Duke Internal Medicine Residency Program

Resident Research Showcase 2019

Friday, May 3
7:00 a.m. – 9:00 a.m.

Medicine Grand Rounds
Trent Semans Center for Health Education
Resident Research Showcase 2019

Agenda

7:00-8:00 am  Poster Viewing Session

8:00-8:45 am  Research Presentations

Jordan M. Gales, MD  PGY-2
Mentor: Richard A. Krasuski, MD
*Emergency room evaluation of chest pain in adult congenital heart disease patients: Etiology, resource utilization, and outcomes compared with matched controls*

Michael J. Grant, MD  PGY-3
Mentor: Mitchell Horwitz, MD
*Treatment with foscarnet after allogeneic hematopoietic cell transplant is associated with long-term loss of renal function*

Benjamin L. Ranard, MD, MSHP  PGY-3
Mentor: Kevin P. Shah, MD, MBA
*You get what you pay for: an analysis of pay-for-performance in multi-site, academic primary care practice*

8:45-9:00 am  Award Presentations

Robert M. Califf, MD, Medicine Resident Research Awards
*“Clinical research provides the connection between scientific discoveries and helping our fellow human beings”* –Robert M. Califf, MD

Poster Awards for Clinical Research and QI Projects

Department of Medicine Best Grand Rounds Awards

Joseph C. Greenfield, Jr., MD, Research Mentorship Award
*To be awarded to S. Nicki Hastings, MD, at Medicine Grand Rounds on June 7*
**Poster Session – List of Presenters**

**A systematic review of randomized and non-randomized trials comparing dual therapy with triple therapy in patients with atrial fibrillation undergoing percutaneous coronary intervention**
Presentor: Alexander Sullivan – Mentors: Sunil Rao and David Kong

**Redefining high risk: Examining intermediate risk pulmonary embolism and healthcare utilization**
Presentor: Alexander Sullivan – Mentor: W. Schuyler Jones

**Contemporary treatment and outcomes of acute pulmonary embolism: A single large academic center’s perspective**
Presentor: Alexander Sullivan – Mentor: W. Schuyler Jones

**Movement disorder and small fiber neuropathy secondary to atezolizumab**
Presentor: Alexandria Mara – Mentor: Jason Webb

**Atypical presentation of cutaneous polyarteritis nodosa treated with cyclosporine**
Presentor: Alexandria Mara

**Patients with diabetes and peripheral artery disease: Results from EXSCEL trial**
Presentor: Anish Badjatiya – Mentor: W. Schuyler Jones

**Rituximab induced progressive multifocal leukoencephalopathy (PML): a rare complication of a common medication**
Presentor: Anmol Singh

**Seizures or syphilis? An uncommon presentation of a common disease**
Presentor: Anmol Singh

**Fibrosing mediastinitis turned thymolipoma turned nodular sclerosis hodgkin lymphoma**
Presentor: Anmol Singh

**The Relationship between emotional distress and understanding of prognosis in patients with acute myeloid leukemia (AML)**
Presentor: Anmol Singh – Mentor: Amit Patel

**Esophageal baseline impedance from high resolution impedance manometry (BI-HRIM) correlates with mean nocturnal baseline impedance (MNBI) regardless of manometry manufacturer**
Presentor: Anthony Horton – Mentor: Amit Patel

**You get what you pay for: An analysis of pay for performance results in a large multi-site academic primary care practice**
Presentor: Benjamin Ranard – Mentor: Kevin Shah

**Prevention of delirium in hospitalized older adults with eye masks and earplugs worn at night: A pilot study**
Presentor: Bryan Golubski – Mentor: Juliessa Pavon

**Metastatic squamous cell caranoma of unkown primary presenting pancreatitis**
Presentor: Chidiebube Egwim – Mentor: Amber Bowman

**Antiretroviral switches and direct-acting antivirals in HIV/HCV co-infection**
Presentor: Diana Mosquera – Mentor: Julius Wilder

**What the gel: An unusual presentation of acute digital ischemia**
Presentor: Erin Frost – Mentor: Aubrey Jolly Graham

**Prognostic value of late gadolinium enhancement on cardiac MRI in patients with ischemic cardiomyopathy: A systematic review**
Presentor: Godefroy Chery – Mentor: Sna Al-Khatib

**Hepatitis B virologic failure to tenofovir-based therapies in patients with HIV/HBV**
Presentor: Helen Zhang – Mentor: Susanna Naggie
Poster Session – List of Presenters

The power of a strong handshake: Association of hand grip strength and cognitive function in older adults
Presenter: James Deardorff

Blood-based genomic profiling of cell free DNA (cfDNA) to identify microsatellite instability (MSI-H), tumor mutational burden (TMB) and Wnt/B-catenin pathway alterations in patients with gastrointestinal (GI) tract cancers
Presenter: James Isaacs – Mentor: John Strickler

When sugar isn’t sweet enough: A rare case of metastatic insulinoma
Presenter: Jeremy Brooksbank – Mentor: John Roberts

The impact of age on the relationships of comorbidities with outcomes in heart failure with reduced ejection fraction
Presenter: Jessica Regan – Mentor: Rob Mentz

Goals of care documentation in the MICU
Presenter: Jessie Gu – Mentor: Anthony Galanos

Chronic hypersensitivity pneumonitis in the Southeastern United States
Presenter: Jessie Gu – Mentor: Yuh-Chin T. Huang

Pulmonary tumor micro-embolism: Merging old and new diagnostic tools
Presenter: Jessie Gu – Mentor: Charles W. Hargett

A unique acylcarnitine profile is independently associated with diabetic heart failure and associates with adverse clinical outcomes: Insights from the FIGHT trial
Presenter: Joseph Lerman – Mentors: Svati Shah and Robert McGarrah

Patient demographics and clinical presentations of hyperglycemic emergencies
Presenters: Kathryn Hutchins and Tamara Saint-Surin – Mentor: Dave D’Alessio

Strategies for improving the care of patients hospitalized with heart failure: Baseline data from the CONNECT-HF trial
Presenter: Kent Feng – Mentor: Adam DeVore

Clinical practice and outcomes with cardioversion in the NOAC-Era: Insights from ORBIT-AF
Presenter: Kyle Geurink – Mentor: Sean Pokorney

Fulminant liver failure: A startling presentation of hairy cell leukemia
Presenters: Lauren Donnangelo and Tsion Aberra – Mentors: Murat Arcasoy and Bill Hargett

Resource-stratified diagnostics in India: Current practices an aspirations for a national standard
Presenter: Manisha Bhattacharya – Mentors: Yousuf Zafar and Nelson Chao

Characterization of tumor mutational burden (TMB), PD-L1, and DNA repair genes to assess correlation with immune checkpoint inhibitors (ICIs) response in metastatic renal cell carcinoma (mRCC)
Presenter: Matthew Labriola – Mentor: Tian Zhang

Characterization of genomic alterations as biomarkers of immune checkpoint inhibitor (ICI) response in metastatic urothelial carcinoma (mUC)
Presenter: Matthew Labriola – Mentor: Tian Zhang

Pembrolizumab in men with heavily treated metastatic castrate resistant prostate cancer
Presenter: Matthew Tucker – Mentor: Andrew Armstrong

Synchronous presentation of small cell lung cancer and acute myeloid leukemia
Presenter: Matthew Tucker – Mentor: Andrew Armstrong

Treatment with foscarnet after allogeneic hematopoietic cell transplant (AlloHCT) is associated with long-term loss of renal function
Presenter: Michael Grant – Mentor: Mitch Horwitz
2019 Faculty-Resident Research Grant Recipients

Colorectal cancer screening quality improvement at DOC
Diana Mosquera Aguirre, PGY-2 – Mentor: Azalea Kim

Beta-blocker and ACE-inhibitor dosing as a function of body surface area: Insights from HF-ACTION
Jeremy Brooksbank, PGY-2 – Mentor: Robert Mentz

Hypophosphatemia as predictor of clinical outcomes in acute pancreatitis: prospective study
Kimberly Cocce, PGY-1 – Mentor: Rodger Liddle

Outcomes after HCV treatment in the setting of alcohol use
Lauren Donnangelo, PGY-2 – Mentor: Cynthia A. Moylan

NGS mutational pattern in veterans with NSCLC and response to PD-1 inhibitors
Christopher Ferreri, PGY-2 – Mentor: Michael Kelley

Real world analysis of next generation sequencing data impact upon targeted therapy utilization
Jordan Gales, PGY-2 – Mentor: Matthew McKinney

Acute MI in persons living with HIV: Does gender make an impact? A meta-analysis
Keva Garg, PGY-2 – Mentor: Pamela Douglas
2019 Faculty-Resident Research Grant Recipients

Evaluating use of high cardiovascular risk ARTs in persons living with HIV
Keva Garg, PGY-2 – Mentor: Lance Okeke

Electrophysiological assessment of lesion formation in pulmonary vein isolation
Tanmay Gokhale, PGY-1 – Mentor: Jonathan Piccini

Association between molecular markers in Barrett’s esophagus with endoscopic eradication
Bryan Golubski, PGY-2 – Mentor: Katherine Garman

Analysis of novel esophageal function metrics in gastroesophageal reflux disease
Anthony Horton, PGY-2 – Mentor: Amit Patel

Impact of financial toxicity on outcomes associated with allogeneic hematopoietic cell transplantation
Syed Hussaini, PGY-2 – Mentors: Anthony Sung and Yousuf Zafar

The association of shock burden with survival in patients with implantable cardioverter defibrillators.
Nicholas Kamp, PGY-2 – Mentor: Sana Al-Khatib

Tumor mutational burden as a marker of clinical response in non-small cell lung cancer
Chester Kao, PGY-1 – Mentor: Tian Zhang

Clinical and implantable cardiac device characteristics of cardiac amyloidosis
Payton Kendsersky, PGY-1 – Mentor: Michel Khouri

Carboxyhemoglobin as Predictor of Poor Outcome for Patients with ARDS on ECMO
Govind Krishnan, PGY-3 – Mentor: Bryan D. Kraft

Incidence and risk factors for CRE colonization and subsequent CRE Infection
Cassandra Lautredou, PGY-1 – Mentors: Becky A. Smith and Sarah Lewis

Hypophosphatemia as a predictor of clinical outcomes in acute pancreatitis, a retrospective cohort study
Joshua Lee, PGY-2 – Mentor: Rodger Liddle

How the 2017 ACC/AHA blood pressure goals affect the development of heart failure
Juliette Logan, PGY-2 – Mentor: Robert Mentz

Prevalence of pathogenic germline variants in DNA repair in prostate cancer
Alexandria Mara, PGY-2 – Mentor: Andrew Armstrong

Evaluation and outcomes of men who received germline testing for prostate cancer
Alexandria Mara, PGY-2 – Mentor: Andrew Armstrong

Voriconazole use at Duke University Medical Center
Ahmad Mourad, PGY-1 – Mentor: John Perfect

Urine Streptococcus & Legionella antigen use at Duke University Medical Center
Ahmad Mourad, PGY-1 – Mentor: Brian Griffith

The impact of diabetes on outcomes following peripheral vascular intervention
Dennis Narcisse, PGY-2 – Mentor: W. Schuyler Jones

Tumor mutational burden associated with clinical response to immune checkpoint inhibitor therapy
Eric Powers, PGY-1 – Mentor: Tian Zhang

Attitudes, knowledge, and prescribing practices for pre-exposure prophylaxis amongst Internal Medicine residents and the effectiveness of an educational intervention.
Tamara Saint-Surin, PGY-2 – Mentor: Mehri McKellar
2019 Faculty-Resident Research Grant Recipients

Disparities between African-American and caucasian patients admitted for acute pulmonary embolism: A retrospective cohort analysis of the DUHS Deduce database
Alexander Sullivan, PGY-2 – Mentor: W. Schuyler Jones

Examining ECG findings in pulmonary embolism: Experience from a large contemporary cohort
Alexander Sullivan, PGY-2 – Mentor: W. Schuyler Jones

Examining intermediate risk pulmonary embolism and healthcare utilization: Using the European Society of Cardiology guideline definitions
Alexander Sullivan, PGY-2 – Mentor: W. Schuyler Jones

Hospital costs of acute pulmonary embolism: A retrospective cohort analysis from a large, academic health system
Alexander Sullivan, PGY-2 – Mentor: W. Schuyler Jones

Adverse cardiovascular events in diabetics with univascular versus polyvascular disease: A secondary analysis of the HARMONY
Trent Wei, PGY-1 – Mentor: W. Schuyler Jones

Clinical characteristics and genetics of Klebsiella aerogenes versus Enterobacter bacteremia
Austin Wesevich, PGY-2 – Mentor: Joshua Thaden

Point prevalence survey of outpatient antibiotic prescriptions in southern Sri Lanka
Helen Zhang, PGY-3 – Mentor: L. Gayani Tillekeratne

2018-2019 Stead Resident Research Grant Recipients

Role of sensory and cognitive impairments in Medicare utilization and costs
James Deardorff, PGY-2 – Mentor: Heather Whitson

Emergency Department assessment of acute chest pain among adult congenital heart disease patients
Jordan Gales, PGY-2 – Mentor: Richard Krasuski

Atrial myopathy and arrhythmias in cardiac amyloidosis
Kyle Geurink, PGY-2 – Mentor: Michel Khouri

Characteristics, treatment, and hospital utilization of patients admitted with pulmonary embolism
Tara Holder, PGY-3 – Mentor: W. Schuyler Jones

EMR-based marker for predicting financial toxicity in a cohort of patients at a large academic center
Syed Hussaini, PGY-2 – Mentor: David Casarett

Management of massive and submassive pulmonary embolism: A prospective registry within the Duke University Hospital System
Alexander Sullivan, PGY-2 – Mentor: W. Schuyler Jones

Kidney zone: Promoting medical school engagement in nephrology through the use of social media
Lena Vaynberg, PGY-1 – Mentor: Matthew Sparks

Predictors of NAFLD development and progression in veterans after successful treatment of chronic HCV
Nancy Yang, PGY-2 – Mentor: Cynthia Moylan

Esophageal and gastric motility effects on patient outcomes after lung Transplantation
Nancy Yang, PGY-2 – Mentor: David Leiman

Persistent liver enzyme elevation after HCV virologic cure in HIV/HCV co-infection
Helen Zhang, PGY-3 – Mentor: Susanna Naggie
The Robert M. Califf, MD, Medicine Resident Research Award recognizes and honors Internal Medicine residents for excellence in research.

The Joseph C. Greenfield Jr., MD, Research Mentorship Award recognizes and honors Internal Medicine faculty who have devoted their time and talents to mentor house staff in clinical research and scholarship.

The Stead Resident Research Grants and Faculty Resident Research Grants provide funding for Internal Medicine residents to develop their skills in clinical or laboratory-based research, to carry out research projects, to present their research findings at scientific meetings, and to publish their work.

The Department of Medicine is grateful to the donors who make these awards and grants possible. To learn more or make a gift, visit medicine.duke.edu/giving.