainab	Genetic evaluation of pediatric pituitary adenomas and USP8-related genotype-phenotype correlations in Cushing's disease
516	CS	Lissa Neira	The Relationship between Axial Length and Severity of Primary Glaucoma
517	CS	Emily Perou	The Impact of Psychological Factors on Outcomes Following Rotator Cuff Repair: A Clinical Commentary
518	CS	Gillian Arleth	Impact of Breast Cancer and Treatment on Long-Term Self-Reported Cognitive Function
519	CS	Nina Westcott	Juvenile Nasopharyngeal Angiofibroma: A case Series
520	CS	Kabir Pathak	Standardized Plasma microRNA Quantification Protocol for Thoracic Aortic Aneurysm Detection
521	CS	James Noh	Current Trends in Asthma Treatment Among Collegiate Athletes
522	CS	Ayaka Uehara	Irritability as a Transdiagnostic Symptom of Distress in a Perinatal Psychiatric Inpatient Setting
523	CS	Hughes Benjamin	Spinal Extraskeletal Osteochondromas: Literature Review and Case Description of the Largest Reported Lesion
524	CS	Morgan Sullivan	Sexual assault survivor acute stress reaction phenotypes are shaped by past life trauma and predict mental and physical health outcomes.
525	CS	Nicholas Mordan	Long-Term Survival in Advanced Esophageal Adenocarcinoma with Palliative Endoscopic Spray Cryotherapy
526	CS	Aidan Spradlin	Assessment of Right Ventricle Function After Transcatheter Tricuspid Valve Replacement (TTVR) Using the EVOQUE Tricuspid Valve Replacement System
527	CS	Leslie Onyeji	Patient-Reported Dietary Habits and Triggers in Hidradenitis Suppurativa

601	CS	Divya Mehta	Identifying Barriers to Diagnosing and Treating Facet Joint-Mediated Back Pain
602	CS	Mark Cordell Jr.	Early Outcomes Post Carotid Baroreceptor Stimulation Device Implantation for Advanced Heart Failure
603	CS	Emma Spitz	Sex Bias in Basic, Translational, and Clinical Research
604	CS	Dhatri Kakarla	Studies on Patients with Cleft Lips and Cleft Palates
605	CS	Kaela Williams	Evaluation of Liver Enzymes in Children with Turner Syndrome
606	CS	Joshua Taylor	Wound Healing in Orthopedic Surgery for People Living with HIV: Physiologic, Surgical, and Social Determinants
607	CS	Timothy Gee	Association Between Area Deprivation Index and Follow-Up Attrition After ACL Reconstruction
608	CS	Melissa Schroder	Stress as Defined by ICU Family Caregivers: A Content Analysis
609	CS	Emma Comadoll	Evaluating a Novel Nomogram in its Ability to Predict Gastrostomy Tube Placement in Head and Neck Cancer Surgery Patients
610	CS	Alexander Tanas	Sport-Specific Burden of Asthma at UNC: Prevalence and Asthmatic Events Across Carolina Athletics
611	CS	Sergey Tsoy	"Evaluating the Risk of Contrast-Induced Nephropathy and Renal Outcomes Following TAVR in Patients with Severe Aortic Stenosis and Stage III/IV Chronic Kidney Disease: A Retrospective Cohort Study
612	CS	Riley Brackin	Geographical and Temporal Trends in Opioid Prescriptions by U.S. Neurosurgeons, 2013-2022: Medicare Part D Analysis
613	CS	Sriram Srinivasan	The Patient Transfer Access Center: Integrating Inflow into Two Level I Academic Trauma Centers
614	CS	Ommar Khawaja	Understanding Pediatric Perceptions and Confidence in Epinephrine Use: A Comparison of Auto-Injectors and Needle-Free Alternatives
615	CS	Aisha Mahmood	Transition Planning and Psychological Outcomes Among Division I Student-Athletes
616	CS	Rishita Chamarthia	A Systematic Review of Stroke Unit Interventions in Low- and Middle-Income Countries
617	CS	Katherine Foster	Investigating the Association Between Vaginal Washing Practices, HPV, and HIV/STI Risk Among Women in Kenya
618	CS	Kainat Aslam	Characterizing Hormone Variability in Perimenopausal Females Leveraging Daily At-Home Hormone Monitoring
			Connecting Families: Optimizing Proxy Access to MyChart for the Inpatient Geriatric Population at a Community Hospital

619	CS	Hyounjun Sim	Post-operative and anesthetic considerations of frailty in older adults
620	CS	Katherine Li	Use of an Angio-Seal Device for CT-Guided Pleurosubcutaneous Fistula Closure: A Case Report
621	CS	Daisy Quach	A Retrospective Analysis of Clinical and Demographic Factors Influencing Tinnitus Management and Outcomes
622	CS	Hayden Vaughn	The efficacy and safety of desipramine, dicyclomine or hyoscyamine in the treatment of irritable pouch syndrome type of symptoms – a retrospective cohort study
623	CS	Zach Sanchez	Randomized, Double-Blind Clinical Trial Comparing Buffered Versus Non-Buffered Lidocaine Trigger Point Injections for Myalgia of the Masticatory and Auxiliary Head and Neck Muscles: Injection Site Pain Outcomes Assessed by Visual Analog Scale
624	CS	Drew Varnell	Shifting Treatment Practices in the Modern Treatment Paradigm of Inflammatory Bowel Diseases and the Potential Effects on Clinical Trial Recruitment
625	CS	Dominic Lal	Children's Perception's of Physicians
626	CS	Chester Tyson	Optimizing Antifungal Therapy for Pediatric Tinea Capitis: A Narrative Review of Species-Specific Efficacy, Dosing Strategies, and Clinical Implications
627	CS	Ife Onasanya	Early Identification of Neural Substrates Underlying Cognitive Impairments Associated with Schizophrenia and other Psychotic Disorders
628	CS	Gurjant Sekhon	Examining the Relationship Between Age and Post-Operative Range of Motion in Patients after Total Knee Arthroplasty
629	CS	Sarah Jones	Cardiovascular Risk Stratification among Transgender Adults on Gender Affirming Hormone Therapy undergoing Perioperative Evaluation for Noncardiac Surgery



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