



25TH ANNUAL
Department of Internal Medicine

RESEARCH SYMPOSIUM

MAY 11 - 12, 2017



MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

KEYNOTE SPEAKER

Elizabeth M. McNally, MD, PhD

*Elizabeth J. Ward Professor of Genetic Medicine and Biochemistry and Molecular Genetics,
Director, Center for Genetic Medicine
Northwestern University Feinberg School of Medicine*



Dr. McNally is a cardiologist and geneticist who works with patients and families to define genetic risks for inherited cardiovascular disorders. She joined Northwestern University in September 2014 as director of the Center for Genetic Medicine (CGM), a center that provides support to the

genetic missions across Northwestern University and its affiliated clinical programs and schools.

Dr. McNally was born and raised in Chicago. She attended Barnard College of Columbia University in New York, earning her Bachelor of Arts in Biology and Philosophy. She then completed the Medical Scientist Training Program at Albert Einstein College of Medicine, earning both medical and doctorate degrees graduating with Alpha Omega Alpha honors. As a graduate student, she determined the first full length sequences for alpha and beta myosin heavy chain, developing a keen appreciation for how single nucleotide changes confer functional differences for the heart. Dr. McNally trained in internal medicine and cardiovascular medicine at Brigham and Women's Hospital where she was a clinical fellow at Harvard Medical School. She completed postdoctoral training in human genetics at Children's Hospital in Boston sponsored by the Howard Hughes Medical Institute. Dr. McNally joined the faculty at the University of Chicago starting her own laboratory in 1996.

Dr. McNally's research bridges human and model system genetics. Her laboratory created the first genetically engineered model of cardiomyopathy and muscular dystrophy. Her laboratory has pioneered methods to identify genetic modifiers. Her group has devised new methods for surveying human genetic data having pioneered the use of supercomputing for evaluating entire human genomes efficiently and accurately. Current efforts are directed at defining mutations, generating cell based models of human disease using induced pluripotent stem cells and testing molecular correction approaches.

Dr. McNally's research has been supported by the NIH, the Department of Defense, and private foundations. She was president of the American Society for Clinical Investigation from 2011-2012. Dr. McNally has been recognized as a Distinguished Clinical Scientist by the Doris Duke Charitable Foundation and received the Basic Science Prize from the American Heart Association in 2016.

THURSDAY, MAY 11, 2017

Towsley Lobby

1:00-1:30 pm Hors d'oeuvres Buffet
1:30-5:00 pm Poster Presentations (see below)

Resident Research Symposium

POSTER PRESENTATIONS - Towsley Lobby, 1:30-5:00 pm

Poster #	Abstract Title	Presenter
R-1	Posaconazole Prophylaxis in Immunocompromised Patients	Caroline Berglund
R-2	University of Michigan Institutional Guideline for Treatment of Diabetic Foot infections in Hospitalized Adults	Stephanie Burdick
R-3	Assessing Risk of Body Art in Immunocompromised Versus Immunocompetent Patients	Adrienne Carey
R-4	Preparing Educators	Daniel Cronin
R-5	Kommerell Diverticulum Across the Ages	Benjamin Hale
R-6	A Retrospective Comparative Outcome Analysis Following Systemic Therapy in Mycosis Fungoides and Sezary Syndrome	Walter Hanel
R-7	Safety and Change in Management of Surveillance Versus Clinically Indicated Bronchoscopy in Lung Transplant Recipients	Zachary Haupt
R-8	ATR-101 as Add-on Therapy for the Treatment of Congenital Adrenal Hyperplasia	Xin He
R-9	Use of Physiological Assessment with Prior Stress Testing and Fractional Flow Reserve in Elderly Patients Undergoing Elective Percutaneous Coronary Intervention	Timothy Joseph
R-10	The Impact of Cytogenetics on Survival in Myelofibrosis Patients on Janus Kinase 2 Inhibitors	Vincent Ma
R-11	Recurrent Idiopathic Pericarditis	Jacqueline Madison
R-12	Blood Pressure Response as Sudden Death Risk Factor in Hypertrophic Cardiomyopathy Patients	Ryan McGrath
R-13	Non-Alcoholic Fatty Liver Disease and the Gut Microbiome	Brian Nadeau

THURSDAY, MAY 11, 2017

Resident Research Symposium

POSTER PRESENTATIONS - Towsley Lobby, 1:30-5:00 pm

Poster #	Abstract Title	Presenter
R-14	Perceptions of Resident Autonomy in Pediatric Training	Claire Northway
R-15	New Onset Functional Gastrointestinal Disorders Following Fecal Microbiota Transplant for Recurrent Clostridium Difficile Infection—Prevalence and Risk Factors	Scott Roberts
R-16	Frequency and Work Up of Indeterminate Nodules During Surveillance for Hepatocellular Carcinoma in Patients with Cirrhosis	Aashesh Verma
R-17	Resident Physicians' Access to Primary Care – What is Their Burden of Chronic Illness and How Does it Relate to Their Personal Healthcare Practices? A Survey-Based Study	Karina Whelan
R-18	Clinical Impact of Biofire GI Panel in the Diagnosis of Stool Pathogens in Immunocompromised Patients	Megan Wilde

FRIDAY, MAY 12, 2017

Ford Lobby

9:00 am **CONTINENTAL BREAKFAST /
PLENARY POSTER SESSION**

Ford Auditorium

10:00 **WELCOME AND OPENING REMARKS**

*John Carethers, MD, MACP
Benjamin Margolis, MD*

10:05 **PLENARY SPEAKER SESSION**

**Hypoxia Inducible Factor 2 Alpha is a Negative Regulator of
Osteoblastogenesis**

Christophe Merceron, PhD, Metabolism, Endocrinology & Diabetes

**Fibroblastic Stromal Cells in Spleen and Lymph Nodes Drive T Cell
Immunity Through Provision of Notch Ligands in Graft-Versus-Host-
Disease and Beyond**

Eric Perkey, BS, Hematology/Oncology

**Replacing the Polymerase Chain Reaction: A New Technology for
the Direct, Specific Detection of Unamplified Biomarkers**

Alexander Johnson-Buck, PhD, Hematology/Oncology

**Nuclear-to-cytosolic Shuttling of the DNA Mismatch Repair Protein
MSH3 Requires Posttranslational Modification and Interacts with an
Inflammation-related Cytosolic Complex**

Stephanie Tseng-Rogenski, PhD, Gastroenterology & Hepatology

**Truncating Mutations in Cardiac Myosin Binding Protein C Exhibit
Loss of Function and Early Cellular Hypertrophy in Isogenic iPSC
Models of Hypertrophic Cardiomyopathy**

Adam Helms, MD, Cardiovascular Medicine

**Validation of a Tool Predicting Complications on Cross-Sectional
Imaging Among Young Inpatients with Crohn's Disease**

Jeffrey Berinstein, MD, Senior Medical Resident

**Large-Scale Variability in Inpatient Tacrolimus Therapeutic Drug
Monitoring at an Academic Transplant Center**

Garth Strohbehn, MD, Senior Medical Resident

**The Effect of MP3 Player-Delivered Guided Imagery on Symptoms in
Hospitalized Patients**

Joshua Dowd, MD, Senior Medical Resident

**A Whole Genome CRISPR Screen Identifies an ER Cargo Receptor
for PCSK9 Secretion**

Brian Emmer, MD, PhD, General Medicine

12:00 pm **KEYNOTE ADDRESS - GRAND ROUNDS**

Cardiovascular Genetics and Personalized Medicine

Elizabeth M. McNally, MD, PhD

Elizabeth J. Ward Professor of Genetic Medicine
and Biochemistry and Molecular Genetics
Director, Center for Genetic Medicine
Northwestern University Feinberg School of Medicine

Towsley Lobby

1:00 **LUNCH / POSTER SESSION**

FRIDAY, MAY 12, 2017

Towsley Dining Room / Sheldon Auditorium

2:30 **RESIDENT ORAL COMMUNICATIONS**

Towsley Dining Room

The Impact of Tobacco Use on Peripheral Vascular Intervention Indications and Outcomes: Observations from Blue Cross Blue Shield of Michigan Cardiovascular Consortium (BMC2)
Russell Dolan, MD

Identifying Adverse Effects of Intensive Care Unit Admission for Patients Without Critical Illness
Albert Emery, MD

Catheter Types and Operators at Higher Risk for Central Line Associate Bloodstream Infections in the ICU
Kevin Ho, MD

Electronic Medical Record Sign Out Tool Improvement Project
Kate Levy, MD

Quantification of Right Ventricular Ejection Fraction Using PET
Krissy Mikhova, MD

The Absolute Lymphocyte Count to Absolute Monocyte Count Ratio Predicts Event-Free Survival and Identifies High-Risk Patients in Diffuse Large B-Cell Lymphoma
Pradeep Poonnen, MD

Inhibition of Axl Signaling By BGB324 Reduces Fibrogenesis In Human Intestinal Cells and Human Intestinal Organoids
Calen Steiner, MD

Sheldon Auditorium

PSOAS Muscle Density is Associated with Mortality in Patients Referred for but not Undergoing Transcatheter Aortic Valve Replacement
Edward Cheng, MD

Does an Electronic Medical Record-Based Decision-Support Intervention Improve the Appropriateness of Transthoracic Echocardiogram Orders?
John Herald, MD

Long-Term Outcomes and Implantable Cardioverter Defibrillator use in Peripartum Cardiomyopathy
Madeline Mahowald, MD

Utilization of Finger-Stick Glucose Testing in Individuals With Type 2 Diabetes not Using insulin
Kevin Platt, MD

Practice Variability in Management of Pneumonia in Adolescents and Young Adults
William Rearick, MD

The Lung Microbiome is Enriched with Gut Bacteria in a Sterile Model of Sepsis
Sandeep Segar, MD

5:00 **RESEARCH SYMPOSIUM ADJOURNS**

Plenary Poster Session - Ford Lobby, 9:00 - 10:00 am

Poster #	Plenary Poster Session	Presenter
P-1	Assessment of Left Atrial Fibrosis Using FDG-PET in Patients With and Without AF	<i>Ashraf H. Saleh, MD Senior Medical Resident</i>
P-2	Vesicular suppressor of cytokine signaling 3 secreted by alveolar macrophages dampens asthma-related inflammation in airway epithelial cells	<i>Christina Draijer, PhD Pulmonary & Critical Care Medicine</i>
P-3	Experiences with Novel Health Risk Assessments Among Medicaid Expansion Enrollees in Michigan	<i>Eunice Zhang, MD Senior Medical Resident</i>
P-4	Platelet-To-Albumin Ratio is a Predictor of Colectomy Within 90 Days in Patients Hospitalized for Severe Ulcerative Colitis	<i>Joshua A. Turkeltaub, MD Senior Medical Resident</i>
P-5	Endothelial CD39 induction by pathologic patterns of vascular cyclic stretch.	<i>Vinita Yadav, PhD Cardiovascular Medicine</i>
P-6	Fucosyltransferase-1 is Critical to Macrophage-Driven Myofibroblast Differentiation in Systemic Sclerosis and Bleomycin-induced Fibrosis	<i>Alex Stinson, BSc Rheumatology</i>
P-7	Why selectivity matters for histone deacetylase inhibitors: Differential effects on HIV replication by non-selective and class 1-specific histone deacetylase inhibitors	<i>Thomas Zaikos Infectious Diseases</i>
P-8	Aging enhances atrial fibrillation inducibility in atherosclerotic hosts	<i>Daniel Tyrrell, PhD Cardiovascular Medicine</i>
P-9	Targeting GATA-3 in T-cell lymphomas: A novel therapeutic strategy to overcome chemotherapy resistance	<i>Pinki Chowdhury, PhD Hematology/Oncology</i>
P-10	Introducing PEARL: Pathway Exploration and Analysis in Renal disease in the Accelerating Medicine Partnership (AMP) lupus network	<i>Celine Berthier, PhD Nephrology</i>
P-11	Health Behaviors Predicts Cardiovascular Risk Profile in Middle-School Children	<i>Rosa de Visser, MS Cardiovascular Medicine</i>
P-12	Clinical and Genetic Profiles for Spontaneous Coronary Artery Dissection in Patients with Thoracic Aortopathies	<i>Hannah Hill, BS Cardiovascular Medicine</i>

DEPARTMENT OF INTERNAL MEDICINE
25TH ANNUAL RESEARCH SYMPOSIUM

Poster Session - Towsley Lobby, 1:00-2:00 pm

Poster #	Poster Title	Presenter
20	Application of 3-D culture as a model of in vivo adipose tissue for adipogenic and metabolic function analysis	Takeshi Akama, PhD MEND
21	Modeling the tumor invasion front using 3D fluidic tumoroid culture of cancer cells	Koh Meng Aw Yong, PhD Hematology/Oncology
22	Out of Range INR Results Lead to Increased Health Care Utilization in Four Large Anticoagulation Clinics	<i>Geoffrey Barnes, MD</i> Cardiovascular Medicine
23	The Effects of Inhaled Glucocorticosteroids on Gammaproteobacteria	Lesla Begley, MS Pulmonary & Critical Care Medicine
24	Lessons Learned from the Bridging the Discharge Gap Effectively (BRIDGE) Registry	Morgan Bradford Cardiovascular Medicine
25	Single Site Lifestyle Survey in Fibromuscular Dysplasia Patients Suggests Improvement Over Time	Sherry Bumpus, PhD Cardiovascular Medicine
26	Intra-diaphragmatic adiposity and fibrosis as novel contributors to obesity-induced respiratory dysfunction	Eric Buras, MD, PhD MEND
27	A Novel Approach to Infection Control Surveillance in Nursing Homes: Environmental Panels as a Proxy for Resident MRSA and VRE colonization	Marco Cassone, MD, PhD Geriatric & Palliative Medicine
28	Systematic review and meta-regressions: Medical or dietary management of eosinophilic esophagitis requires histologic assessment	Joy Chang, MD Gastroenterology & Hepatology
29	Role of Defensins in the Pathogenesis of Lung Injury and Fibrosis	Ellyse Cipolla, BS Pulmonary & Critical Care Medicine
30	In-Hospital Outcomes for Type A Acute Aortic Dissection Patients Presenting With Abnormal Admission Electrocardiogram	Nathaniel Costin, BS Cardiovascular Medicine
31	The development of EGFR resistant mutation, T790M, in lung adenocarcinoma is acquired through a specific cytosine deamination mechanism	Najwa El Kadi, Ph.D Hematology/Oncology
32	The protective role of young plasma in aging adipose tissue senescence	Amiya Ghosh, PhD Geriatric & Palliative Medicine

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Poster Session - Towsley Lobby, 1:00-2:00 pm

Poster #	Poster Title	Presenter
33	Cardiac myosin binding protein C mutants interact with Hsp70-family chaperones and disrupt protein quality control	<i>Amelia Glazier, BS Cardiovascular Medicine</i>
34	Differences in Mortality Event Rates After Sepsis: Comparison of 90-day In-Hospital Mortality, ARDSnet Mortality, and All-Location Mortality, with Implications for RCT Design	<i>Sushant Govindan, MD Pulmonary & Critical Care Medicine</i>
35	Patient satisfaction with the Michigan Surgical and Health Optimization Program: a mixed methods study on pre-rehabilitation	<i>Martin Gruca, BS Cardiovascular Medicine</i>
36	Identification of a Non-CD4+ IL-17 Secreting Lymphocyte Subset Important in the Development of Post-Bone Marrow Transplant Viral Pneumonia	<i>Stephen Gurczynski, PhD Pulmonary & Critical Care Medicine</i>
37	Role of A6/A11 cysteines in ER quality control of MIDY proinsulin mutants	<i>Leena Haataja, PhD MEND</i>
38	Length of Visit and Type of Activity Impacts Hand Hygiene Compliance among Healthcare Personnel	<i>Savannah Hatt, BS Geriatric & Palliative Medicine</i>
39	Predictors of Methicillin-Resistant S. Aureus & Vancomycin-Resistant Enterococci Co-colonization Among Long Term and Post-Acute Care Residents	<i>Kevin Heinze, BS Geriatric & Palliative Medicine</i>
40	(no entry)	
41	Disease modeling of thyroid-associated ophthalmopathy using 3-D human organoids	<i>Fumihito Hikage, MD, PhD MEND</i>
42	Niche construction by the collective action of fermentative and respiratory bacteria in the gut microbiome	<i>Matt Hoostal, Doctorate, Biology Infectious Diseases</i>
43	The Prevalence of Racial and Socioeconomic Disparities in an Outpatient Transitional Care Clinic	<i>Khadijah Hussain Cardiovascular Medicine</i>
44	Body Mass Index and Acute Aortic Dissection	<i>Jordan Jabara, BS Cardiovascular Medicine</i>
45	Type I Collagen Signaling Through DDR2 Receptor Regulates Fibroblast Apoptosis Through AKT	<i>Shijing Jia, MD Pulmonary & Critical Care Medicine</i>

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Poster Session - Towsley Lobby, 1:00-2:00 pm

Poster #	Poster Title	Presenter
46	Is malignant spinal cord compression an oncologic emergency?	<i>Daniel Klarr, BS Hematology/Oncology</i>
47	Frequency and patterns of new organ failure in patients with prolonged intensive care stays	<i>Rachel Kramer Pulmonary & Critical Care Medicine</i>
48	Breaches in Use of Personal Protective Equipment in the Hospital Setting: Violations, Mistakes, Slips, Oh My	<i>Sarah Krein, PhD, RN General Medicine</i>
49	Targeting activating ESR1 mutations in breast cancer with novel inhibitors and degraders of BRD4	<i>Jose Larios, MD Hematology/Oncology</i>
50	The Impact of Cytogenetics on Survival in Myelofibrosis Patients on Janus Kinase 2 Inhibitors	<i>Vincent Ma, MD Hematology/Oncology</i>
51	A needs assessment of the Geriatric Medicine rotation for Internal Medicine residents	<i>Erika Manu, MD Geriatric & Palliative Medicine</i>
52	Veterans' Attitudes Towards De-Intensification of Surveillance Colonoscopy for Low Risk Adenomas	<i>Jennifer Maratt, MD, MS Gastroenterology & Hepatology</i>
53	Parental Influences on Children's Healthy Behaviors	<i>Kayla Marcotte, MS, BS, BA Cardiovascular Medicine</i>
54	Staph aureus colonization is increased in cutaneous lupus lesions	<i>Navya Parsa, MD Rheumatology</i>
55	Rapid Pathogen Identification in Bacterial Pneumonia Using Real-time Metagenomics	<i>Katie Pendleton, MD Pulmonary & Critical Care Medicine</i>
56	Bortezomib negatively regulates diverse lung fibroblast activation phenotypes	<i>Loka Raghu Kumar Penke, PhD Pulmonary & Critical Care Medicine</i>
57	Targeted Blockade of the Programmed Cell Death-1 Receptor Improves Fungal Clearance in a Murine Model of Persistent Cryptococcal Lung Infection	<i>Jonathan Roussey, PhD Pulmonary & Critical Care Medicine</i>
58	Underappreciated diversity of Pseudomonas species in the lung microbiome	<i>Brittan Scales, PhD Pulmonary & Critical Care Medicine</i>
59	A Comparison of Socioeconomic Factors in Patients Continuing Warfarin Versus Those Transitioning to Direct Oral Anticoagulants for Venous Thromboembolic Disease or Atrial Fibrillation	<i>Jordan Schaefer, MD Hematology/Oncology</i>

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Poster Session - Towsley Lobby, 1:00-2:00 pm

Poster #	Poster Title	Presenter
60	Mechanisms and modulation of microvesicle uptake in a model alveolar cell communication	<i>Daniel Schneider, MD, PhD Pulmonary & Critical Care Medicine</i>
61	Function and Epigenetic Regulation of the Large Conductance Potassium Ion Channel Subunit KCNB1 in Normal and IPF Fibroblasts	<i>Anne Scruggs, MS Pulmonary & Critical Care Medicine</i>
62	(withdrawn)	
63	Aging impairs alveolar macrophage phagocytosis and increases influenza-induced mortality	<i>Candice Smith, PhD Cardiovascular Medicine</i>
64	Alveolar macrophage secretion of suppressor of cytokine signaling 3 is dysregulated in a mouse model of lung cancer	<i>Jennifer Speth, PhD Pulmonary & Critical Care Medicine</i>
65	Prevalence of Headaches in Patients with Fibromuscular Dysplasia	<i>Kirby Swan Cardiovascular Medicine</i>
66	A Novel Association Between GATA4 and Left Ventricular Noncompaction Cardiomyopathy	<i>Vi Tang, BS Cardiovascular Medicine</i>
67	Both Brief and Repeated Exposure of Bronchial Epithelial Cells to Particulate Matter 2.5 Increase the Expression of Numerous Genes Associated with Chronic Airway Diseases	<i>Priya Tripathi, PhD Pulmonary & Critical Care Medicine</i>
68	Hospital intensive care unit admission patterns for pneumonia are stable from year to year	<i>Thomas Valley, MD, MSc Pulmonary & Critical Care Medicine</i>
69	Excessive Antibiotic Duration in Pneumonia: Lessons and Opportunities	<i>Valerie Vaughn, MD, MSc General Medicine</i>
70	Onset of persistent critical illness in a large U.S. integrated healthcare system	<i>Elizabeth Viglianti, MD Pulmonary & Critical Care Medicine</i>
71	Uncovering novel targets for lupus nephritis treatment	<i>Sonya Wolf, PhD Candidate Rheumatology</i>
72	The Risk of Acute and Chronic Noninfectious Pulmonary Complications following Hematopoietic Stem Cell Transplantation is Associated with Early Post-Transplant Viral Infections	<i>Xiaofeng Zhou, PhD Pulmonary & Critical Care Medicine</i>
73	Distribution and Risk Factors for Carbapenem Resistance among Beta-lactam and Fluoroquinolone-resistant Enterobacteriaceae Isolated from High-Risk Nursing Home Residents	<i>Julia Mantey, MPH, MUP Geriatric & Palliative Medicine</i>



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Click on the abstract name or presenter to be directed to the abstract

