Annual Progress Report of Academic Output
Medical Student
Clinical Research Study Program

Academic Year: August 2021 - July 2022

Duke Clinical Research Institute
Aderike “Ricky” Anjorin – Duke Population Health Sciences

**Mentor:** Marc Schermerhorn, MD

**Program:** Clinical Research Study Program

**Project Title:** Vascular Surgery Outcomes Research

(Second Research Year)

Kathryn Benson – Duke General Internal Medicine

**Mentor:** Clarissa Diamantidis, MD

**Program:** Clinical Research Study Program

**Project Title:** Racial Differences in Over-the-Counter Non-Steroidal Anti-Inflammatory Drug Use Among Individuals at Risk of Adverse Cardiovascular Events

**Awards/Scholarships:** Eugene A. Stead, Jr. Research Scholarship

**Medical School Contributions:**
- Clinical Skills Course Student Leader
- Medical Student Tutor

**Publications:**

Submitted:

Benson KRK, Diamantidis CJ, Davenport CA, Sandler RS, Boulware LE, Mohottige M. Racial Differences in Over-the-counter Non-steroidal Anti-inflammatory Drug Use Among Individuals at Risk of Adverse Cardiovascular Events.

Presentations/Abstracts:


Mentor: William Eward, MD, DVM

Program: Clinical Research Study Program

Project Title: Is Race an Independent Predictor of 5-Year Overall Survival with Primary Malignant Bone Tumors?

Awards/Scholarships:
- AAFP Family Medicine Leads Scholarship 2022 – Student Primary Care Champion (SPCC)
- North Carolina Academy of Family Physicians (NCAFP) Foundation Scholarship Recipient 2021

Additional Course Work:
- History of Clinical Medicine
- What Would a Good Physician Do?

Publications:


Submitted:


Presentations/Abstracts:

**Mentor:** Lisa McElroy, MD

**Program:** Clinical Research Study Program

**Project Titles:**
- Identifying and Addressing Inequities in Access to Solid Organ Transplantation
- Social determinants of Health Data in Solid Organ Transplantation: National Data Sources and Future Directions
- Social Determinants of Health Data Capture Within National and Health System Data Sources

**Awards/Scholarships:**
- Duke Institute for Health Innovation Clinical Research & Innovation Scholarship
- Robert M. Califf Clinical Research Travel Grant

**Medical School Contributions:**
AOA Taskforce Member, Davison Council Diversity, Equity, and Inclusion Committee Member

**Additional Coursework:** History of Clinical Medicine, Clinical Medical Ethics

**Publications:**


**Chan NW,** McElroy LM. Utilizing Social Determinants of Health Data to Address Racial Disparities in Kidney Transplantation. Submitted April 2022. Under review.


**Poster/Oral Presentations:**


---

**Shivani Chandrashekaran – Duke Pediatrics-Primary Care**

*Mentor:* Sarah Armstrong, MD

*Program:* Clinical Research Study Program

*Presentations/Abstracts:*

The Association Between Neighborhood Quality and Cardiovascular Risk Factors Among Children with Obesity. Duke School of Medicine Medical Student Research Symposium. August 2022. Durham, NC.

---

**Parth Chodavadia – Duke Global Health Institute**

*Mentor:* Eric Finkelstein, MD

*Program:* Clinical Research Study Program

*Project Title:* Using Wireless Technology and Behavioral Economics Incentives to Reduce the Progression of Type 2 Diabetes Mellitus

*Presentations/Abstracts:*

Prevalence and Economic Burden of Depression and Anxiety Among Singaporean Adults: Results from a Web Panel. Duke School of Medicine Medical Student Research Symposium. August 2022. Durham, NC.

---

**Kathy Dai – Duke Cardiology**

*Mentor:* Robert Mentz, MD and Chetna Malhotro, MD (Duke-NUS)

*Program:* Clinical Research Study Program
Project Title(s):
- Hand Grip Strength Predicts Mortality and Quality of Life in Heart Failure: Insights from the Singapore Cohort of Patients with Advanced Heart Failure
- The Last Mile in Healthcare: Bridging the Gap Between Effective Therapies and Clinical Outcomes

Awards/Scholarships:
- Snyderman Moore Scholarship
- Duke-Singapore Scholarship
- Duke University School of Medicine Dean's Merit Scholarship
- Robert M. Califf Clinical Research Travel Grant

Medical School Contributions:
- Duke Third Year Clinical Research Study Program Panel Member
- Student Leader for the Clinical Skills Foundation 2 Course

Additional Course Work:
Duke Innovation & Entrepreneurship Business & Organization Fundamentals

Publications:
In Progress:
Dai KZ, Laber EB, Chen H, Mentz RJ, Malhotra C. Hand Grip Strength Predicts Mortality and Quality of Life in Heart Failure: Insights from the Singapore Cohort of Patients with Advanced Heart Failure. Under review at Journal of Cardiac Failure.

Dai KZ, Snyderman R, O’Connor CM. The Last Mile in Healthcare: Bridging the Gap Between Effective Therapies and Clinical Outcomes. 2022

Presentations/Abstracts:
Dai KZ, Laber EB, Chen H, Mentz RJ, Malhotra C. Hand Grip Strength Predicts Mortality and Quality of Life in Heart Failure: Insights from the Singapore Cohort of Patients with Advanced Heart Failure. Duke University School of Medical Symposium. August 2022. Durham, NC. Platform Presentation


Nicole Diaz – Duke Population Health Sciences

Mentor: Nazema Siddiqui, MD

Program: Clinical Research Study Program

Project Title: Association of Residential Segregation and Ethnic Enclaves with Quality of Care and Survival among Black and Hispanic Ovarian Cancer Patients.

(Continuing Research)
Mentor: Jonathan Routh, MD

Program: Clinical Research Study Program

Project Title: Financial Toxicity Associated with Treatment of Spina Bifida

Awards/Scholarships: Robert M. Califf Clinical Research Travel Grant

Publications:

In Progress:


Submitted:


Presentations/Abstracts:


---

**Darby Herkert – Duke Child and Family Mental Health and Development Neurology**

*Mentor:* Geraldine Dawson, MD

*Program:* Clinical Research Study Program

*Project Titles:*
- Prevalence and Nature of Prior Developmental and Medical Concerns in Toddlers Who Fail an Autism Screener in Primary Care
- Factors Related to Referral, Diagnosis, and Intervention Use for Toddler after A Positive Autism Screen in Primary Care
- Investigation of Prevalence and Types of Vision Concerns in Children at Risk for Autism Before Age 1
- Passive autism detection before age 1 from routine electronic health records

*Awards/Scholarships:*
- Dr. Bernard J Carroll Research Scholarship
- Duke University School of Medicine Dean’s Merit Scholarship

*Publications:*

*Accepted*
Submitted:


In Progress:

Abstract/Posters:
Submitted:
Herkert D, Sullivan C, Zhu Y, Dawson G. Determining and Characterizing the Presence of Prior Concerns in Toddlers Who Fail an Autism Screener in Primary Care (Submitted April 2022 to AAP National Conference).


Abstract/Posters:

Maham Karatela – Duke Cardiology

Mentor(s): Jonathan Piccini, MD

Program: Clinical Research Study Program

Project Title:
- Omnipolar versus Bipolar Electrode Mapping in Patients with Atrial Fibrillation Undergoing Catheter Ablation
- Neurocardiac Axis and Neuromodulation Therapy for Atrial Fibrillation
- Peak Frequency Mapping for Sites of Termination in Atypical Atrial Flutter
- Efficacy and Safety of Adjunctive and Primary Use of the TightRail Mechanical Cutting Sheath for Lead Extraction
- Vertebral Artery Transection with Pseudoaneurysm and Arteriovenous Fistula Requiring Antegrade and Retrograde Embolization
- Safety and Utility of Stress Cardiac Magnetic Resonance Imaging in Patients Presenting to the Emergency Department with Abnormal High-Sensitivity Troponins
**Publications:**


**Submitted:**


**In Progress:**

Sampognaro J, **Karatela M,** Lewis R, Black-Maier E, Pokorney SD, Hegland D, Piccini J. Efficacy and Safety of Adjunctive and Primary Use of the TightRail Mechanical Cutting Sheath for Lead Extraction.


**Karatela M,** Piccini J. Corticosteroids in Atrial Fibrillation.

**Karatela M,** Dowell RS, Friedman D, Thomas KL, Jackson KP, Piccini JP. Peak Frequency Mapping in Low Voltage Zones Can Identify the Critical Isthmus in Atypical Atrial Flutters. In progress for JACC.

**Presentations/Abstracts:**


---

**Samantha Karle – Duke Geriatrics**

**Mentor:** Heather Whitson, MD

**Program:** Clinical Research Study Program

**Project Title:** Independent Sub-study of Physical and Cognitive Resilience in the Elderly Following Total Knee Arthroplasty
Publications:
Submitted:
Psychosocial Measures of Resilience as Predictors for Postoperative Pain Trajectories in Older Adults Following Total Knee Arthroplasty: A PRIME-KNEE Sub-Study American Geriatrics Society 2022.

Presentations/Abstracts:

Psychosocial Resilience Measurements as Predictors for Postoperative Pain in PRIME-KNEE. Duke University School of Medicine Medical School Research Symposium. August 2022. Durham, NC.

Tori Kinamon – Duke Infection Disease (Study Away at FDA)
Mentor: Vance Fowler, MD
Program: Clinical Research Study Program
Project Title: FDA Antibacterial Drug Resistance (DOOR) Fellowship
Awards/Scholarships: Robert M. Califf Clinical Research Travel Grant
(Continuing Research)

Deeksha Malhotra – Duke Sanford School of Public Policy/Duke Center for Child & Family Policy
Mentor: Elizabeth Gifford, MD
Program: Clinical Research Study Program
Project Title: Gulf War Illness: A Gut-Brain Perspective
Awards/Scholarships: Robert M. Califf Clinical Research Travel Grant

Publications:
Submitted:

Presentations/Abstracts:


Luisa Masclans – Duke Internal Medicine

Mentor: James Davis, MD

Program: Clinical Research Study Program

Project Title:
- Access to Effective Smoking Cessation Medications in Patients with Medicare, Medicaid and Private Insurance
- Pilot Study to Assess Low-Dose Varenicline in Patients Who Do Not Tolerate Standard-Dose Varenicline
- Varenicline for Treatment of Light and Intermittent Smokers

Awards/Scholarships: Medical School Faculty Wives Medical Scholarship Fund

Medical School Contributions: Director of Fremont People’s Free Clinic, Member of Duke MedCARES, Volunteer with NC Med-Assist

Additional Coursework: COMMFAM 404C – Fremont Clinic

Publications:
Submitted:
Masclans LM, Davis JM. Access to Effective Smoking Cessation Medications in Patients with Medicare, Medicaid and Private Insurance. (Submitted June 2022)


In Progress:
Davis JM, Masclans LM. Varenicline for Treatment of Light and Intermittent Smokers

Presentations/Abstracts:
Access to Effective Smoking Cessation Medications in Patients with Medicare, Medicaid and Private Insurance. Duke University School of Medicine Medical School Research Symposium. August 2022. Durham, NC.
**Mentor:** Brittany Davidson, MD

**Program:** Clinical Research Study Program

**Project Title:** Malignant Bowel Obstruction in Gynecologic Malignancies: Prognosis and Patient-Centered Management

**Awards/Scholarships:** Kirkpatrick Gynecologic Oncology Scholarship

**Medical School Contributions:** OB/GYN Interest Group Co-President

**Publications:**

**Submitted:**


**In Progress:**


Peters PN, Moyett JM, Wolf S, Troy J, Kamal A, Davidson BA. Symptom Burden and Referral Patterns of Gynecologic Cancer Patients at Initial Palliative Care Consult.

**Presentations/Abstracts:**


**Kira Niederhoffer – Duke Oncology**

*Mentor:* Jeffrey Clark, MD  

*Program:* Clinical Research Study Program  

*Project Title:* A Machine Learning Model to Predict Adverse Events in Patients taking Immune Checkpoint Inhibitors  

*Awards/Scholarships:* DIHI Clinical Research and Innovation Scholarship  

*Additional Coursework:* History of Medicine  

*Publications:*  

**In Progress:**  
A Machine Learning Model to Predict Adverse Events in Patients taking Immune Checkpoint Inhibitors  

Development and Validation of a Data Quality Assurance Framework for Machine Learning in Healthcare  

**Presentations/Abstracts:**  


**Laura Noteware – Duke Oncology**

*Mentor:* Sarah Sammons, MD and Shelley Hwang, MD  

*Program:* Clinical Research Study Program  

*Project Title:*  
- Characterization of Breast Cancer Brain Metastases for Optimization of Therapy  
- Racial Disparities in Presentation of Breast Cancer in Young Women  
- Understanding DCIS Presentation in Young Women  
- The Role of Geography in Women’s Preference for Mastectomy Versus Breast Conserving Surgery in Management of DCIS  

*Awards/Scholarships:*  
- Eugene A. Stead Research Scholarship in 2021
Medical School Contributions:
- Vice President of Service, Duke School of Medicine
- Admissions Recruitment Co-President
- Third Year Medical Student Panel Member
- Health Careers Academy Co-President

Publications Submitted:

In Progress:

Presentations/Abstracts:


**Timothy Ochoa – Duke Cardiovascular and Thoracic**

**Mentor:** Matthew Hartwig, MD and Cara O’Brien, MD

**Program:** Clinical Research Study Program

**Project Title:**
- Development of a Machine Learning Model for Prediction of Mortality in Lung Transplant Patients
- Sepsis Watch: The Implementation of a Duke-Specific Early Warning System for Sepsis

**Additional Coursework:**
Global Health: Exploring Medicine in Honduras + Medical Brigade Trip to Honduras

**Publications:**

**Submitted:**

**Presentations/Abstracts:**

**Chinedu Okafor – Duke Orthopedics**

**Mentor:** Oke Anakweneze, MD

**Program:** Clinical Research Study Program

**Publications:**

**Submitted:**
Pain Associated Psychological Distress in more Strongly Associated with Shoulder Pain and Function than Tear Severity in Patients Undergoing Rotator Cuff Repair.
**Jerishma Patel – Duke Cardiology**

*Mentor:* Monique Starks, MD  

*Program:* Clinical Research Study Program  

*Project Title:* Missed Opportunities for Treatment: Proximity of Static AEDs to Historical Cardiac Arrests in High-Incidence Neighborhoods  

*Medical School Contributions:* Clinical Skills Foundations Student Leader  

*Additional Coursework:* Continuity Clinic  

*Publications:*  

**In Progress:**  

**Submitted Abstracts:**  


---

**Khaila Collier-Ramey – Duke Maternal/Fetal Medicine**

*Mentor:* Sarahn Wheeler, MD  

*Program:* Clinical Research Study Program  

*Project Title:* Prenatal Care Engagement Among Birthing Individuals with History of Preterm Birth in the Pre- and Post-COVID Era  

*Awards/Scholarships:*  
Infectious Disease Society for Obstetrics and Gynecology (IDSOG) Scholar (2021)  

*Publications:*  
Wheeler SM, Jackson M, Massengale KEC, Ramey-Collier K, Østbye T, Corneli A, Bosworth HB, Swamy GK. Engaging the Community to Reduce Preterm Birth via Adherence to an


Submitted:


In Progress:


Presentations/Abstracts:
Oral Presentations:

**Poster Presentations:**


---

**Camille Robinson – Duke Advanced Oncologic and GI Surgery**

**Mentor:** Paul Mosca, MD

**Program:** Clinical Research Study Program

**Presentations/Abstracts:**

---

**Marguerite Rooney – Duke Surgical Oncology**

**Mentor:** Jennifer Plichta, MD

**Program:** Clinical Research Study Program

**Project Title:**
- The Role of Tumor Phenotype in the Surgical Treatment of Early-Stage Breast Cancer
- Racial and Ethnic Disparities in Survival Outcomes of Patients with Metastatic Breast Cancer
- Defining Realistic Expectations for BRCA1/2 Patients Based on Management Strategy

**Awards/Scholarships:** The Breast Life in BRCA and Beyond

**Publications:**
**Submitted:**


In Progress:

Presentations/Abstracts:


Lindsay Schlichte – Duke Hematological Malignancies

Mentor: Thomas Leblanc, MD

Program: Clinical Research Study Program

Project Title:
- Awareness and Knowledge of Palliative Care Among Patients with Cancer
- Assessing the Goals of Care Documentation for Patients at High Risk of 30-day Mortality on Hospital Medicine Services
- Open Notes: A Qualitative Study of Patients Reading their Clinician Notes in Oncology

Awards/Scholarships: 2022-2023 Snyderman/Moore Scholarship

Medical School Contributions: Davison Council Class Representative, Clinical Skills Foundation I Student Leader, Feagin Leadership Program Scholar

Additional Coursework: Clinical Medical Ethics: What Would a Good Physician Do?
Connie Scoggins – Duke Dermatology

Mentor: Meenal Kheterpal, MD

Program: Clinical Research Study Program

Project Title: Use of Artificial Intelligence to Improve Stratification of Dermatologic Images in Primary Care Practice and Teledermatology

(Continuing Research)

Rebecca Shen – Duke Cardiology

Mentor: Schuyler Jones, MD

Program: Clinical Research Study Program

Project Title:
- Improving Equity and Value of Peripheral Artery Disease Care at a Population Level
- Internet vs. Non-Internet Participation in a Decentralized Clinical Trial: Lessons from the ADAPTABLE Study
- Diagnosis and Management in Observational Opioid Use Disorder Simulation
- Algorithm Development for Duke Emergency Pre-Hospital Capacity Management

Awards/Scholarships: Duke Institute for Health Innovation Scholar

Additional Coursework: Physiology and Medicine of Extreme Environments

Publications:

In Progress:

Presentations/Abstracts:


Michael Wang – Study Away, Prima Health, SC

Mentor: Jonathan Markowitz, MD

Program: Clinical Research Study Program

Project Title: Investigation of the Utility of Follow-up Gastroduodenal Biopsies in Esophagus-Limited Eosinophilic Esophagitis

Awards/Scholarships: Robert M. Califf Clinical Research Travel Grant

(Second Research Year)

Natalie Wickenheisser – Duke Gynecology Oncology

Mentor: Laura Havrilesky, MD

Program: Clinical Research Study Program

Project Title(s):
- Associations Between the COVID-19 Pandemic, Substage at Diagnosis, and Radical Hysterectomy Case Volume for Treatment of Early-Stage Cervical Cancer
- The Impact of Virtual Grand Rounds on Trainee and Faculty Attendance
- Assessing Differences in Postoperative Sequential Compression Device (SCD) Adherence in Post-Operative Patients
- Standardizing the Use and Reporting of the Sectioning and Extensively Examining the Fimbriated End (SEE-FIM) Protocol at Duke University Hospital
- Use of Monoclonal Antibody Therapy During Pregnancy and Implementation of Use During the COVID-19 Pandemic
- Understanding the needs and perspectives of ovarian cancer patients when considering PARP inhibitor maintenance therapy: Findings from two online community events

Awards/Scholarships:
- Poster Award, 3rd Place, The 2022 North Carolina Obstetrical and Gynecologic Society Annual Meeting, Kiawah Island, SC
- Recipient of the Gynecologic Oncology Research Scholarship, 2021, Division of Gynecologic Oncology, Duke Cancer Center, Durham, NC

Medical School Contributions:
Clinical Skills Class Student Facilitator, OB/GYN Clerkship Teaching Assistant
**Publications:**

**Submitted:**


**In Progress:**


**Presentations/Abstracts:**

**Poster Presentations:**


**Oral Presentation:**

Linda Guevara Zambrano – Duke Gynecology Oncology

**Mentor:** Haley Moss, MD

**Program:** Clinical Research Study Program

**Project Title:** Understanding Geographic Variations in Ovarian Cancer Care Based On Location of Medicaid Enrollment

**Presentations/Abstracts:**

Michael Zimmerman – Duke FMCH Research and Education

**Mentor:** Katelyn Holliday, MD

**Program:** Clinical Research Study Program

**Project Title:** Women’s Physical Activity Patterns in the Community

**Presentations/Abstracts:**