

MeRIT Program Mentor Catalog



Baylor
College of
Medicine

MARGARET M. & ALBERT B. ALKEK
DEPARTMENT OF
MEDICINE

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Mentor Brochures

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Medical Resident Investigator Track (MeRIT) Program

(ABIM Research Pathway)

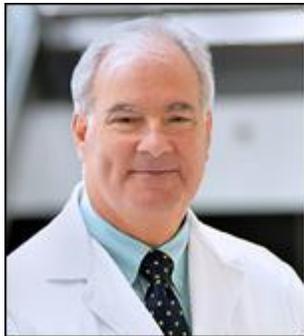
Program Summary



Rolando E. Rumbaut, MD, PhD
Director, MeRIT Program,
Vice Chair for Research,
Department of Medicine,
Baylor College of Medicine

The Department of Medicine at Baylor College of Medicine has a long-standing commitment to the career development of the next generation of academic physician-scientists. Baylor provides an exceptional environment for clinical and research training. Our physician-scientist training program (PSTP) is named the MeRIT (Medical Resident Investigator Track) program. The MeRIT program fulfills the requirements of the American Board of Internal Medicine ([ABIM](#)) [research pathway](#).

The depth and breadth of opportunities for MeRIT Program training with preeminent investigators are truly remarkable, with opportunities in basic science, clinical, translational, and health services research. The MeRIT program allows residents to pursue their research interests with faculty from Baylor and affiliated academic institutions. This brochure provides a very small sampling of the many faculty members committed to serve as primary mentors for MeRIT trainees. A broader listing of the extensive research opportunities and potential mentors available for MeRIT trainees can be found by browsing through the list of the many interdisciplinary [research centers](#) at Baylor College of Medicine.



Richard J. Hamill, MD
Director, Medicine Residency
Program
Department of Medicine,
Baylor College of Medicine

The curriculum involves two years of clinical training (instead of the usual three years) and three uninterrupted years of research training. The three years of research training can be performed at the end of the two years of clinical residency, or they can be performed at the end of subspecialty training at Baylor. Thus, each MeRIT scholar has the ability to tailor their research training experience to maximize career development. During the three research years, 20 percent of each year will be spent in clinical experiences, including at least one half-day per week in a continuity clinic. The resident will not have any on-call responsibilities during the research years. Furthermore, one of the research years can be used to fulfill the research requirement for subspecialty board certification. In addition to the primary research mentor, each trainee will have a defined mentoring committee. Research training is integrated with Baylor's [Clinical Scientist Training Program](#) and interested trainees have the option of pursuing an advanced graduate degree.

Internal medicine residents selected for the MeRIT Program are expected to be among the top applicants, not only on the basis of extraordinary clinical competence but also on commitment to pursuing academic careers as physician-scientists. MeRIT scholars are assured funding for the entire five years of the program, and are anticipated (though not required) to pursue subspecialty training at Baylor. As you make plans for residency training, we encourage you to consider the MeRIT Program and think about collaborating with its distinguished group of faculty.

Rolando E. Rumbaut, MD, PhD
Director, MeRIT Program

Richard J. Hamill, MD
Director, Medicine Residency Program



NAME	Christie Ballantyne, MD
E-MAIL	CMB@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Cardiology and Cardiovascular Research: Atherosclerosis and Vascular Medicine

ACADEMIC APPOINTMENTS

Professor and Section Chief,
Department of Medicine;

Professor,
Department of Molecular and
Human Genetics;

Professor,
Department of Molecular
Physiology and Biophysics

ADDITIONAL TITLES

Director,
The Maria and Alando J.
Ballantyne, MD
Atherosclerosis Clinical
Research Laboratory, Baylor
College of Medicine;

Director,
Center for Cardiometabolic
Disease Prevention, Baylor
College of Medicine

RESEARCH INTERESTS

Atherosclerosis

Inflammation

Precision medicine

Lipids

Leukocyte–Endothelial Adhesion Molecules

Biomarkers for Atherosclerosis and Cardiovascular Disease

Preventive Cardiology and Atherosclerosis Imaging

Obesity, Metabolic Syndrome, and Diabetes

Genetics of Lipid Disorders, Atherosclerosis, Cardiovascular Disease

Coronary Artery Disease

RESEARCH OPPORTUNITIES FOR TRAINEES

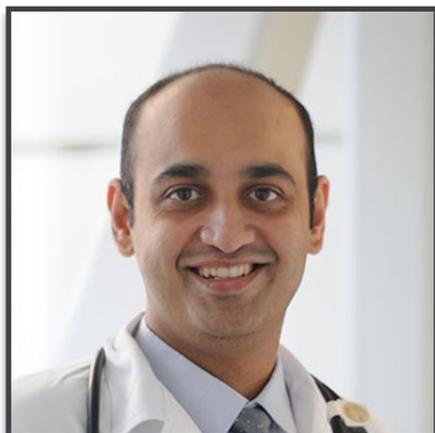
- Ongoing clinical trials in the area of lipids and atherosclerosis
- Genomic studies related to personalized medicine with the Human Genome Center
- Population health and biomarker research involving the NIH-funded Atherosclerosis Risk in Communities cohort with a focus on cardiovascular disease in the elderly and healthy aging

RELEVANT PUBLICATIONS

Bhatt DL, Steg PG, Miller M, et al. (2019). Cardiovascular Risk Reduction with Icosapent Ethyl for Hypertriglyceridemia. *N Engl J Med.* 380(1):11-22. PMID 30415628.

Jia X, Sun W, ... Ballantyne CM. (2019). High-Sensitivity Troponin I and Incident Coronary Events, Stroke, Heart Failure Hospitalization, and Mortality in the ARIC Study. *Circulation.* 139(23):2642-53. PMID 31030544.

Saeed A, Nambi V, ... Ballantyne CM. (2018). Short-Term Global Cardiovascular Disease Risk Prediction in Older Adults. *J Am Coll Cardiol.* 71(22):2527-36. PMID 29535064.



NAME	Vijay Nambi, MD
E-MAIL	VNambi@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Cardiology and Cardiovascular Research: Atherosclerosis and Vascular Medicine

ACADEMIC APPOINTMENT

Associate Professor,
Atherosclerosis and
Lipid Metabolism,
Department of Medicine

ADDITIONAL TITLE

Staff Cardiologist,
Medical Care Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Atherosclerosis Imaging

Biomarkers

Cardiovascular Disease Prevention

RESEARCH OPPORTUNITIES FOR TRAINEES

- Biomarkers and value in cardiovascular risk prediction
- Ultrasound based cardiovascular imaging
- Epidemiology of cardiovascular disease (the ARIC study)

RELEVANT PUBLICATIONS

Trang A, Kampangkaew J, ... Nambi V. (2019). Understanding by General Providers of the Echocardiogram Report. *Am J Cardiol.* 124(2):296-302. PMID 31104774.

Jaspers NEM, Blaha MJ, Matsushita K, et al. (2019). Prediction of Individualized Lifetime Benefit from Cholesterol Lowering, Blood Pressure Lowering, Antithrombotic Therapy, and Smoking Cessation in Apparently Healthy People. *Eur Heart J.* pii: ehz239. PMID 31102402.

Saeed A, Nambi V, Sun W, et al. (2018). Short-Term Global Cardiovascular Disease Risk Prediction in Older Adults. *J Am Coll Cardiol.* 71(22):2527-2536. PMID 29535064.



NAME	Salim S. Virani, MD, PhD, FACC, FAHA, FASPC
E-MAIL	Virani@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Cardiology and Cardiovascular Research: Atherosclerosis and Vascular Medicine

ACADEMIC APPOINTMENT

Professor,
Atherosclerosis and
Vascular Medicine,
Department of Medicine

ADDITIONAL TITLES

Staff Cardiologist,
Medical Care Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Cardiovascular Disease Prevention

Big Data

Cardiovascular Outcomes

RESEARCH OPPORTUNITIES FOR TRAINEES

- Epidemiology of cardiovascular disease using large datasets
- Improving quality of care for cardiovascular disease

RELEVANT PUBLICATIONS

Mahtta D, Ramsey DJ, ... Virani SS. (2020). Evaluation of Aspirin and Statin Therapy Use and Adherence in Patients With Premature Atherosclerotic Cardiovascular Disease. *JAMA Netw Open*. 3(8):e2011051. PMID 32816031.

Mahtta D, Gupta A, ... Virani SS (2020). Autoimmune Rheumatic Diseases and Premature Atherosclerotic Cardiovascular Disease: An Analysis From the VITAL Registry. *Am J Med*. S0002-9343(20)30524-6 . PMID 32598903.

Al Rifai M, Merchant AT, ... Virani SS (2020). Temporal Trends in E-Cigarette Use Among U.S. Adults: Behavioral Risk Factor Surveillance System. 133(9):e508-e511. PMID 32222250.



NAME	Mark L. Entman, MD
E-MAIL	MEntman@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Cardiovascular Research: Cardiovascular Sciences

ACADEMIC APPOINTMENTS

Professor,
Departments of Medicine,
Biochemistry & Molecular
Biology,
Molecular Physiology &
Biophysics, and
Pathology & Immunology

ADDITIONAL TITLES

William J. Osher Chair in
Cardiovascular Research;
Scientific Director,
The DeBaakey Heart Center,
Baylor College of Medicine

RESEARCH INTERESTS

Molecular Mechanisms of Cardiac Injury and Repair
Molecular and Cellular Dysregulation in the Aging Heart
Role of Inflammatory and Metabolic Cycles in Heart Failure
Molecular and Cellular Intervention into Heart Failure in the Aging Heart

RESEARCH OPPORTUNITIES FOR TRAINEES

- Cell biology of mesenchymal cell plasticity in heart failure
- Cellular and therapeutic strategies
- Monitoring and quantitating cardiac function over time in awake mice

RELEVANT PUBLICATIONS

Hartley CJ, Reddy AK, Madala S, Entman ML, et al. (2011). Doppler Velocity Measurements from Large and Small Arteries of Mice. *Am J Physiol Heart Circ Physiol.* 301(2): H269-78. PMID: 21572013

Reineke EL ... Entman ML, O'Malley BW. (2012). SRC-2 Coactivator Deficiency Decreases Functional Reserve in Response to Pressure Overload of Mouse Heart. *PLoS One.* 7(12): e53395. PMID: 23300926.

Duerrschmid C ... Entman ML, Haudek SB. (2015). Tumor Necrosis Factor: A Mechanistic Link between Angiotensin-II-Induced Cardiac Inflammation and Fibrosis. *Circ Heart Fail.* 8:352-361. PMID: 25550440.



NAME	Xander Wehrens, MD, PhD
E-MAIL	Wehrens@bcm.edu
PRIMARY DEPT.	Molecular Physiology & Biophysics
SECTION	Cardiology and Cardiovascular Research: Cardiovascular Sciences

ACADEMIC APPOINTMENTS

Professor,
Department of Molecular
Physiology & Biophysics

ADDITIONAL TITLES

Director,
Cardiovascular Research
Institute (CVRI),
Baylor College of Medicine;
Juanita P. Quigley Endowed
Chair in Cardiology, Baylor Col-
lege of Medicine

RESEARCH INTERESTS

Electrophysiology

Gene Therapy and Genome Editing of CV Disease

Mouse Models of Heart Disease

Induced Pluripotent Stem Cells

RESEARCH OPPORTUNITIES FOR TRAINEES

- Patient-derived induced pluripotent stem cells to uncover mechanisms of inherited arrhythmias and cardiomyopathies
- Elucidating mechanisms of post-operative atrial fibrillation in patient biopsies and mouse models
- Genome editing in vivo to cure inherited and acquired arrhythmia syndromes

RELEVANT PUBLICATIONS

Alsina KM, Hulsurkar M, ... Wehrens XHT. (2019). Loss of Protein Phosphatase 1 Regulatory Subunit PPP1R3A Promotes Atrial Fibrillation. *Circulation*. 140(8):681-693. PMID 31185731.

Pan X, Philippen L, ... Wehren XHT. (2018). In Vivo Ryr2 Editing Corrects Catecholaminergic Polymorphic Ventricular Tachycardia. *Circ Res*. 123(8):953-963. PMID 30355031.

Chiang DY, Alsina KM, ... Wehrens XHT. (2018). Rearrangement of the Protein Phosphatase 1 Interactome During Heart Failure Progression. *Circulation*. 138(15):1569-1581. PMID 29669786.



NAME	Miguel A. Cruz, PhD
E-MAIL	MiguelC@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Cardiovascular Research: Thrombosis

ACADEMIC APPOINTMENTS

Professor,
Departments of Medicine,
Pediatrics,
and Molecular Physiology &
Biophysics

ADDITIONAL TITLES

Research Health Scientist,
Research Service Line,
Michael E. DeBakey
VA Medical Center;

Co-Director, Center for
Translational Research
on Inflammatory Diseases
(CTRID)

RESEARCH INTERESTS

<i>Thrombosis</i>	<i>Inflammation</i>
<i>Von Willebrand Factor</i>	<i>Vimentin</i>
<i>Platelet Adhesion</i>	
<i>Extracellular Hemoglobin and Thrombosis</i>	

RESEARCH OPPORTUNITIES FOR TRAINEES

- Role of free hemoglobin in thrombosis in ECMO/LVAD
- Molecular mechanisms of thrombo-inflammatory diseases

RELEVANT PUBLICATIONS

Da Q, Teruya M, ...Cruz MA. (2015). Free Hemoglobin Increases von Willebrand Factor-Mediated Platelet Adhesion in Vitro: Implications for Circulatory Devices. *Blood*. 126(20):2338-41. PMID 26307534.

Da Q, Behymer M, ... Cruz MA. (2014). Platelet Adhesion Involves a Novel Interaction between Vimentin and von Willebrand Factor under High Shear Stress. *Blood*. 123(17):2715-21. PMID 24642750.

Valladolid C, Yee A, Cruz MA. (2018). von Willebrand Factor, Free Hemoglobin and Thrombosis in ECMO. *Front Med (Lausanne)*. 5:228. PMID 30175099.



NAME	Sean M. Hartig, PhD
E-MAIL	Hartig@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Endocrinology, Diabetes and Metabolism

ACADEMIC APPOINTMENT

Associate Professor,
Department of Medicine and
Molecular & Cellular Biology

RESEARCH INTERESTS

Environmental and Diet Impacts on Obesity

*Cellular and Physiological Mechanisms of Energy
Balance Disorders*

RESEARCH OPPORTUNITIES FOR TRAINEES

- Development biology of adipose tissue
- Immune cell contributions to obesity

RELEVANT PUBLICATIONS

Koh EH, Chernis N, ... Hartig SM. (2018). miR-30a Remodels Subcutaneous Adipose Tissue Inflammation to Improve Insulin Sensitivity in Obesity. *Diabetes*. 67:2541-2553. PMID 30002134.

Bader DA, Hartig SM, Putluri V, et al. (2019). Mitochondrial Pyruvate Import is a Metabolic Vulnerability in Prostate Adenocarcinoma. *Nature Metabolism*. 1:70-85. PMID 31198906.

Cox AR, Chernis N, Masschelin P, Hartig SM. (2019). Immune Cells Gate White Adipose Tissue Expansion. *Endocrinology*. 160:1645-1658. PMID 31107528.



NAME **Rajagopal V. Sekhar, MD**

E-MAIL **RSekhar@bcm.edu**

PRIMARY DEPT. **Medicine**

SECTION **Endocrinology, Diabetes, and
Metabolism**

ACADEMIC APPOINTMENT

Associate Professor,
Department of Medicine

ADDITIONAL TITLE

Lead,
HIV Metabolic Clinic,
Thomas Street Health Center

RESEARCH INTERESTS

Bioenergetics and Mitochondrial Metabolism *Aging*

Strength, Sarcopenia and Sarcopenic Obesity in Aging and HIV

Insulin Resistance and Beta Cell Function

Diabetic Complications

Metabolic Syndrome

Metabolic Complications of HIV

Obesity

Cognitive Impairment in Alzheimer's Disease, HIV and Diabetes

Inflammation and Endothelial Dysfunction

Non-Alcoholic Fatty Liver Disease

RESEARCH OPPORTUNITIES FOR TRAINEES

- Human clinical trials in aging, cognition, diabetes and HIV
- Rodent and cellular studies to complement human trials to investigate mechanisms

RELEVANT PUBLICATIONS

Sekhar RV, Patel SG, Guthikonda AP, et al. (2011). Deficient Synthesis of Glutathione Underlies Oxidative Stress in Aging and Can Be Corrected By Dietary Cysteine and Glycine Supplementation. *Am J Clin Nutr.* 94(3):847-53. PMID 21795440.

Nguyen D, Sanson SL, ... Sekhar RV. (2013). Impaired Mitochondrial Fatty Acid Oxidation and Insulin Resistance in Aging: Novel Protective Role of Glutathione. *Aging Cell.* 12(3):415-25. PMID 23534396.

Sekhar RV, McKay SV, Patel SG, et al. (2011). Glutathione Synthesis is Diminished in Patients with Uncontrolled Diabetes and Restored By Dietary Supplementation with Cysteine and Glycine. *Diabetes Care.* 34(1):162-7. PMID 20929994.



NAME	Dennis T. Villareal, MD
E-MAIL	Dennis.Villareal@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Endocrinology, Diabetes and Metabolism

ACADEMIC APPOINTMENT

Professor,
Department of Medicine

ADDITIONAL TITLE

Staff Physician,
Medical Care Line
and Research Service Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Sarcopenia

Sarcopenic Obesity

Frailty

RESEARCH OPPORTUNITIES FOR TRAINEES

- Role of weight loss and exercise therapies in reversing sarcopenic obesity and frailty
- Mechanisms for the reversal of sarcopenic obesity and frailty by intensive lifestyle interventions
- Body composition and bone quality changes in response to intensive lifestyle intervention in older adults with obesity

RELEVANT PUBLICATIONS

Colleluori G, Aguirre L, ... Villareal DT. (2019). Aerobic Plus Resistance Exercise in Obese Older Adults Improves Muscle Protein Synthesis and Preserves Myocellular Quality Despite Weight Loss. *Cell Metabolism*. 30(2):261-273.e6. PMID 31279675.

Batsis JA, Villareal DT. (2018). Sarcopenic Obesity in Older Adults: Aetiology, Epidemiology and Treatment Strategies. *Nat Rev Endocrinol*. 14(9):513-537. PMID 30065268.

Villareal DT, Aguirre L, Gurney AB, et al. (2017). Aerobic or Resistance Exercise, or Both, in Dieting Obese Older Adults. *N Engl J Med*. 376(20):1943-1955. PMID 28514618.



NAME	Chris Amos, PhD, MS
E-MAIL	ChrisA@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Epidemiology and Population Sciences

ACADEMIC APPOINTMENTS

Professor and Director
for the Institute of Clinical and
Translational Medicine,
Department of Medicine

ADDITIONAL TITLE

Associate Director
of Quantitative Science,
Dan L. Duncan
Comprehensive Cancer Center

RESEARCH INTERESTS

Genetic Epidemiology of Cancer and Autoimmune Disease

Machine Learning Tools in Gene-Environment Interaction

Liver Diseases

Evaluation of Risk through Family Studies

Integrative Analysis for Genomic Risk Modeling

RESEARCH OPPORTUNITIES FOR TRAINEES

- Genomics analysis of relapse from lung cancer
- Mendelian randomization for common cancers
- Longitudinal analysis of liver cancer development
- Machine learning tools for risk modeling in vasculopathies

RELEVANT PUBLICATIONS

Gorlov IP, Gorlova OY, Amos CI. (2019). Untouchable Genes in the Human Genome: Identifying Ideal Targets for Cancer Treatment. *Cancer Genet.* 231-232:67-79. PMID 30803560.

Kamal Y, Cheng C, Frost HR, Amos CI. (2018). Predictors of Disease Aggressiveness Influence Outcome from Immunotherapy Treatment in Renal Clear Cell Carcinoma. *Oncoimmunology.* 8(1):e1500106. PMID 30546942.

Frost HR, Amos CI. (2018). A Multi-omics Approach for Identifying Important Pathways and Genes in Human Cancer. *BMC Bioinformatics.* 19 (1):479. PMID 30541428.



NAME	Aaron Peter Thrift, PhD
E-MAIL	Aaron.Thrift@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Epidemiology & Population Sciences

ACADEMIC APPOINTMENT

Assistant Professor,
Department of Medicine

ADDITIONAL TITLE

Investigator,
Research Service Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

*Epidemiology and Outcomes of Gastrointestinal
Cancers and Pre-Cancer Conditions*

Genetic Epidemiology

Risk Prediction

Descriptive Epidemiology

RESEARCH OPPORTUNITIES FOR TRAINEES

- Gut microbiome in cirrhosis and hepatocellular carcinoma
- Risk factors for neoplastic progression in patients with Barrett's esophagus
- Germline genetics of advanced liver disease in minority populations

RELEVANT PUBLICATIONS

Dong J, Buas MF, ... Thrift AP. (2018). Determining Risk of Barrett's Esophagus and Esophageal Adenocarcinoma Based on Epidemiologic Factors and Genetic Variants. *Gastroenterology*. 154(5):1273-1281.e3. PMID 29247777.

Dong J, Levine DM, ... Thrift AP. Interactions Between Genetic Variants and Environmental Factors Affect Risk of Esophageal Adenocarcinoma and Barrett's Esophagus. *Clin Gastroenterol Hepatol*. 16(10):1598-1606.e4. PMID 29551738.

Cotton CC, Haidry R, Thrift AP, et al. (2018). Development of Evidence-Based Surveillance Intervals After Radiofrequency Ablation of Barrett's Esophagus. *Gastroenterology*. 155(2):316-326.e6. PMID 29655833.



NAME	Hashem El-Serag, MD, MPH
E-MAIL	HashemE@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Gastroenterology and Hepatology

ACADEMIC APPOINTMENTS

Chair and Professor,
Margaret M. and Albert B.
Alkek Department of
Medicine;

ADDITIONAL TITLES

Director,
Texas Medical Center
Digestive Diseases Center
(TMC DDC),
Baylor College of Medicine;
Investigator,
Clinical Epidemiology &
Comparative Effectiveness
Program, Center for
Innovations in Quality,
Effectiveness and Safety,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Barrett's Esophagus *Viral Hepatitis*
Chronic Liver Disease *Hepatocellular Carcinoma*
Genetic Epidemiology
Dyspepsia and Gastroesophageal Reflux Disease
Screening and Surveillance of GI and Liver Cancers
Epidemiology and Outcomes of Digestive Disorders

RESEARCH OPPORTUNITIES FOR TRAINEES

- Prevalence and risk factors for non alcoholic fatty liver disease
- Predictive algorithms for surveillance and diagnosis of hepatocellular carcinoma
- Risk factors for Barrett's esophagus progression into cancer
- Meta analyses

RELEVANT PUBLICATIONS

Kanwal F, Kramer J, ... El-Serag HB. (2017). Risk of Hepatocellular Cancer in HCV Patients Treated With Direct-Acting Antiviral Agents. *Gastroenterology*. 153(4):996-1005. PMID 28642197.

White DL, Richardson P, ... El-Serag HB. (2015). The Updated Model: An Adjusted Serum Alpha-Fetoprotein-Based Algorithm for Hepatocellular Carcinoma Detection With Hepatitis C Virus-Related Cirrhosis. *Gastroenterology*. 149(7):1986-7. PMID 26519622.

Tau A, Bernica J, Thrift AP, El-Serag HB. (2019). Changing Trends in Colorectal Cancers (Detected by Screening, During Screening Intervals, or Associated With Nonadherence) Identify Possible Health Care System Quality Measures. *Gastroenterology*. 156(3):809-811. PMID 30514636.



NAME	Fasiha Kanwal, MD, MSHS
E-MAIL	Kanwal@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Gastroenterology and Hepatology

ACADEMIC APPOINTMENTS

Professor and Section Chief,
Department of Medicine

ADDITIONAL TITLES

Editor-in-Chief,
Clinical Gastroenterology
and Hepatology;
Co-Director, Texas Medical
Center Digestive Diseases
Center for Gastrointestinal
Development, Infection, and
Injury;
Investigator, Clinical
Epidemiology and
Comparative Effectiveness
Program, Center for
Innovations in Quality,
Effectiveness and Safety,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Viral Hepatitis *Health-Related Quality of Life*
Chronic Liver Disease *Practice Metrics*
Quality Improvement
Structure, Processes, and Outcomes of Care

RESEARCH OPPORTUNITIES FOR TRAINEES

- Patient centered care for individuals with advanced liver disease
- Risk factors for hepatocellular carcinoma in non-alcoholic fatty liver disease
- Texas Medical Center Digestive Diseases Center for Gastrointestinal Development, Infection and Injury
- Risk stratification for and early detection of liver cancer
- Personalized surveillance program for hepatocellular carcinoma
- Risk of hepatocellular cancer after virological cure with direct acting antiviral agents in individuals with hepatitis C

RELEVANT PUBLICATIONS

Kanwal F, Tapper EB, Ho C, et al. (2019). Development of Quality Measures in Cirrhosis by the Practice Metrics Committee of the American Association for the Study of Liver Diseases. *Hepatology*. 69(4):1787-1797. PMID 30586188.

Kanwal F, Kramer JR, Mapakshi S, et al. (2018). Risk of Hepatocellular Cancer in Patients With Non-Alcoholic Fatty Liver Disease. *Gastroenterology*. 155(6):1828-1837.e2. PMID 30144434.

Kanwal F, Kramer J, Asch SM, et al. (2017). Risk of Hepatocellular Cancer in HCV Patients Treated With Direct-Acting Antiviral Agents. *Gastroenterology*. 153(4):996-1005.e1. PMID 28642197.



NAME	Aanand D. Naik, MD
E-MAIL	ANaik@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Geriatrics

ACADEMIC APPOINTMENTS

Associate Professor and
Acting Section Chief,
Department of Medicine;

Vice Chair for Medicine, Quality
Improvement and Innovations;

Program Director, Health
Services Research
Postdoctoral Fellowships

ADDITIONAL TITLES

Chief, Implementation Science
& Innovations Core, Center for
Innovations in Quality,
Effectiveness and Safety,
Michael E. DeBakey
VA Medical Center;

Director, Coordinating Center,
National VA Quality Scholars
Program

RESEARCH INTERESTS

Developing and Testing Interventions to Improve Health Outcome for Older Adults with Multiple Chronic Conditions

Developing and Validating Models to Measure Frailty among Older Adults Using Electronic Health Records, Patient Reported Outcomes, and Wearable Sensor Data

Mentoring Faculty in the Development of Methods and Skills for Quality Improvement and Implementation Science

RESEARCH OPPORTUNITIES FOR TRAINEES

- Analysis of data from a randomized clinical trial of an innovative model of chronic illness care for older adults with diabetes and comorbid illnesses
- Development of pilot studies to validate the patient priorities care intervention for older adults with multiple morbid conditions including substudy of patients with cognitive impairment
- Participating in large data analytics studies (data science and machine learning), developing and validating models of frailty among older adults, including studies of heart failure re-admissions, mortality, and functional decline/loss of independence
- Implementation of age-friendly health systems using the Institute for Healthcare Improvement (IHI)'s 4-Ms model

RELEVANT PUBLICATIONS

Naik AD, Hundt NE, Vaughan EM, et al. (2019). Effect of Telephone-Delivered Collaborative Goal Setting and Behavioral Activation vs Enhanced Usual Care for Depression Among Adults With Uncontrolled Diabetes: A RCT. *JAMA Netw Open.* 2 (8):e198634. PMID: 31390035.

Naik AD, Arney J, Clark JA, et al. (2019). Integrated Model for Patient-Centered Advanced Liver Disease Care. *Clin Gastroenterol Hepatol.* [Epub ahead of print]. PMID: 31357029.

Feder SL, Kiwak E, ... Naik AD. (2019). Perspectives of Patients in Identifying Their Values-Based Health Priorities. *J Am Geriatr Soc.* 67(7):1379-1385. PMID: 30844080.



NAME	Laura A. Petersen, MD, MPH, FACP
E-MAIL	LauraP@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Health Services Research

ACADEMIC APPOINTMENTS

Professor and
Section Chief,
Department of Medicine

ADDITIONAL TITLES

Associate Chief of Staff
for Research,
Michael E. DeBakey
VA Medical Center;

Director, Center for
Innovations in Quality,
Effectiveness, and Safety
(IQuEst),
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Healthcare Quality Measurement Methods

Practice Metrics

Quality Improvement

*Assessing How Healthcare Policy, Organization, and
Financing Affects the Quality and Safety of Healthcare*

RESEARCH OPPORTUNITIES FOR TRAINEES

- Measuring quality and value in healthcare
- Studying impacts of policies such as Medicaid expansion on healthcare quality

RELEVANT PUBLICATIONS

Petersen, LA, Woodard LD, Urech T, et al. (2006). Does Pay-For-Performance Improve the Quality of Health Care? *Ann Intern Med.* 145(4):265-72. PMID 16908917.

Woodard LD, Petersen LA. (2010). Improving the Performance of Performance Measurement. *J Gen Intern Med.* 25(2):100-1. PMID 19953336.

Petersen LA, Simpson K, Pietz K, et al. (2013). Effects of Individual Physician-Level and Practice-Level Financial Incentives on Hypertension Care: A Randomized Trial. *310(10):1042-50.* PMID 24026599.



NAME	Hardeep Singh, MD, MPH
E-MAIL	HardeepS@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Health Services Research

ACADEMIC APPOINTMENT

Professor,
Department of Medicine

ADDITIONAL TITLES

Chief,
Health Policy, Quality
and Informatics
Center for Innovations in
Quality, Effectiveness and
Safety (IQuEST),
Michael E. DeBakey VA
Medical Center;

Director,
Diagnosis Improvement Safety
Center (DISCOVERY),
Baylor College of Medicine

RESEARCH INTERESTS

Understanding and Reducing Diagnostic Errors
Use of Health Information Technology to Improve Health Care
Safety of Electronic Health Record Implementation and Use

RESEARCH OPPORTUNITIES FOR TRAINEES

- Measurement of patient safety outcomes, including missed, delayed and incorrect diagnosis using multiple methods
- Research on health care improvement strategies and implementation science

RELEVANT PUBLICATIONS

Sittig DF, Singh H. (2012). Electronic Health Records and National Patient-Safety Goals. *N Engl J Med.* 367 (19): 1854-60. PMID 23134389.

Singh H, Graber ML. (2015). Improving Diagnosis in Health Care - The Next Imperative for Patient Safety. *N Engl J Med.* 373 (26): 2493-5. PMID 26559457.

Singh H, Giardina TD, Meyer AN, et al. (2013). Types and Origins of Diagnostic Errors in Primary Care Settings. *JAMA Intern Med.* 173 (6): 418-25. PMID 23440149.



NAME	Matthew J. Ellis, MB, BChir, BSc, PhD, FRCP
E-MAIL	Matthew.Ellis@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENTS

Professor,
Departments of Medicine and
Molecular and Cellular Biology;

Director, Lester and Sue Smith
Breast Center

ADDITIONAL TITLES

Associate Director
of Precision Medicine,
Dan L. Duncan
Comprehensive Cancer Center,
Baylor College of Medicine;

McNair Scholar,
Baylor College of Medicine;

Susan G. Komen Scholar,
Baylor College of Medicine

RESEARCH INTERESTS

Breast Cancer Oncology

Breast Cancer Proteogenomics

Metastatic Breast Cancer

Clinical Trials

RESEARCH OPPORTUNITIES FOR TRAINEES

- We have a wide range of projects that integrate clinical investigations, bioinformatics and laboratory based studies.
- The objectives are to develop better diagnostic algorithms that drive more effective treatments. Projects will be individualized to match time commitments or interests.

RELEVANT PUBLICATIONS

Ellis MJ, Ding L, Shen D, et al. (2012). Whole-Genome Analysis Informs Breast Cancer Response to Aromatase Inhibition. *Nature*. 486(7403):353-60. PMID 22722193.

Li S, Shen D, ... Ellis MJ. (2013). Endocrine-Therapy-Resistant ESR1 Variants Revealed by Genomic Characterization of Breast-Cancer-Derived Xenografts. *Cell Rep*. 4(6):1116-30. PMID 24055055.

Mertins P, Mani DR, Ruggles KV, et al. (2016). Proteogenomics Connects Somatic Mutations to Signalling in Breast Cancer. *Nature*. 534(7605):55-62. PMID 27251275.



NAME	H. Courtney Hodges, PhD
E-MAIL	CHodges@bcm.edu
PRIMARY DEPT.	Molecular and Cellular Biology
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENT

Assistant Professor,
Department of Molecular &
Cellular Biology;

Assistant Professor (adjunct),
Department of
Bioengineering,
Rice University

ADDITIONAL TITLES

Member,
Dan L. Duncan Cancer Center;

CPRIT Scholar;

V Scholar,
Baylor College of Medicine

Member,
Center for Cancer Epigenetics,
MD Anderson Cancer Center

RESEARCH INTERESTS

Epigenetic Dysfunction in Pediatric and Adult Malignancies

Cancer Metabolism

Chromatin and Chemical Biology

3D Cell Culture Modeling

RESEARCH OPPORTUNITIES FOR TRAINEES

- Mechanisms and vulnerabilities related to transcriptional deregulation in pediatric and adult malignancies
- Cross-talk between epigenetic and metabolic tumor suppression mechanisms
- Improving genomic modeling of cancer using 3D culture of organoids/spheroids
- Collaborative studies with Rice Bioengineering faculty focused on drug delivery, biomaterials, and organ-on-a-chip models

RELEVANT PUBLICATIONS

Smith EA, Hodges HC. (2019). The Spatial and Genomic Hierarchy of Tumor Ecosystems Revealed by Single-Cell Technologies. *Trends Cancer*. 5(7):411-425. PMID 31311656.

Hodges HC, Stanton BZ, Cermakova K, et al. (2018). Dominant-Negative SMARCA4 Mutants Alter the Accessibility Landscape of Tissue-Unrestricted Enhancers. *Nat Struct Mol Biol*. 25(1):61-72. PMID 29323272.

Hodges C, Kirkland JG, Crabtree GR. (2016). The Many Roles of BAF (mSWI/SNF) and PBAF Complexes in Cancer. *Cold Spring Harb Perspect Med*. 6(8):a026930. PMID 27413115.



NAME	Valentina Hoyos, MD
E-MAIL	Hoyos@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENT

Assistant Professor,
Center for Cell
and Gene Therapy,
Lester and Sue Smith
Breast Center

ADDITIONAL TITLES

Program Director,
Cell and Gene Therapy (CAGT)
Summer Research Internship
Program;

Member,
Dan L. Duncan Cancer Center,
Baylor College of Medicine

RESEARCH INTERESTS

Cellular and Gene Therapies
Immunotherapies for Breast Cancer
T Cell Genetic Engineering

RESEARCH OPPORTUNITIES FOR TRAINEES

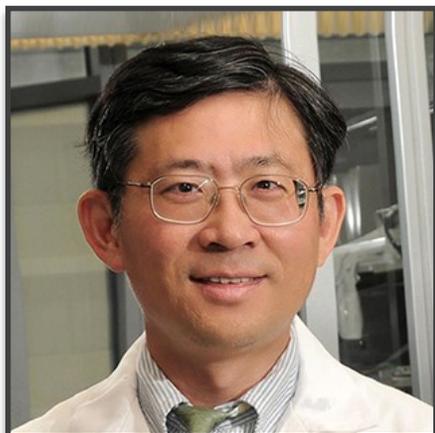
- Adoptive T cell therapies for the treatment of breast cancer
- Genetic engineering of T cells to enhance their anti-tumor function
- Overcoming the immune-suppressive breast cancer microenvironment

RELEVANT PUBLICATIONS

Hoyos V, Savoldo V, Quintarelli C, et al. (2010). Engineering CD19-Specific T Lymphocytes with Interleukin-15 and a Suicide Gene to Enhance Their Anti-Lymphoma/Leukemia Effects and Safety. *Leukemia*. 24(6):1160-70. PMID 20428207.

Hoyos V, Del Bufalo F, Yagyu S, et al. (2015). Mesenchymal Stromal Cells for Linked Delivery of Oncolytic and Apoptotic Adenoviruses to Non-Small-Cell Lung Cancers. *Mol Ther*. 23(9):1497-506. PMID 26084970.

Bajgain P, Tawinwung S, D'Elia L, et al. (2018). CAR T Cell Therapy for Breast Cancer: Harnessing the Tumor Milieu to Drive T Cell Activation. *J Immunother Cancer*. 6(1):34. PMID 29747685.



NAME	Weei-Chin Lin, MD, PhD
E-MAIL	WeeChiL@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENTS

Professor,
Department of Medicine and
Molecular & Cellular Biology

ADDITIONAL TITLES

Program Director, Oncology
Scholar Training Program;

Co-Director, Program
in Integrative Molecular
and Biomedical Sciences

RESEARCH INTERESTS

Cell Cycle Regulation
Development of Cancer Therapeutics
Clinical Hematology

RESEARCH OPPORTUNITIES FOR TRAINEES

- Mechanisms of cell cycle and DNA replication checkpoint defects in cancer
- Regulation of E2F1 stability and specific role of E2F1 during genotoxic and oxidative stresses
- Mechanism of EGFR regulation in cancer
- Mechanisms of breast cancer metastasis and loss of estrogen receptor
- Novel targeted therapies against mutant p53 in breast cancer and ovarian cancer
- New biomarker and therapeutic target for platinum resistance in lung cancer

RELEVANT PUBLICATIONS

Ho SR, Lin WC. (2018). RNF144A Sustains EGFR Signaling to Promote EGF-Dependent Cell Proliferation. *J Biol Chem.* 293(42):16307-16323. PMID: 30171075.

Liu K, Lin FT, ... Lin WC. (2017). Mutant p53 Perturbs DNA Replication Checkpoint Control through TopBP1 and Treslin. *Proc Natl Acad Sci U S A.* 114(19):E3766-E3775. PMID: 28439015.

Lin FT, Lin VY, Lin VT, Lin WC. (2016). TRIP6 Antagonizes the Recruitment of A20 and CYLD to TRAF6 to Promote the LPA2 Receptor-Mediated TRAF6 Activation. *Cell Discov.* 2. PMID: 27134758.



NAME	Premal Lulla, MBBS
E-MAIL	Lulla@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENT

Assistant Professor,
Center for Cell
and Gene Therapy

ADDITIONAL TITLES

Faculty,
Translational Biology
and Molecular Medicine
Graduate Program;

Member,
Dan L. Duncan Cancer Center,
Baylor College of Medicine

RESEARCH INTERESTS

T Cell Immunotherapy

Hematopoietic Stem Cell Transplants

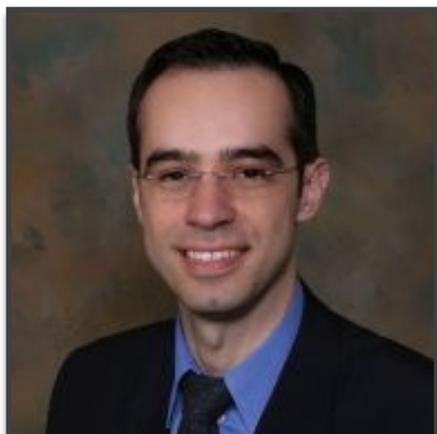
RESEARCH OPPORTUNITIES FOR TRAINEES

- Immune reconstitution post-allogeneic hematopoietic stem cell transplantation
- Identification of novel leukemia antigens for T cell immunotherapy
- Clonal hematopoiesis and its effects on adaptive immunity

RELEVANT PUBLICATIONS

Lulla P, Heslop HE. (2017). Fall of the Mutants: T Cells Targeting BCR-ABL. *Blood*. 129(5):539-540. PMID 28153834.

Leung W, Workineh A, Mukhi S, et al. (2020). Evaluation of Cyclin A1-Specific T Cells as a Potential Treatment for Acute Myeloid Leukemia. *Blood Adv*. 4(2):387-397. PMID 31985805.



NAME	Carlos Ramos, MD
E-MAIL	CARamos@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Hematology and Oncology

ACADEMIC APPOINTMENT

Assistant Professor,
Center for Cell
and Gene Therapy

ADDITIONAL TITLES

Member,
Dan L. Duncan Cancer Center,
Baylor College of Medicine

RESEARCH INTERESTS

Hematopoietic Stem Cell Transplantation
Chimeric Antigen Receptors for Cancer Therapy
Cellular Therapy for HPV-Associated Tumors

RESEARCH OPPORTUNITIES FOR TRAINEES

- CD19-CAR iNKT cells as therapy for B cell lymphomas
- Allogeneic CD30-CAR T cells as therapy for Hodgkin lymphoma
- Cellular therapy for HPV-associated tumors

RELEVANT PUBLICATIONS

Gomes-Silva D, Ramos CA. (2017). Cancer Immunotherapy Using CAR-T Cells: From the Research Bench to the Assembly Line. *Biotechnol J.* 13 (2):10.1002/biot.201700097 . PMID 28960810.

Ramos CA, Ballard B, Zhang H, et al. (2017). Clinical and Immunological Responses after CD30-Specific Chimeric Antigen Receptor-Redirected Lymphocytes. *J Clin Invest.* 127(9):3462-3471. PMID 28805662.

Ramos CA, Savoldo B, Torrano V, et al. (2016). Clinical Responses with T Lymphocytes Targeting Malignancy-Associated κ -Light Chains. *J Clin Invest.* 126(7):2588-2596. doi: 10.1172/JCI86000.



NAME	Sandeep Krishna Agarwal, MD, PhD
E-MAIL	SKAgarwa@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Immunology, Allergy and Rheumatology

ACADEMIC APPOINTMENTS

Associate Professor
and Section Chief,
Department of Medicine

ADDITIONAL TITLES

Director,
Biology of Inflammation
Center,
Baylor College of Medicine;

Program Director,
Rheumatology Fellowship,
Baylor College of Medicine;

The Cullen Trust for
Health Care Endowed Chair
in Immunology

RESEARCH INTERESTS

<i>Systemic Sclerosis</i>	<i>Rheumatoid arthritis</i>
<i>Cadherin biology</i>	<i>JAK-STAT signaling</i>
<i>Mechanisms of Fibrosis in Autoimmune Diseases</i>	
<i>Mechanisms of Lung and Skin Fibrosis</i>	
<i>Contributions of Macrophages and Epithelial Injury to Fibrosis</i>	

RESEARCH OPPORTUNITIES FOR TRAINEES

- Mouse models of lung and skin fibrosis
- Cellular and molecular immunology
- Translational studies in systemic sclerosis, rheumatoid arthritis and idiopathic pulmonary fibrosis

RELEVANT PUBLICATIONS

Agarwal SK, Wu M, Huang M, et al. (2011). Toll-Like Receptor 3 Upregulation by Type I Interferon in Healthy and Scleroderma Dermal Fibroblasts. *Arthritis Res Ther.* 13(1):R3. PMID 21223583.

Pedroza M, To S, ...Agarwal SK. (2017). Role of STAT3 in Skin Fibrosis and TGF-Beta Signaling. *Rheumatology.* 57(10):1836-1850. PMID 29029263.

Pedroza M, Welschhans RL, Agarwal SK. (2017). Targeting of Cadherin-11 Decreases Skin Fibrosis in the Tight Skin-1 Mouse Model. *PLoS One.* 12(11):30187109. PMID 29112946.



NAME	David B. Corry, MD
E-MAIL	DCorry@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Immunology, Allergy and Rheumatology

ACADEMIC APPOINTMENT(S)

Professor,
Departments of Pathology &
Immunology and Medicine;

Vice Chair for Immunology ,
Department of Pathology &
Immunology

ADDITIONAL TITLE(S)

Staff Physician,
Immunology,
Medical Care Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Allergic Airway Disease *Fungi*
Dementia *Emphysema*
MicroRNAs

RESEARCH OPPORTUNITIES FOR TRAINEES

- Fungal pathogenesis of allergic airway disease
- Fungal pathogenesis of chronic cerebritis and dementia
- MicroRNA-dependent control of inflammatory lung disease
- Design and testing of novel antifungal agents

RELEVANT PUBLICATIONS

Grunig G, Warnock M, ... Corry DB. (1998). Requirement for IL-13 Independently of IL-4 in Experimental Asthma. *Science*. 282:(5397) 2261-2263. PMID 9856950.

Lee S-H, Goswami S, Grudo A, et al. (2007). Anti-Elastin Autoimmunity in Tobacco Smoking-Induced Emphysema. *Nat Med*. 13:(5)567-569. PMID 17450149.

Kheradmand F, Kiss A, ... Corry DB. (2002). A Protease Activated Pathway Underlying T Helper Cell Type 2 Commitment and Allergic Lung Disease. *J Immunol*. 169:5904-5911. PMID 12421974.



NAME	Sanjiv Sur, MD
E-MAIL	SSur@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Immunology, Allergy and Rheumatology

ACADEMIC APPOINTMENT

Professor,
Department of Medicine

ADDITIONAL TITLES

Director,
Clinical Allergy and
Immunology Services in
Section of Immunology,
Allergy and Rheumatology;

Director,
Human Immunology Research
Biology of Inflammation
Center,
Baylor College of Medicine

RESEARCH INTERESTS

Role of Cytosolic DNA-multiprotein Interactome in Allergic Airway Inflammation

Role of Cytosolic DNA Sensor in Allergic Airway Inflammation

Allergic Lung Inflammation-induced Oxidative DNA Damage in the Brain as a Risk Factor for Alzheimer's Disease

RESEARCH OPPORTUNITIES FOR TRAINEES

- Immune and molecular mechanisms of asthma and allergic inflammation
- Biologic therapies for treatment of asthma
- Role of epigenetics and DNA damage in allergic inflammation

RELEVANT PUBLICATIONS

Hosoki K, Chakraborty A, Sur S. (2020). Molecular Mechanisms and Epidemiology of COVID-19 from an Allergist's Perspective. *J Allergy Clin Immunol*. S0091-6749(20)30799-5. PMID 32624257.

Tian B, Hosoki K, Liu Z, et al. (2019). Mucosal Bromodomain-Containing Protein 4 Mediates Aeroallergen-Induced Inflammation and Remodeling. *J Allergy Clin Immunol* 143(4):1380-1394. PMID 30321559.

Wu AY, Sur S, Grant JA, Tripple JW. (2019). Interleukin-4/Interleukin-13 Versus Interleukin-5: A Comparison of Molecular Targets in Biologic Therapy for the Treatment of Severe Asthma. *Curr Opin Allergy Clin Immunol*. 19(1):30-37. PMID 30407206.



NAME	Cesar A. Arias, MD, PhD
E-MAIL	Cesar.Arias@uth.tmc.edu
PRIMARY DEPT.	Internal Medicine
SECTION	Infectious Disease

ACADEMIC APPOINTMENT

Professor,
Department of
Internal Medicine

ADDITIONAL TITLE

Graham Fellow,
DuPont Chair
in Infectious Disease,
School of Public Health,
The University of Texas
Health Science Center
at Houston

RESEARCH INTERESTS

Mechanism of Antibiotic Resistance

Translational Studies, Including Genomics of Antimicrobial Resistant Organisms

Clinical Studies on the Impact of Antibiotic Resistance in Clinical Outcomes

RESEARCH OPPORTUNITIES FOR TRAINEES

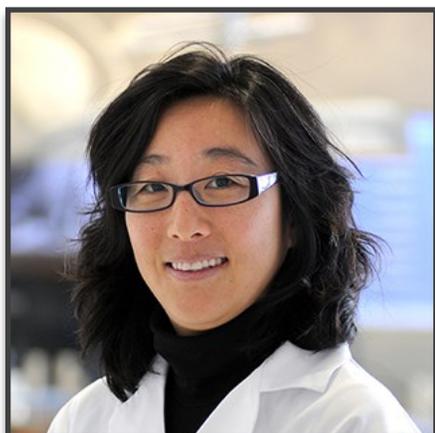
- Characterizing novel and emergent mechanisms of resistance
- Developing mechanistic-based diagnosis of AMR pathogen
- Characterize the genomic epidemiology of AMR pathogens
- Describe the clinical outcomes of infections caused by multi-drug resistant organisms

RELEVANT PUBLICATIONS

Arias CA, Panesso D, McGrath DM, et al. (2011). Genetic Basis for in Vivo Daptomycin Resistance in Enterococci. *N Engl J Med.* 365(10):892-900. PMID 21899450.

Rossi F, Diaz L, ... Arias CA. (2014). Transferable Vancomycin Resistance in a Community-Associated MRSA Lineage. *N Engl J Med.* 370(16):1524-31. PMID 24738669.

Khan A, Davlieva M, ... Arias CA. (2019). Antimicrobial Sensing Coupled with Cell Membrane Remodeling Mediate Antibiotic Resistance and Virulence in *Enterococcus faecalis*. *Proceedings of the Nat Academy Sci U.S.A.* 201916037. doi: 10.1073/pnas.1916037116.



NAME	Elizabeth Yu Chiao, MD, MPH
E-MAIL	EChiao@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Infectious Diseases

ACADEMIC APPOINTMENT

Professor,
Department of Medicine

ADDITIONAL TITLE

Scientist, Clinical
Epidemiology and
Comparative Effectiveness
Program, Center for
Innovations in Quality,
Effectiveness and Safety,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

HIV-Related Cancers *Epidemiology*
Virally Mediated Cancers *Cancer Prevention*
Cancer Outcome Disparities

RESEARCH OPPORTUNITIES FOR TRAINEES

- Metabolic effects of HIV on cancer incidence
- Outcomes of HIV-related Kaposi sarcoma
- Second cancers after non-Hodgkin lymphoma in people living with HIV
- Impact of HIV on head and neck cancer outcomes

RELEVANT PUBLICATIONS

White DL, Oluyomi A, ... Chiao E. (2019). Incidence of AIDS-Related Kaposi Sarcoma in All 50 United States From 2000 to 2014. *J Acquir Immune Defic Syndr.* 81(4):387-394. PMID 31242141.

El-Mallawany NK, Kamiyango W, Villiera J, et al. (2019). Kaposi Sarcoma Herpesvirus Inflammatory Cytokine Syndrome-like Clinical Presentation in Human Immunodeficiency Virus-Infected Children in Malawi. *Clin Infect Dis.* pii: ciz250. [Epub ahead of print]. PMID 31102440.

Stier EA, Lensing SY, ... Chiao E. (2019). Prevalence of and Risk Factors for Anal High-Grade Squamous Intraepithelial Lesions in Women Living with Human Immunodeficiency Virus. *Clin Infect Dis.* pii: ciz408. [Epub ahead of print]. PMID 31292602.



NAME	Barbara Trautner, MD, PhD, FIDSA
E-MAIL	Trautner@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Infectious Diseases; Health Services Research

ACADEMIC APPOINTMENTS

Professor,
Departments of Medicine,
Surgery, and
Molecular Virology &
Microbiology

ADDITIONAL TITLES

Director of Clinical and Health
Services Research,
Department of Surgery, Baylor
College of Medicine;
Investigator, Behavioral Health
and Implementation Program,
Center for
Innovations in Quality,
Effectiveness and Safety,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Urinary Tract Infections
Healthcare-Associated Infections
Antimicrobial Stewardship
Bacteriophage
Asymptomatic Bacteriuria

RESEARCH OPPORTUNITIES FOR TRAINEES

- VA HSR&D: Less is more: improving antibiotic stewardship for asymptomatic bacteriuria
- AHRQ Ro1: reducing use of antibiotics without a prescription among outpatients in a safety net healthcare system
- VA RR&D: Bacteriophage to treat multidrug-resistant UTI in persons with spinal cord injury

RELEVANT PUBLICATIONS

Drekonja DM, Grigoryan L, ... Trautner BW. (2019). Teamwork and Safety Climate Affect Antimicrobial Stewardship for Asymptomatic Bacteriuria. *Infect Control Hosp Epidemiol.* 40(9): 963-967. PMID: 31339085.

Trautner BW, Prasad P, Grigoryan L, et al. (2018). Protocol to Disseminate a Hospital-Site Controlled Intervention Using Audit and Feedback to Implement Guidelines Concerning Inappropriate Treatment of Asymptomatic Bacteriuria. *Implement Sci.* 13(1):16. PMID: 29351769.

Grigoryan L, Germanos G, ... Trautner BW. (2019). Use of Antibiotics Without a Prescription in the U.S. Population: A Scoping Review. *Ann Intern Med.* PMID:31330541.



NAME	Nicola (Nick) Hanania, MD, MS
E-MAIL	Hanania@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Pulmonary, Critical Care, and Sleep Medicine

ACADEMIC APPOINTMENT

Associate Professor
Department of Medicine

ADDITIONAL TITLES

Director, Airways Clinical
Research Center,
Baylor College of Medicine;

Member, Faculty Senate,
Baylor College of Medicine;

Director, Asthma and COPD
Clinic, Ben Taub Hospital;

Deputy Editor, Respiratory
Medicine;

Associate Editor, Current
Opinion in Pulmonary
Medicine;

Editorial Board, Pulmonary
Pharmacology and
Therapeutics; Therapeutic
Advances in Chronic Disease

RESEARCH INTERESTS

Airway Pharmacology *COPD Comorbidities*
Airway Biomarkers *Bronchodilators*
Cohort Studies, Clinical and Translational Trials:
*Asthma and Chronic Obstructive Pulmonary
Disease (COPD)*

RESEARCH OPPORTUNITIES FOR TRAINEES

- Asthma and COPD clinical trials and observational studies
- Access to large databases of ongoing studies in asthma and COPD (ACRC Network and COPD Gene Network)
- Quality improvement projects – COPD readmissions
- Aging in asthma and COPD

RELEVANT PUBLICATIONS

Parulekar AD, Martinez C, ... Hanania NA. (2017). Examining the Effects of Age on Health Outcomes of Chronic Obstructive Pulmonary Disease: Results From the Genetic Epidemiology of Chronic Obstructive Pulmonary Disease Study and Evaluation of Chronic Obstructive Pulmonary Disease Longitudinally to Identify Predictive Surrogate Endpoints Cohorts. *J Am Med Dir Assoc.* 18 (12):1063-68. PMID: 29169736.

Hanania NA, Korenblat P, Chapman KR, et al. (2016). Efficacy and Safety of Lebrikizumab in Patients with Uncontrolled Asthma (LAVOLTA I and LAVOLTA II): Replicate, Phase 3, Randomised, Double-Blind, Placebo-Controlled Trials. *Lancet Respir Med.* 4(10):781-96. PMID: 27616196.

Hanania NA, Wenzel S, Rosen K, et al.. (2013). Exploring the Effects of Omalizumab in Allergic Asthma: An Analysis of Biomarkers in the EXTRA Study. *Am J Respir Crit Care Med.* 187(8):804-11. PMID: 23471469.



NAME	Farrah Kheradmand, MD
E-MAIL	FarrahK@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Pulmonary, Critical Care, and Sleep Medicine

ACADEMIC APPOINTMENTS

Nancy Chang, PhD
Endowed Professorship
for the Biology of
Inflammation Center,
Department of Medicine;

Co-Director, Clinical Scientist
Training Program, Graduate
School of Biomedical Sciences

ADDITIONAL TITLE

Staff Physician,
Pulmonary and Critical Care,
Medical Service Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Immune Cells in Lung Disease: COPD and Asthma

Inflammation and Biomarkers in the Lungs

Models of Lung Cancer

RESEARCH OPPORTUNITIES FOR TRAINEES

- Lung immunity under normal or diseased conditions
- Immune responses to lung tumors

RELEVANT PUBLICATIONS

Madison MC, Landers CT, ... Kheradmand F. (2019). Electronic Cigarettes Disrupt Lung Lipid Homeostasis and Innate Immunity Independent of Nicotine. *J Clin Invest.* 129(10):4290-4304. PMID 31483291.

You R, DeMayo FJ, ... Kheradmand F. (2018). IL17A Regulates Tumor Latency and Metastasis in Lung Adeno and Squamous SQ.2b and AD.1 Cancer. *Cancer Immunol Res.* 6(6):645-657. PMID 29653981.



NAME	Ivan O. Rosas, MD
E-MAIL	Ivan.Rosas@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Pulmonary, Critical Care, and Sleep Medicine

ACADEMIC APPOINTMENTS

Professor and
Section Chief,
Department of Medicine

RESEARCH INTERESTS

The long-term goal of our pulmonary research program is to better understand pathologic mechanisms that contribute to development and progression of parenchymal lung disease thereby enabling us to develop novel diagnostic and therapeutic strategies. Our clinical research studies have shown that subclinical pulmonary fibrosis can be detected in at-risk populations including families affected with pulmonary fibrosis, smokers and patients affected with rheumatoid arthritis. These studies are transformative as they provide critical evidence that prevention is feasible in common parenchymal lung diseases associated with high morbidity and mortality. Our mechanistic research studies focus on Idiopathic Pulmonary Fibrosis (IPF) and Chronic Obstructive Pulmonary Disease (COPD), we employ cutting edge genomic technologies and animal models to determine how select molecular derangements contribute to development and progression of lung disease.

RESEARCH OPPORTUNITIES FOR TRAINEES

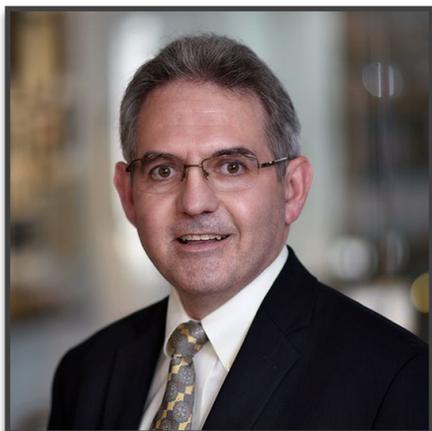
- Detection of subclinical interstitial lung disease in at risk populations using molecular markers
- Phenotypic and molecular overlap of primary and inflammatory lung fibrosis
- Validation of IPF and COPD molecular targets identified through single-cell RNA sequencing

RELEVANT PUBLICATIONS

Doyle TJ, Hunninghake GM, Rosas IO. (2012). Subclinical Interstitial Lung Disease: Why You Should Care. *Am J Respir Crit Care Med.* 185(11):1147-53. PMID 22366047.

Morse D, Rosas IO. (2014). Tobacco Smoke-Induced Lung Fibrosis and Emphysema. *Annu Rev Physiol.* 76:493-513. PMID 24274738.

Adams TA, Schupp JC, Poli S, et al. (2019). Single Cell RNA-seq Reveals Ectopic and Aberrant Lung Resident Cell Populations in Idiopathic Pulmonary Fibrosis. <http://dx.doi.org/10.1101/759902>.



NAME	Rolando E. Rumbaut, MD, PhD
E-MAIL	RRumbaut@bcm.edu
PRIMARY DEPT.	Medicine
SECTION	Pulmonary, Critical Care, and Sleep Medicine

ACADEMIC APPOINTMENTS

Professor,
Departments of Medicine and
Pediatrics;

Vice Chair for Research,
Department of Medicine

ADDITIONAL TITLES

Deputy Associate Chief of
Staff/Research,
Michael E. DeBakey
VA Medical Center;

Director, Center for
Translational Research
on Inflammatory Diseases
(CTRID)

RESEARCH INTERESTS

Sepsis

Microvascular Thrombosis

Inflammation

RESEARCH OPPORTUNITIES FOR TRAINEES

- Microvascular thrombosis in experimental sepsis
- Mechanisms of platelet-endothelial interactions in inflammation
- Role of platelets in inflammation

RELEVANT PUBLICATIONS

Cardenas EI, Breaux K, Da Q, et al. (2018). Platelet Munc13-4 Regulates Hemostasis, Thrombosis and Airway Inflammation. *Haematologica*. 103(7):1235-1244. PMID 29674495.

Lam FW, Cruz MA, Parikh K, Rumbaut RE. (2016). Histones Stimulate von Willebrand Factor Release in Vitro and in Vivo. *Haematologica*. 101(7):e277-9. PMID 27013650.

Lam FW, Vijayan KV, Rumbaut RE. (2015). Platelets and Their Interactions with Other Immune Cells. *Compr Physiol*. 5(3):1265-80. PMID 26140718.



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PRIMARY DEPT.	Medicine
SECTION	Nephrology

ACADEMIC APPOINTMENT

Associate Professor,
Department of Medicine

ADDITIONAL TITLE

Nephrologist,
Medical Care Line,
Michael E. DeBakey
VA Medical Center

RESEARCH INTERESTS

Health services research in nephrology

Cardiovascular disease and obesity in CKD

Systematic reviews in nephrology

RESEARCH OPPORTUNITIES FOR TRAINEES

- Trainees would have the opportunity to work on various research projects using large national databases
- Participate and lead systematic reviews

RELEVANT PUBLICATIONS

Navaneethan SD, Akeroyd JM, Ramsey D, et al. (2018). Facility-Level Variations in Kidney Disease Care among Veterans with Diabetes and CKD. *13(12):1842-1850*. PMID 30498000.

Navaneethan SD, Jolly SE, Schold JD, et al. (2017). Pragmatic Randomized, Controlled Trial of Patient Navigators and Enhanced Personal Health Records in CKD. *Clin J Am Soc Nephrol. 12(9):1418-1427*. PMID 28778854.

Schauer PR, Bhatt DL, Kirwan JP, et al. (2017). Bariatric Surgery Versus Intensive Medical Therapy for Diabetes - 5-Year Outcomes. *N Engl J Med. 376(7):641-651*. PMID 28199805.