Faculty Mentors

Faculty in the Emory Division of Pulmonary, Allergy, Critical Care and Sleep Medicine have a long history of working closely with students, residents and fellows on scholarly projects. While not exhaustive, the list below should provide a sense of the breadth of faculty within the Emory Division of Pulmonary, Allergy, Critical Care and Sleep Medicine who are available to serve as mentors, their areas of research interest, and a list of recent projects on which they have worked with trainees. All of these faculty are very enthusiastic about working with trainees in a mentoring capacity.

Sara Auld, MD, MSCR
Assistant Professor of Medicine

My research interests are focused around the global TB and HIV epidemics. I have extensive experience in the clinical epidemiology of TB, drug-resistant TB, and TB/HIV coinfection. More recently, I have also begun to explore various aspects of lung health in TB infection, including lung immunology and pulmonary impairment during and after TB infection. I would be happy to meet with trainees about potential projects and explore any interests in these areas.

Recent Publications:

Research Roadmap for Tuberculosis Transmission Science: Where Do We Go From Here and How Will We Know When We're There?, Auld SC, Kasmar AG, Dowdy DW, Mathema B, Gandhi NR, Churchyard GJ, Rustomjee R, Shah NS. J Infect Dis. 2017 Nov 3;216(suppl_6):S662-S668


Nancy A. Collop, MD
Professor of Medicine and Neurology
Director, Emory Sleep Center
Director, Sleep Medicine Fellowship

I came to Emory in 2010 from Johns Hopkins, where I was director of the Johns Hopkins Hospital Sleep Laboratory. I am the director of the Emory Sleep Center, which is an independent cost center and part of Emory Healthcare and Emory University. The Emory Sleep Center moved to Executive Park in February 2015. The Emory Sleep Center has 9 faculty members, and includes 9 sleep laboratory bedrooms, home sleep apnea testing and has its own durable medical equipment program. In 2012, we initiated our sleep medicine fellowship program which has 3 fellows per year.

My area of scholarly interest is in diagnosing and treatment of sleep disorders with a special interest in sleep disordered breathing. I am interested in new technologies to diagnose and monitor sleep and sleep disorders. My other passion is to continue to enhance our
sleep medicine fellowship program to attract the best and brightest residents and fellows to our program, particularly those with academic interests.

**Research Papers with mentees**


**Recent reviews / book chapters with mentees**


**Other recent manuscripts**

- Aurora RN, Collop NA, Jacobowitz O, Thomas SM, Quan SF, Aronsky AJ. Quality measures for the care of adult patients with obstructive sleep apnea J Clin Sleep Med. 2015 Mar 15;11(3):357-83
- Colvin L, Collop N. Commercial motor vehicle driver obstructive sleep apnea screening and treatment in the US: An update and recommendation overview. A. J Clin Sleep Med 2015 (Epub ahead of print)
After completing residency and fellowship at Emory University, I joined the faculty at Emory in 2009. After joining the faculty, I was primarily based at Grady Memorial Hospital where I conducted clinical research and attending on the Pulmonary Consult Service and Medical Intensive Care Unit. I obtained a NIH Clinical Research Loan Repayment grant at the end of fellowship and maintained consistent funding until 2013, when I moved to the Atlanta VA. In 2011, I was awarded a KL2 grant and completed a Masters of Science and Clinical Research through Emory Rollins School of Public Health with a focus on clinical-translational research on the HIV-lung, and investigating mechanistic pathways by which HIV impairs lung host immunity. I am currently a staff physician at the Atlanta VA, where I attend on Pulmonary Consults and the MICU services. I have continued investigations in the field of HIV lung disease through several clinical trials which have now expanded to other areas of interesting including metabolomics, lung microbiome, Mycobacterium Tuberculosis, and other chronic lung diseases such as chronic obstructive lung disease (COPD). These projects have broad implications for our understanding of how we can limit the consequences of HIV on the lung, and decrease the lung-specific morbidity and mortality for individuals living with HIV despite adherence to anti-retroviral therapy.

I am also the Associate Program Director for the Pulmonary & Critical Care Medicine Fellowship Program and as such am very involved in the teaching and mentoring of our fellows. I have also mentored undergraduate, graduate and post-graduate trainees at Emory University both in clinical and scientific arenas. In addition, I currently participate and chair a number of committees both in the Department of Medicine, the School of Medicine and in national and regional scientific societies such as the American Thoracic Society and the Southern Society of Clinical Investigation.

Recent publications and projects with mentees:

13. SK Cribbs and JM Beck. “Microbiome in the pathogenesis of cystic fibrosis and lung transplant-related disease”. Transl Res. Accepted April 2016
Dr. Daniels joined faculty in 2017. Her main research interests are in the areas of medical education, ultrasound and simulation. Her research is focused on development and use of low fidelity procedural models used in the education of medical trainees. Current models include central line access, arterial line access, dialysis line access, extra-corporeal cardiopulmonary membrane oxygenation (ECMO) access, thoracentesis and chest tube placement.

She also has an interest in quality improvement with a focus on improving efficiency in processes and systems that are time sensitive, including massive blood transfusions and extra-corporeal cardiopulmonary resuscitation (ECPR). Other areas of interest include improving the assessment and management of intensive care unit delirium and post intensive care syndrome.

Recent research projects with mentees

- Richard Ramonell MD, Meredith Greer MD, Matthew Schimmel: Sonographic-based Training Analogue Built for Insertion and Guidance of Residents and Interns Training Evaluation (STABInG RITE)
- Richard Ramonell MD, Matthew Wiepking MD, Ashley Binder MD: Low-fidelity gelatin models in the use of procedural simulation training for extra-corporeal cardiopulmonary membrane oxygenation (ECMO) access placement
- Matthew Reaven MD: Teacher or learner: Evaluating the ability of self-directed procedural simulation training in attending physicians

Recent publications


Dr. Esper joined the faculty at Emory in 2008, primarily based at Grady Memorial Hospital, where she conducted clinical research and attend on the Pulmonary consult service and in the Medical Intensive Care Unit. After joining the faculty, she obtained my Masters of Science in Clinical Research (MSCR) from Emory and since then she has served on the Thesis Committee for multiple MSCR students in addition to mentoring MSCR students. In addition to her work with post-graduate trainees (residents and fellows), she also serves on the Medical Student Research Committee and has worked with medical students on Discovery Phase projects.

Her research interests include clinical and translational research in critically ill patients, with a specific interest in sepsis and the acute respiratory distress syndrome (ARDS). Currently, her work focuses on translational research in sepsis-induced ARDS, where she is
investigating the role of alveolar macrophage function and phenotype, and conducting biomarker and metabolomics studies in ARDS. She has also conducted and collaborated on work that includes epidemiology research, observational studies, and randomized, controlled trials in critically ill patients.

**Recent research projects with mentees**

- Ralitza Martin, MD (pulmonary fellow): Role of metabolomics in sepsis-induced
- Ralitza Martin, MD (pulmonary fellow): The RAGE axis in sepsis-induced
- Sarah Prebil, MD (past resident): The safety of bronchoscopy in critically ill patients

**Recent reviews/book chapters with mentees**


**Other recent manuscripts**

In my twenty years at Emory my greatest passion has been mentoring students, residents and fellows in both clinical medicine and in biomedical research. I have mentored more than twenty post-doctoral fellows (including both MD and PhD trainees) and many more residents and students. As a co-director of a training grant from the NIH, this mentoring includes having minority medical students from Morehouse each summer. In parallel, I have mentored Emory medical students through the Discovery Phase program and literally dozens of medical residents have performed research electives with me. Over the years I have lost count of how many have presented at regional or national meetings, but it must be fifty or more.

For students and residents doing short-term research experiences I focus on instilling a sense of how medical research progresses; specifically, how to ask and answer important questions. Although there is always an element of learning some investigative techniques, the focus is on the intellectual approach and the excitement of pursuing new (and often unexpected) findings. Trainees working with me and my collaborators can work on projects anywhere along the research spectrum, from cell culture to animal models to clinical trials. I know first-hand the value of a positive research experience with mentors who taught me to ‘think and question’ and not just ‘learn techniques’. My greatest thrill is when a student, resident or fellow gets excited about their research project and presents it at a meeting and/or helps publish the work as a co-author. Although many of my trainees are now actively pursuing academic careers as physician-scientists, many are in clinical academic positions or private practice. I consider all of them to be great successes.

Recent students and residents I mentored:

- Nnamdi Azih - current Morehouse medical student
- Eric Kerchberger - Emory medical student and now a resident in emergency medicine at Ohio State
- Thomas Middour - Emory medical student and now a medicine resident at Tulane
- Mohita Singh - Emory medical student and now a medicine resident at Baylor
- Victor Tseng - Emory resident and now a pulmonary fellow at Colorado
- Rich Ramonell - current Emory resident
- Jeff Talbot - current Emory resident

Current physicians I am mentoring:

**Viranuj Sueblinvong, MD** (Emory faculty member)

- Sueblinvong V, Tseng V (Emory resident), Smith T, Mills, ST, Neujahr DC and Guidot DM: TGFβ1 mediates alcohol-induced Nrf2 suppression in lung fibroblasts. Alcoholism: Clinical and Experimental Research. 2014 Nov;38(11):2731-42. PMID: 25421510 PMCID: PMC4244649

**Sushma Cribbs, MD, MSc** (Emory resident, fellow and now assistant professor)

Ashish Mehta, MD, MSc (Emory resident, fellow and now assistant professor)


Bashar Staitieh, MD (Emory fellow and joined the faculty 9-1-2015)


Wendy Neveu, MD, PhD (Emory resident and now fellow)


Ed Egea, MD (Emory resident and now fellow).

Jenny Han, MD, MSc
Assistant Professor of Medicine

Dr. Han, who was born in Philadelphia, completed her undergraduate at Northwestern University and began her caregiving career as a substance abuse counselor for teenage girls. She went on to become an EMT and paramedic before attending medical school at Ross University. She graduated with highest honors and then trained in internal medicine at Henry Ford Hospital in Detroit, going on to become chief resident.

During her residency Dr. Han conducted a medical education study for which she received the David C. Leach Award from the Accreditation Council for Graduate Medical Education in 2010. She completed fellowship training in pulmonary and critical care medicine at Emory University, where she served as chief fellow. In addition, she obtained her master's degree in science at Emory Rollins School of Public Health. Currently, she works at Grady Memorial Hospital. Dr. Han actively participates in teaching medical students, residents and fellows at Emory.

Dr. Han's translational and clinical research career has focused on defining the relationship between vitamin D status and infection and the antimicrobial peptide pathway with the overall clinical goal to improve host immunity in immunocompromised patients with respiratory infections.

- Han JE, Martin GS. Rational or rationalized choices in fluid resuscitation? Critical Care 2010;14:1006
• Han JE, Ziegler TR. Vitamin D supplementation in sepsis and critical illness: where are we now? Am J Respir Crit Care Med. 2014 Sep 1;190(5):483-5

C. Michael Hart, MD
Associate Chief of Staff for Research
Atlanta VA Medical Center
Professor and Assistant Dean for VA Research
Emory School of Medicine

Mike Hart, MD, a native of Birmingham, AL, received a BS degree from Duke University, MD from the University of Alabama at Birmingham, and residency training in Internal Medicine and fellowship training in Pulmonary and Critical Care Medicine at the University of Florida. Dr. Hart served as a faculty member in the Division of Pulmonary and Critical Care Medicine at Indiana University in Indianapolis for ten years before moving to his current institution, Emory University, in 2000. He has served in a variety of leadership roles at these institutions including Pulmonary and Critical Care Medicine Fellowship Program Director and as Pulmonary Section Chief at the Atlanta VA for nine years. His laboratory which focuses on vascular biology has been funded by the NIH and VA for over twenty years. Current areas of investigative focus include studies examining the ability of the nuclear hormone receptor, peroxisome proliferator-activated receptor gamma, to serve as a therapeutic target that regulates vascular dysfunction. The major focus of these studies is to better define basic mechanisms of disease in order to enable the development of more effective therapeutics.

Trainees in the Hart lab (since 2006)- NEXT PAGE
<table>
<thead>
<tr>
<th>TRAINEE</th>
<th>LEVEL</th>
<th>YEARS</th>
<th>DEGREE</th>
<th>PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Polikandriotis</td>
<td>Post-doctoral</td>
<td>4/04 - 3/06</td>
<td>PhD, Ohio State, 2004</td>
<td>Chronic alcohol ingestion alters reactive species production in lung</td>
</tr>
<tr>
<td>Rachel Nisbet</td>
<td>Post-doctoral</td>
<td>7/06 - 7/08</td>
<td>MD, Emory University, 2003</td>
<td>PPAR gamma in pulm HTN</td>
</tr>
<tr>
<td>Carmello Blanquicicett</td>
<td>Post-doctoral</td>
<td>8/06 - 12/09</td>
<td>PhD, Univ. Alabama Birmingham, 2005</td>
<td>Mechanisms of ethanol-induced lung dysfunction</td>
</tr>
<tr>
<td>Matt Wagner</td>
<td>Post-doctoral</td>
<td>8/07 - 3/10</td>
<td>PhD. Georgia Tech, 2006</td>
<td>Mechanisms of ethanol-induced lung dysfunction</td>
</tr>
<tr>
<td>Alex Gluzman</td>
<td>Post-doctoral</td>
<td>8/07 - 6/09</td>
<td>MD, Medical College Georgia, 2003</td>
<td>Role of PPAR gamma in pulm HTN</td>
</tr>
<tr>
<td>Helen Ward</td>
<td>Post-doctoral</td>
<td>8/07 - 6/09</td>
<td>MD, Medical College of Virginia, 1999</td>
<td>Role of PPAR gamma in pulm HTN</td>
</tr>
<tr>
<td>Clintonia Richards</td>
<td>Post-doctoral</td>
<td>01/09 - 06/11</td>
<td>PhD, Univ. Alabama Birmingham, 2008</td>
<td>PPARg regulates reactive species in diabetes</td>
</tr>
<tr>
<td>Samantha Yeligar</td>
<td>Post-doctoral</td>
<td>8/09 - present</td>
<td>PhD, University Southern California, 2009</td>
<td>NADPH oxidase in alcohol-induced alveolar macrophage dysfunction</td>
</tr>
<tr>
<td>Bum-Yong Kang</td>
<td>Post-doctoral</td>
<td>2009 - present</td>
<td>PhD, Seoul National University, 2002</td>
<td>The role of miRNA in pulmonary vascular dysfunction</td>
</tr>
<tr>
<td>Cherry Wongtrakool</td>
<td>Post-doctoral</td>
<td>2009 - present</td>
<td>MD, Cornell University, 1997</td>
<td>Mechanisms of nicotine induced lung disease</td>
</tr>
<tr>
<td>David Green</td>
<td>Post-doctoral</td>
<td>1/10 - present</td>
<td>MD, Univ. Alabama at Birmingham, 2005</td>
<td>Mechanisms of hypoxic induction of Nox4 in pulmonary hypertension</td>
</tr>
<tr>
<td>Sherry Adesina</td>
<td>Pre-doctoral</td>
<td>9/10 - 7/15</td>
<td>BS, University of Georgia, 2006</td>
<td>Effects of Trx 1 and Trx 2 Antioxidant Pools on Pulmonary Hypertension</td>
</tr>
<tr>
<td>Kaiser Bijli</td>
<td>Post-doctoral</td>
<td>9/12 - present</td>
<td>PhD, University of Delhi, 2002</td>
<td>The role of Pyk2 in pulmonary vascular dysfunction</td>
</tr>
<tr>
<td>Justine I. Blum</td>
<td>Pre-doctoral</td>
<td>6/14 - 11/14</td>
<td>BS, Dartmouth College, 2011</td>
<td>Regulation of HIF1α by PPARg</td>
</tr>
<tr>
<td>Kristal Carthan</td>
<td>Post-doctoral</td>
<td>1/13 - 12/14</td>
<td>MD, Loyola University, 2008</td>
<td>Mechanisms of right ventricular hypertrophy</td>
</tr>
<tr>
<td>Abubakr Chaudhry</td>
<td>Post-doctoral</td>
<td>2015-20</td>
<td>MD, Allama Iqbal Medical College, Pakistan, 2009</td>
<td>Regulation of hypertrophic transcriptional pathways in the right ventricle</td>
</tr>
<tr>
<td>Esha Oommen</td>
<td>Post-doctoral</td>
<td>2017-2018</td>
<td>MD, Temple University, 2012</td>
<td>Mitochondrial dysregulation in pulmonary hypertension</td>
</tr>
<tr>
<td>Aaron Trammell</td>
<td>Post-doctoral</td>
<td>2016 - present</td>
<td>MD, Univ North Carolina, 2008</td>
<td>Metabolic dysfunction and pulmonary hypertension</td>
</tr>
<tr>
<td>Victor Tseng</td>
<td>Post-doctoral</td>
<td>2018 - present</td>
<td>MD. Univ Wisconsin, 2012</td>
<td>Hyaluronan in PH metabolism and pathogenesis</td>
</tr>
</tbody>
</table>
Potential projects in the Hart lab generally focus on in vitro and in vivo pre-clinical models of disease. The specific focus of these projects varies depending on the ongoing collaborations in the lab and on the interests of the trainee. Most recent projects have focused on various aspects of pulmonary hypertension, including epidemiology. Current efforts are being directed to supplement projects in pre-clinical models with clinical data and specimens.

**Recent publications (trainee names in italics)**


Andre Holder, MD, MSc
Assistant Professor of Medicine
Division of Pulmonary, Critical Care, Allergy and Sleep Medicine

Dr. Holder came to Emory in 2014 to begin his career as clinician scientist faculty. After finishing a combined emergency medicine and internal medicine residency in 2009, he completed a Masters of Science in Clinical Research Methodology at Albert Einstein College of Medicine in New York. His research interest are prediction and management of sepsis progression.

During his clinical fellowship in critical care medicine, he did an NIH T32 research fellowship at the University of Pittsburgh. His focus at that time was broadened to hemodynamic monitoring and management of critical illness in general. He performed animal studies in their cardiopulmonary lab using dynamic complex physiologic features as markers for disease progression in a hemorrhage model.

Dr. Holder's current research at Emory focuses on understanding the progression of inflammatory diseases that cause critical illness, with a specific emphasis back on sepsis pathophysiology. Through collaborations with colleagues in the Department of Biomedical Informatics, he employs advanced data-driven techniques such as nonlinear modeling and machine learning approaches to predict the trajectory of complex syndromes like sepsis. His main research focus is proving whether temporal trends in physiologic and laboratory biomarkers, and complex measures of physiologic variability can predict sepsis-related organ dysfunction, cardiovascular collapse (shock), and death. Other research and clinical interests include cardiopulmonary resuscitation, and appropriate use of hemodynamic monitoring and cardiopulmonary interaction in critical illness.

Recent manuscripts:


Potential mentee projects

- Trended clinical and laboratory data to predict sepsis & septic shock
- Risk stratification through modified simple clinical biomarkers
- What is the best definition for sepsis?
William R. Hunt, MD
Assistant Professor of Medicine
Division of Pulmonary, Allergy, Critical Care & Sleep Medicine
Director, Emory Adult Cystic Fibrosis Center

Over the course of my combined internal medicine and pediatrics residency training I developed a particular interest and experience in chronic childhood illnesses, especially cystic fibrosis (CF). I was mentored by Dr. Irena Petrache and explored the role of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) dysfunction in pulmonary endothelial cell barrier integrity. Following pursuit of fellowship research training in adult pulmonary and critical care medicine I continued to sharpen hypothesis-driven research design. I trained in the laboratory of Dr. Nael McCarty, director of Emory+Childrens” Center for Cystic Fibrosis and Airways Disease Research, under the direct mentorship of Dr. Nael McCarty and Dr. Jason Hansen. Our research focused on innate immunity within the CF lung environment in the setting of CF-related diabetes (CFRD). Specifically, our focus has been the development and characterization of a murine model of CFRD and exploring the mechanisms of CFRD’s impact on lung function (immune cell activity and redox signaling in particular). I continue to collaborate with researchers within Emory+Childrens” Center for Cystic Fibrosis and Airways Disease Research on mechanisms of CF lung dysfunction as well as clinical outcomes.

My clinical interests is with CF and lung transplantation. I am the current medical director for the adult CF program at Emory University. I also serve as the associate director for the CF@lanta Research and Development Program (RDP) Clinical and Translational Core. Additionally, I serve as a sitting member for the CF@lanta RDP and the CF@lanta CF Scholars steering committees. My research interests include assessing objective measures of transition readiness in CF, experimental model systems for CF, CFRD lung disease and CF-specific lung transplant outcomes.

Recent Research Projects with Trainees

- Christopher Reed, Brigham Young University -CFTR Extracellular Redox Regulation
- Brandi Middour-Oxler, Augusta State- Assessing Objective Measurements of Transition Readiness in Cystic Fibrosis
- Leah Cohen, Emory University- Assessment of FEV1 Variability in Cystic Fibrosis Management
- Ellie Kaplan, Emory University- Assessment of Patient and Care Giver Cystic Fibrosis Specific Genetic Knowledge
- Laina Lusk, Emory University- Assessment of Educational Intervention for Cystic Fibrosis Specific Genetic Knowledge Retention
- Tina Kushary, Emory University - Assessment Cystic Fibrosis Specific Genetic Knowledge and Family Planning Perceptions
- Haider Ali, Emory University - Assessment of Cystic Fibrosis Bone Mineral Density Pre-Lung Transplant with Post-Lung Transplant Outcomes
- Jonny Salud - Assessment of Geographic Location and Social Predictors for Cystic Fibrosis Clinic Utilization
- Dhurv Patel- Assessment of Pre-Transplant Diagnosis on Post-Transplant Lung Pathology

Recent Abstracts and Manuscripts with Trainees


8. Hunt, W.R., Bergman, S., Middour-Oxler, B. Participation in a formalized CF transition program is associated with decreased pulmonary exacerbations. *Pediatr Pulmonol* 2017; Supplement 47:508A

Michael F. Iademarco, MD, MPH
Captain, U.S. Public Health Service
Adjunct Assistant Professor of Medicine
Director, Center for Surveillance, Epidemiology, and Laboratory Services, CDC

I came to CDC and Emory in 1998 as a medical-epidemiologist and pulmonologist. Since then, I have served in four positions in CDC's Division of Tuberculosis Elimination, as HHS's Health Attach in Hanoi, and throughout as staff physician at the Atlanta VA Medical Center, attending in the MICU. In 2014, I came to lead CDC's Center for Surveillance, Epidemiology, and Laboratory Services, home of iconic scientific services such as MMWR, Vital Signs, The Guide to Community Preventive Services, WONDER, Epi Info, National Notifiable Disease Surveillance System, the National Syndromic Surveillance Program, Office of Public Health Genomics, and Epidemic Intelligence Service. I also hold a joint appointment in the Rollins School of Public Health.

My area of scholarly interest is in tuberculosis, surveillance, diagnostic tests, and public health policy. Trainees who wish to work with me must have an Emory Pulmonary faculty co-mentor; should have an interest in surveillance, epidemiology, laboratory systems, workforce, or public health information dissemination; and be willing to work on research teams. Prior experience in data science and analytic statistical programming would be useful. Alternatively, I am available to a trainee/faculty pair as a consultant.

- CSELS information
- Publications on Google Scholar

Imran Iftikhar, MD
Associate Professor of Medicine, Department of Medicine
Section Chief - Pulmonary, Allergy, Critical Care and Sleep Medicine - Emory Saint Joseph’s Hospital

I started my Emory career in May 2016. I am primarily based at Emory Saint Joseph”s hospital but also have clinics at the Emory Sleep Center (12 EP). The primary focus of my research and scholarly activities has been related to the health outcomes of sleep disordered breathing. I specialize in the statistical techniques of meta-analysis, from the simple direct pair-wise meta-analysis to the most complicated network comparative meta-analyses utilizing both Bayesian and Frequentist methodologies. In my brief academic tenure, I have always welcomed and encouraged residents and fellows in learning the statistics of pairwise and network comparative meta-analysis.

Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals (trainees names in italics):


Book Chapters:

i. Iftikhar I, Khan, M. Plasma Levels of MCP-1 and Adiponectin in Obstructive sleep apnea. Best of Sleep Medicine 2011. (published)

ii. Chapter: Obesity Hypoventilation Syndrome

Volume: Respiratory Manifestations of Neuromuscular and Chest Wall Diseases 2017 (Guest Editor: Dennis F McCool, MD)

Book: CLINICS IN CHEST MEDICINE
Abstract Presentations at National/International, Regional, and Institutional Conferences:

[* presented; mentees names in italics]

International:


**Regional:**


**Institutional:**
27) AbdelMannan D, Ahmed M, Woyshville M, Ricaurte B, Iftikhar I. The Incidence of the Metabolic Syndrome as a Function of Severity in Obstructive Sleep Apnea. Annual Research Day competition at Fairview Hospital, Cleveland Clinic June 2006. [oral presentation]

28) *Iftikhar I, Tisch D, Blankfield RP. Meta-analysis: Evaluation of hemodynamic variables of antihypertensive drugs facilitates in choosing optimal antihypertensive therapy. Annual Research Day competition at Fairview Hospital, Cleveland Clinic 2008. First position in competition. [oral presentation]

29) *Iftikhar I, Hays E, Iverson MA, Magalang UJ, Maas AK. Effect of oral appliances on blood pressure in patients with obstructive sleep apnea: A systematic review and meta-analysis. Annual VA research Day at WJB Dorn VA Medical Center. 4/15/2012. [poster presentation]


Mentees and their current positions:

PhD Students Directly Supervised:

Time in Bed Extension in Older Adults: Impact on Cognition, Inflammation, and Mood. This study was applied for NIH F31 Training Grant for Alexandria Reynolds (Ph.D student), University of SC, School of Public Health. 2014-2015

Role: Thesis Mentor.

Current position: Assistant Professor at University Virginia-Wise.

Residency Program:

3. Jake Krieg, MD. Research mentor (2011-2012). Current position: Assistant Professor, Pulmonary Medicine, University of South Carolina, Columbia SC
4. Mohammad Imtiaz, MD. Research mentor (2012-2013). Current position: Assistant Professor, Pulmonary Medicine, Albany Medical College, Albany, NY
8. Meredith Donley, MD. Research mentor (2013-2015). Current position: 2nd year fellow, Pulmonary Medicine, University of South Carolina/Palmetto Health Richland, Columbia SC
10. Mohammad Al-Jaghbeer, MD. Research mentor (2014-2015). Current position: 2nd year fellow, Pulmonary Medicine, University of South Carolina/Palmetto Health Richland, Columbia SC

Dean P. Jones, PhD
Professor of Medicine
Director, Clinical Biomarkers Laboratory

Dean Jones is a Professor in the Department of Medicine (Pulmonary Division) with secondary appointments in Biochemistry and Pediatrics at Emory University, Atlanta, GA. He received a PhD in Medical Biochemistry from Oregon Health Sciences Univ., Portland, in 1976. He studied nutritional biochemistry at Cornell University and molecular toxicology at the Karolinska Institute as a post-doctoral fellow. He joined Emory University as an Assistant Professor of Biochemistry in 1979, was subsequently promoted to Associate Professor in 1985 and Professor of Biochemistry in 1990. He became Professor of Medicine and Director of the Clinical Biomarkers Laboratory in 2003. He is the Integrated Health Sciences Facility Core Director of the NIEHS-supported HERCULES Exposome Research Center and directs metabolomics cores for NIH-funded programs in Children’s Health Exposure Analysis Resource, Red Blood Cell Stability for Transfusion and the Malaria Host-Pathogen Interaction Center. His research career has included studies of mitochondrial mechanisms of toxicity, redox systems biology, oxidative stress and antioxidant systems, compartmentation of metabolism and high-resolution metabolomics. He currently is focused on applications of ultra-high resolution mass spectrometry for precision medicine, with a long-term goal to use this as a foundation to sequence the exposome. These methods allow measurement of thousands of low abundance metabolites, including those derived from the innate metabolism, environment, diet, drugs and microbiome. He has recently focused on low-level environmental exposures, such as dietary cadmium, which can impact onset and progression of chronic diseases, and has active NIH-supported research programs on the metabolomics of cardiovascular, lung, eye, neurodegenerative and infectious diseases and aging. He has extensive collaborations to study diverse populations and disease processes.

Recent trainees he mentored

- Douglas Walker, PhD candidate studying use of high-resolution metabolomics for biomonitoring environmental exposures and linking exposures to health outcomes
- Ken Liu, PhD candidate studying pharmacometabolomics of adverse drug reactions
- Joshua Chandler, PhD, Post-doctoral fellow studying integrated omics of inflammation-derived oxidants in lung cells and in vivo
- Jolyn Fernandez, PhD, Post-doctoral fellow studying mitochondrial oxidative stress induced by manganese and developing integrated models of redox proteomics, metabolomics and transcriptomics
- Xin Hu, PhD, Post-doctoral fellow studying integrated omics of low-dose environmental cadmium toxicity specifically related to pro-inflammatory and profibrotic signaling in the lung

Potential Projects

Many laboratory projects are possible, but a better training structure would probably involve collaboration with Young-Mi Go, PhD, Shuzhao Li, PhD, and/or a clinical scientist using our “omics analytical capabilities to address highly relevant clinical questions. This can be done for almost any of the relevant clinical aspects of the Division, i.e., Pulmonary, Allergy, Critical Care and Sleep Medicine. The main limitation is that the time frame to initiate and complete a clinical protocol usually makes it impractical to do this in its entirety as a Fellow. Hence, we would want to take advantage of ongoing studies, sample repositories and existing data. Given the history of research in the Division and the existing collaborations and interactions with clinical scientists at other institutions, this mostly requires initiative to develop a workable plan.

Publications

A complete list of my published work:
Bum-Yong Kang, PhD
Assistant Professor of Medicine

I joined Emory University in 2009. I have intensively investigated novel approach microRNA analysis in pathogenesis of pulmonary hypertension (PH), leading not only to successful intra-institutional collaboration but also to research funding to elucidate the role of microRNA of human diseases. I received my Ph.D. in molecular population genetics from Seoul National University, South Korea and was a Postdoctoral Fellows in the Department of Biology at Dalhousie University, Canada (2004-2005) and in the Department of Medicine at University of Arkansas for Medical Sciences (2006-2009). Currently, my research career focuses on the examination of the mechanisms of PH with sickle cell disease (SCD). Most recently, I have extended my novel work on pulmonary vascular biology and endothelial-to-mesenchymal transition (EndoMT) using miRNAs and long non-coding RNAs (lncRNAs) to the field of hypoxia-induced PH and SCD with PH. My long-term research goal is to create my own model in the pathogenesis of SCD-PH; how does pulmonary vascular remodeling generate in the pulmonary vasculature? To elucidate this question, this model will use integrated–OMICS data: functional genomics, proteomics, microRNAs, long non-coding RNAs, and metabolomics analysis, lead not only to identifying innovative approaches to the treatment of pulmonary vascular disease, but also to clarifying mechanisms by which PPARγ can favorably modulate the expression of proliferative mediators in SCD-PH.

Other recent manuscripts:


Jordan A. Kempker, MD, MSc  
Assistant Professor of Medicine

In 2015 I joined Emory faculty after completing my residency and fellowship training here. During my fellowship training I completed a Masters of Science and Clinical Research through Emory Rollins School of Public Health and my research interests are in intersections of health services research and data science in the topics of sepsis and acute respiratory distress syndrome. I have mentored three Emory School of Medicine Discovery students and worked with several fellows helping with their research projects.

Trainees who wish to work with me will be involved with managing and analyzing large healthcare databases and it is important to have some background in computer science, particularly in the SAS or R languages. Those seeking training in the MSCR program will achieve the sufficient background knowledge and skills for this. Even for trainees who do not work primarily with me, I am happy to serve in a limited role as a consultant to meet a few times and review your project’s study design, data management procedures, and overall goals for feasibly creating scientific output in fellowship. For those trainees with any interest at all in the MSCR, I’d also encourage you to set up a meeting with me to discuss the commitments, expectations, and other features of the program.

Primary Projects


· Kempker JA, West KG, Kempker, RR, Siwamogsatham, Alvarez JA, Tangpricha V, Ziegler TR, Martin GS. A Prospective Observational Study of Vitamin D and Hospital-Acquired Infections in a Medical Intensive Care Unit. PLOS ONE. 2015 Apr 7;10(4):e0122136.

· Kempker JA, Magee MJ, Martin GS. Low Vitamin D is Associated with Increased Risk of Hospitalization with an Infection Among Medicare Beneficiaries. Am J Respir Crit Care Med 2015; 191: A1329 (poster and now under review at American Journal of Epidemiology)

Assisted Projects


Michael Koval, PhD  
Professor of Medicine and Cell Biology  
Associate Division Director for Research

I have a long standing interest and expertise in studying cell membranes, with a particular emphasis in understanding the molecular basis for formation and remodeling of intercellular junctions. I received my Ph.D. in Cell Biology from Johns Hopkins University and was a Postdoctoral Fellow at Washington University. From there I became a faculty member in the Department of Physiology at the University of Pennsylvania with a joint appointment at the Institute for Environmental Medicine. About a decade ago I joined the Department of Medicine and Emory Alcohol and Lung Biology Center at Emory University. I also have a joint appointment in the Department of Cell Biology.
A major research direction in my lab is to understand how tight junctions regulate the pulmonary air/liquid barrier. We use molecular and cell biological approaches to define roles for several tight junction proteins (claudins, occludin, ZO-1, ZO-2) in normal lung barrier function and in pathologic conditions such as acute respiratory distress syndrome (ARDS). A long term goal of our research is to identify control points which augment barrier function as a means to improve the outcome of patients with ARDS and other forms of lung injury, particularly in the context of alcoholic lung syndrome and HIV-associated lung diseases. More recently, we have begun to examine the impact of Cystic Fibrosis (CF) on airway barrier function with particular emphasis on how the airway barrier and epithelial cell repair is impaired in CF-related diabetes.

Recent research projects with mentees (since 2010, mentees underlined):

- Ward, C., B. L. Schlingmann, A. A. Stecenko, D. M. Guidot, M. Koval. 2015. NF-κB inhibitors impair lung epithelial tight junctions in the absence of inflammation. Tissue Barriers, 3:e982424. PMCID: PMC4372020

Recent reviews / book chapters with mentees (since 2010)

- Mitchell, L. C. and M. Koval. 2010. Specificity of interaction between Clostridium perfringens enterotoxin and claudin-family tight junction proteins, Toxins, 2, 1595-1611. (peer reviewed)

Lab website: [http://kovallab.org/](http://kovallab.org/)
I came to Emory in 2012 as a Physician-Scientist in Pulmonary Immunology. With my unique expertise, my focus at Emory University was to build a three-pronged approach for excellence in (1) Translational Research, (2) Clinical Service, and (3) commercialization of University technologies through small business opportunities.

In research, I have the expertise, leadership, and training in the biology of human blood antibody secreting cells (ASC) and BM plasma cells. As a translational scientist, I have focused my laboratory to study the human long-lived plasma cells (LLPC) in the bone marrow with the goal to understand novel intrinsic and extrinsic mechanisms of their survival. Our work identified the human LLPC phenotype using multi-color flow cytometry, morphology, and viral-specific Elispots from measles and mumps specific plasma cell responses in only one unique CD19-CD38hiCD138+ BM subset. Using a combination of next generation sequencing to follow VH clones in the plasma cell subsets combined with state-of-the art proteomics, we directly linked the of serum viral-antibodies to the one unique cellular compartment (LLPC) in the human BM. This work identifies the human LLPC compartment for the first time and provides the basis to identify novel mechanisms of plasma cell survival for the persistence of protective antibody secretion.

Within the past 3 years, I have also built the Adult Asthma Allergy and Immunology Program at Emory University with new clinical service line to provide state-of-the-art care for patients with severe asthma and complex allergic and immunological diseases. This program works closely with established expertise at Emory in Pediatric Immunodeficiency, Otolaryngology in the Rhinology and Voice Clinics, Interventional Pulmonary, and Dermatology. The goals of this program are to provide novel immune therapies through clinical trials and compassionate use. In addition to providing excellence in clinical care, I have developed a translational research program to understand the basic immune cellular mechanisms of IgE mediated allergic diseases with support from both NIH and Pharmaceutical research grants.

Lastly, I have been working at the interface of academic and small business enterprises to further commercialize university-based technologies with support from the Emory Technology Transfer Office, Georgia Research Alliance (GRA) programs, Center for Disease Control (CDC) and Small Business Innovative Research grants. We have been developing novel immune-based diagnostic methods for infectious diseases and new pharmaceutical research reagents to enhance antibody secretion and survival of plasma cells for the biologics industry.

Publications:


*F. E-H Lee, EE Walsh, AR Falsey, N Liu, D Liu, A Divekar, JE Snyder, TR Mosmann, The Balance between Influenza- and RSV-specific CD4 T cells Secreting IL-10 or IFNg in Young and Healthy-elderly Subjects. Mech Ageing Dev, 2005 Nov. 126(11), 1223-1229. PMID: 16098562

AA Divekar, DM Zaiss, F-EH Lee, D Liu, DJ Topham, AJ Sijts, TR Mosmann, Protein Vaccines Induce a Higher Frequency of Uncommitted IL-2''IFNg' Mouse and Human Memory CD4 T cells, whereas Infection Induce More Effector IFNg' Producing Cells. J Immunol, 2006 Feb 176(3) 1465-73. PMID: 16424174


Walsh EE, Peterson DR, Kalkanoglu A, Lee FE, Falsey AR, Viral Shedding and Immune Responses to RSV infection in Older Adults, JID 2013 May;207(9):1424-32 2013 Feb 19 [Epub ahead of print] PMID: 23382572


Greg Martin, MD, MSc
Professor of Medicine
Associate Division Director for Critical Care
Director of Research, Emory Critical Care Center

I completed my undergraduate studies at Duke University; medical school, residency and subspecialty fellowship training at Vanderbilt University and a post-graduate Master of Science degree at Emory University. I have worked clinically in different settings since my arrival at Emory, and I currently the section chief and MICU director at Grady. My career focus has been on conducting clinical research in critically ill patients, particularly those with sepsis and acute respiratory distress syndrome (ARDS) and building a team of faculty to work together on related projects and mentor students and trainees in conducting clinical critical care research. I also serve as the Director of Research for the Emory Center for Critical Care (ECCC), the Director of the Emory/Georgia Tech Predictive Health Institute and the affiliated Center for Health Discovery and Well Being, and Director for the Clinical Research Network as part of the Georgia Clinical and Translational Science Alliance (Georgia CTSA) led by Dr. W. Robert Taylor, Division Director of Cardiology.

Dr. Martin’s personal research includes clinical and translational research in critically ill patients, with his primary interests being in sepsis, organ dysfunction syndromes and acute respiratory distress syndrome (ARDS). Dr. Martin has conducted work that spans epidemiology and health services research through biomarker trials to randomized, controlled treatment trials in critically ill patients. In his roles for both the Division and the ECCC, Dr. Martin helps to coordinate critical care research at Emory, including the Emory Program in Critical Care. Dr. Martin is clinically active in both pulmonary and critical care medicine and is an active teacher in the Pulmonary & Critical Care fellowship program.

Recent research projects with mentees

- Chris Seymour, MD, MSc (Pulmonary/CC fellow at University of Washington): “Marital status and the epidemiology and outcomes of sepsis.” Published in CHEST and available at: http://www.ncbi.nlm.nih.gov/pubmed/20173054
- Jenny Han, MD, MSc (Pulmonary/CC fellow): “Evaluating Simulation-Based ACLS Education on Patient Outcomes: A Randomized, Controlled Pilot Study.” Published in J Grad Med Educ and available at: http://www.ncbi.nlm.nih.gov/pubmed/25210581


Jenny Han, MD: “Medical Outcomes in ACLS Knowledge (MOCK): The Effect of Standardized ACLS Simulation Training.” Published in the Journal of Graduate Medical Education.


Recent reviews / book chapters with mentees:


Recent abstracts

- Martin R, Martin GS, Harris F, Brown L, Esper AM. The Rage Signaling Pathway In Sepsis-Induced ARDS: Role Of HMGB1 And MMPs. Am J Respir Crit Care Med 2015; 191: A2372.

Ashish Mehta, MD, MSc
Assistant Professor of Medicine
Director, Atlanta VA Medical Center Medical Intensive Care Unit

I have been at Emory since 2003, when I started my intern year. I completed residency and fellowship in the Emory program and joined the faculty of the VA section in 2009 with a funded 2-year career development grant. I completed the Masters of Science in clinical research (MSCR) program in 2013 and received a 5-year career development award grant from the VA. My research involves clinical translational projects evaluating the role of alcohol abuse in predisposing individuals to pneumonia and acute lung injury. Specifically, I investigate the role of zinc deficiency and oxidative stress.
on alveolar macrophage immune function and am in the middle of a large 5 year randomized clinical trial evaluating the role of dietary antioxidants and zinc on lung immune function.

I have not previously worked with fellows, but would be available as a secondary mentor and for collaboration on projects that involve the role of alcoholism in lung disease. I have co-mentored medical students who work in the laboratory setting and I have a strong interest in clinical research. I am the medical director of the MICU at the VA and have a strong clinical interest in critical care ultrasound. I have experience with writing IRB protocols and would be available as a resource or mentor for any fellows who may have an idea for a research project.

Recent research project with mentee

Recent book

Other recent manuscripts

David J. Murphy, MD, PhD
Assistant Professor of Medicine
Patient Safety Officer, Emory Healthcare
Director of Research, Emory Healthcare Office of Quality
Director of Quality, Emory Critical Care Center

I joined the Emory University faculty in 2011 where I enjoy pursuing my passion for improving healthcare quality and patient safety through a variety of clinical, administrative, and research activities. Prior to coming to Emory, I completed my undergraduate education at Johns Hopkins University; medical school at New Jersey Medical School, Internal Medicine residency at Robert Wood Johnson Medical School; and pulmonary critical care fellowship training at the Johns Hopkins University. While a fellow at Johns Hopkins, I also completed my doctor of philosophy in Clinical Investigation from the Bloomberg School of Public Health. My research focuses on advancing healthcare quality and patient safety by improving the translation of evidence into practice. I apply a range of clinical research and health services research methods to better evaluate healthcare delivery and outcomes, to assess barriers to best practices, and to improve healthcare delivery across organizations. Several of my clinical research areas include healthcare associated conditions, transfusion medicine, sepsis, and acute respiratory distress syndrome (ARDS).

Recent mentees (medical students/physicians):
- **Ananda Chowdhury, MD**: Mentored as resident in internal medicine; now a pulmonary fellow at Cleveland Clinic
- **Michael Evans, MD**: Mentored as medical student; now a resident in internal medicine at Emory
- **Husam Kheir, MD**: Mentored as research volunteer; now a medical student at NYU
- **Peter Lyu, MSPH**: Mentored as Rollins School of Public Health MSPH student; now a PhD candidate at Harvard University
- **Lacey Loomer, MSPH**: Mentored as Rollins School of Public Health MSPH student; now a PhD candidate at Brown University
- **Kevin Seitz MD, MSc**: Mentored as medical student and clinical investigation (MSc) student; now a resident in internal medicine at University of Washington
• Ogbonna Ogbu, MBBS, MSc: Mentored as fellow in pulmonary and critical care and clinical investigation (MSc) student; now physician and critical care quality leader at Piedmont Health

• Michelle Ossmann, RN, MSN, PhD: Mentored as doctoral student in Georgia Tech School of Architecture; now Director of Healthcare Environments at Steelcase Health

• Casey Cable, MD: Mentoring as a pulmonary and critical care fellow, and a Masters in Clinical Investigation student

• Byron Crowe: Mentoring as a medical student

Recent peer-reviewed publications with mentees (in italics):


• Murphy DJ, Ogbu OC, Coopersmith CM. ICU Director Data: Using data to assess value, inform local change, and relate to the external world. [Review] Chest 2015; 147 (4): 1168-1178. PMID: 25846533


• Ogbu OC, Martin GS, Murphy DJ. A Few mL”s of Prevention: Lung Protective Ventilation Decreases Pulmonary Complications. [Invited Editorial] Critical Care Medicine 2015; 43(10):2263-4. PMID: 26376257


• Seitz K, Sevransky JE, Martin GS, Roback JD, Murphy DJ. Restrictive Transfusion Protocols in Critical Care: Do They Affect Transfusion Practice? Critical Care Medicine 2016; (In Press). PMID: 27632673


Recent posters and presentations with mentees (in italics):

• Ahmed H, Husain A, Martin GS, Sevransky J, Murphy, DJ. Process of care elements associated with the failure to provide lung protective ventilation for patients with ARDS. Chest 2013: 375A.


• Holder AL, Murphy DJ, Overton EC, Lyu P, Martin GS, Buchman TG. Organ failure data over time in the critically ill: At what cost, and to what benefit? (Abstract) Society of Critical Care Medicine 201

Ramzy H. Rimawi, MD
Assistant Professor of Medicine

After completing my training in Infectious Diseases and Critical Care Medicine, I came to Emory as a clinical educator in 2014. My current clinical focus involves nosocomial infections, infection control and antibiotic stewardship in the ICU. During my fellowship, I focused on strengthening antibiotic stewardship efforts through penicillin skin testing and taught hundreds of medical students,
residents, pharmacists, fellows, faculty, and nurses how to properly perform and interpret the procedure. This instrument became widely used at Vidant Medical Center to improve antibiotic stewardship efforts and dramatically reduce healthcare costs.

I also held teaching seminars for ICU providers on optimal antimicrobial therapies for certain diagnoses based on up-to-date guidelines and evidence based research. I wrote and edited a book, Bedside Critical Care Guide, in which I helped teach medical students, residents, and fellows how to write book chapters in scholarly texts. I was heavily involved in teaching medical students, residents, and fellows common procedures performed in the ICU. I also enjoy teaching trainees the basics of microbiology and antimicrobial pharmacology. My teaching in these areas have been recognized and I have gratefully been awarded for these projects. As I am still in the beginning of my career, I am actively involving myself in a variety of research projects, teaching opportunities, and institutional committees.

Trainees who wish to work with me should have an interest in proposing, creating, implementing and measuring the effectiveness of novel techniques in education. While the ideal domain for this education would be in infectious disease and critical care or evidence-based medicine, I am willing to help negotiate with School of Medicine leadership if your passion lies in another area.

Recent research projects with mentees:

- NYU Lutheran Prasad Award of Teaching Resident of the Year, 2010-2011
- NYU Lutheran Prasad Award of Teaching Resident of the Year, 2011-2012
- North Carolina Infectious Disease Society Best Research Travel Award, 2012-2013
- 27th Annual Yash Kataria Research Day Young Trainee Award, 2014

Recent reviews / book chapters with mentees


Other recent manuscripts


Ruxana T Sadikot, MD, MRCP (UK)
Professor of Medicine, Emory University
Section chief, Pulmonary and Critical Care, Atlanta VAMC

I joined the Division of pulmonary and critical care medicine at the Emory University in July 2014 and currently serve as the section chief at the Atlanta VAMC. For most of my career as a faculty I have worked on research projects with graduate and medical students, residents and fellows. I was the Associate Director for the Pulmonary Fellowship program at the University of Illinois in Chicago (2005-2012) and played an active role in clinical and research training of residents and fellows. Extramurally I have served as a member of transition and training (MITT) committee of the American Thoracic Society (2007-2015) and was an executive member of the American Lung Association in Chicago (2006-2012) where I was responsible for organizing research seminars for students, residents and fellows. My mentees have presented abstracts at National and International meetings and have successfully published case reports, reviews and original research articles.

The overarching focus of my research is defining lung immune response and mechanisms of lung injury. I am currently funded by the Department of Veterans affairs. In particular my laboratory is focused on understanding the host pathogen interactions in difficult to
treat infections such as P. aeruginosa, Achromobacter and NTM. We study the role of lipid mediators (prostaglandins)/PPAR signaling and superimmunoglobulin receptor TREM-1 in macrophages in lung infections. By defining the immune response we aim to develop immunomodulatory strategies in patients with difficult to treat or resistant infections. My clinical interests include infections in patients with non-CF bronchiectasis and select immunocompromised patients. I have mentored several graduate students, residents, post-doctoral fellows and junior faculty through my career.

Selected recent publications with mentees (for a full list Pubmed Sadikot R):

- Yuan Z, Mehta H, Roman R, Mohammed K, Najmunissa N, Brantly M, Sadikot RT.

David Schulman, MD, MPH
Professor of Medicine
Associate Division Director for Education
Director, Pulmonary and Critical Care Medicine Fellowship

I came to Emory in 2001 as a clinician educator. Since then, I have served as medical director of the Emory Sleep Laboratory; my current clinical focus is on the diagnosis and management of sleep disorders as part of the Emory Sleep Center. From the beginning of my Emory career, I have taken an active role in the training of pulmonary and critical care medicine fellows, and took over the role of Program Director in 2006. In addition to my work with post-graduate trainees, I direct the undergraduate medical curricula in evidence-based medicine and pulmonary disease, and serve on a number of institutional committees related to education, including the Progress and Promotions Committee and the Executive Curriculum Committee of the School of Medicine. Extramurally, my work in education has been recognized with a Fellows Education Award from the American Thoracic Society and the Parker J. Palmer Courage to Teach Award from the Accreditation Council for Graduate Medical Education.

My area of scholarly interest is in identifying and validating optimal methods of teaching and assessment, as is evidenced by my recent mentorship of fellows, residents and students, as documented below. Trainees who wish to work with me should have an interest in proposing, creating, implementing and measuring the effectiveness of novel techniques in education. While the ideal domain for this education would be in pulmonary medicine or evidence-based medicine, I am willing to help negotiate with School of Medicine leadership if your passion lies in another area.

Recent research projects with mentees

- Nikita Desai, MD: "Gender Differences in Residency Evaluations."
- Bashar Staitieh, MD, and Ramin Saghafi, MD: "A Hypothesis-Driven Physical Diagnosis Curriculum for Pulmonary Fellows Improves Performance of Medical Students." Accepted for publication in the Annals of the American Thoracic Society.
- Saumya Gurbani (MD, PhD student): “Retrospective Analysis of Time-of-Day vs. Student Performance on Medical School Exams.”
• John Diehl and Ryan Smith (MD students): “Use of Supplemental Resources during the Foundations Phase of the Undergraduate Medical Curriculum.”

• Kelly Arps (MD student): “Creating Novel Teaching Materials for an Undergraduate Evidence-Based Medicine Curriculum.” Published two separate teaching aids on MedEdPortal.

• Jenny Han, MD: “Medical Outcomes in ACLS Knowledge (MOCK): The Effect of Standardized ACLS Simulation Training,” Published in the Journal of Graduate Medical Education.

**Recent reviews / book chapters with mentees**


**Other recent manuscripts**


- "Organization and structure for sleep medicine programs at academic institutions: Part 2--goals and strategies to optimize patient care, education, and discovery." Chesson AL Jr, Chervin RD, Benca RM, Greenough GP, O'Hearn DJ, Auckley DH, Littner M, Mullington JM, Malhotra A, Berry RB, Malhotra RK, Schulman DA. Sleep. 2013 Jun 1;36(6):


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**Jon Sevransky MD, MHS**

Professor of Medicine  
Director, EUH MICU  
Assistant Director, Emory Center for Critical Care

My clinical, administrative and research interests center around the treatment of patients with life threatening illness. In addition to my administrative roles at Emory, I serve as the associate editor for the journal Critical Care Medicine, the editor for the Society for Critical Care Medicine’s podcasts, section lead for the mechanical ventilation and sedation for the Surviving Sepsis Campaigns, associate chair for the United States Critical Illness and Injury Trials Group, and chair of the Internal Medicine section of the society for Critical Care Medicine. I have mentored more than 15 medical students, residents, fellows and junior faculty.

My primary research interests are in the treatment of patients with sepsis and the complications of sepsis including sepsis induced Acute Respiratory Distress Syndrome and septic shock. This includes both clinical trials, implementation science work (with David Murphy), attempts to identify sepsis patients in the prehospital phase (with Carmen Polito) and attempts with limit the development of ARDS in sepsis patients. I have also recently led, with Greg Martin as co-PI, a multicenter study looking at the association of ICU...
structure and organization with in patient mortality. This work has led to some interest in examining factors that might modify effects of novel agents in clinical trials, and we are currently exploring ancillary studies from this database. A third new interest (with Mike Lava) focuses around identifying more patient centered outcomes for critical care trial primary outcome measures.

Recent research projects with mentees

- Carmen Polito MD Confronting ethical and regulatory complexity to advance pre-hospital sepsis research- under review
- David Murphy MD, PhD Using Incentives to quality while reducing cost: a Quasi-experimental evaluation of an ICU quality improvement program Critical Care Medicine 2015 in Press
- David Murphy MD PhD Development of a Core Clinical Dataset to Characterize Serious Illness, Injuries and Resource Requirements for Acute Medical Responses to Public Health Emergencies Crit Care Med 2015 in press
- Raghu Seethala MD Early risk factors and the role of fluid administration in developing the acute respiratory distress syndrome in septic patients- submitted
- Jessie Chai MD What is a Full Time Equivalent for a Critical Care Physician under review

Other recent manuscripts 2014-2015


Viranuj Sueblinvong, MD
Assistant Professor of Medicine
Associate Director, Emory Adult Cystic Fibrosis Program

I came to Emory in late of 2008 to establish basic science research program. My current research focus is on understanding the mechanism by which alcohol and/or aging predispose the lung toward fibroproliferative repair following acute lung injury in mice. My clinical focus is on caring for adults with Cystic Fibrosis. We have multidisciplinary approach to improving care for these patients both in and out of the hospital.
Recent research publication with mentees

- Viranuj Sueblinvong, Victor Tseng (Medical Resident, now a Pulmonary Fellow), Ramin Saghaﬁ (Medical Resident, Pulmonary Fellow), Stephen T. Mills, David C. Neujahr, and David M. Guidot. TGFb1 mediates alcohol-induced Nrf2 suppression in lung ﬁbroblasts. Alcoholism: Clinical and Experimental Research. 2014 Nov;38(11):2731-42. PMID 25421510.

Abstracts presented at national and international meetings with mentees:


Roy L. Sutliff, PhD
Associate Professor of Medicine
Faculty Associate for International Programs, Laney Graduate School

I came to Pulmonary Division at Emory in 2005 as an Assistant Professor. Since arriving at the Pulmonary Division, I have been consistently funded by the NIH and other Research Foundations. I am very active in the Molecular and Systems Pharmacology Program that is part of the Graduate Division of Biological and Biomedical Sciences and serve on the Executive Board. In addition to my research, I oversee the International Programs of the Laney Graduate School and am active in international recruiting and developing international exchanges.
My area of research interest is in cardiovascular pathophysiology. Vascular reactivity is a major determinant of physiological parameters such as blood pressure. Constriction of the vessel results in an increased blood pressure whereas, dilation of the vessel decreases blood pressure. Endothelial cells line the blood vessel and can regulate diameter of blood vessels by releasing agents that constrict or relax vascular smooth muscle cells. Research in my laboratory focuses on examining the interaction between endothelial cells and vascular smooth muscle cells and how certain pathophysiological conditions impair vascular function. The four areas that are most heavily studied are 1) the mechanisms of pulmonary vascular disease and accelerated atherosclerosis in HIV infection; 2) the role of PPARγ and its subsequent effects on NADPH oxidases in regulating endothelial function in pulmonary hypertension 3) the mechanisms underlying blood storage disease (in collaboration with Dr. John Roback, Pathology) and 4) the development novel rho kinase inhibitors for the treatment of pulmonary hypertension (a collaboration with Anacor Pharmaceuticals). Models include wild type and knockout or transgenic rodent models. Models may be challenged with a high fat diet to study diabetes or exposed to chronic hypoxia as a stimulus for the development of pulmonary hypertension. Approaches include everything from whole animal physiology to understand the effects of these models on blood pressure or pulmonary hypertension, to isolated tissue studies examining vascular contractility, to cellular preparations to examine biochemistry.

Recent research projects with mentees:


Other recent manuscripts:


Aaron W. Trammell, MD
Assistant Professor of Medicine
Division of Pulmonary, Allergy, Critical Care & Sleep Medicine

I joined the Emory University faculty in 2015. Prior to coming to Emory, I completed internship and residency in Internal Medicine and fellowship in Pulmonary and Critical Care Medicine at Vanderbilt University, finishing in 2014. For one year between fellowship and joining the Emory faculty, I worked with a well-known pulmonary vascular disease clinician and expert in clinical trials at Baylor College of Medicine in Houston, TX.

My clinical focus is caring for patients with various forms of pulmonary vascular disease including pulmonary arterial hypertension, a disease which bridges the fields of cardiology and pulmonology. My patient care activities are at The Emory Clinic and Emory University Hospital. As a fellow, my mentored research project involved the study of interactions of metabolism and pulmonary vascular disease development utilizing rodent and cell models with a focus on molecular biology. With these and other projects, I’ve had the chance to organize and present research at local and international meetings, and write case reports, reviews and book
chapters for publication. Through these, I have cultivated an inquisitive spirit and continue to build my skills of asking and answering important questions. At present and going forward, I plan a more clinical and translational research focus. Specifically, I hope to use next generation sequencing and -omics technologies to shed light on the mechanisms underlying clinically recognized differences in how patients with pulmonary arterial hypertension respond to available therapy.

In addition to caring for patients with pulmonary hypertension and striving to advance understanding of pulmonary vascular disease, I greatly enjoy working with learners of all levels “ and this allows me to be an active ongoing learner myself! As a junior faculty member, I am fortunate to be involved in both clinical and didactic teaching. In addition to my clinical service, I give part of the pulmonary module for medical students.

My pursuit of utilizing -omics technologies for pulmonary vascular disease development is in its early stages. For currently interested students, residents and fellows, I have several clinical research pursuits that involve utilizing existing data or electronic records systems to define how pulmonary hypertension is recognized and treated at Emory and the Atlanta VA. Beyond my existing ideas, I am always willing to help develop a trainee’s research interests, especially those exploring a topic related to pulmonary vascular disease.

Recent manuscripts and abstracts for which I had significant involvement:

Cherry Wongtrakool, MD  
Assistant Professor of Medicine  
Associate Program Director, Pulmonary and Critical Care Medicine Fellowship  
Staff Physician, Atlanta VA Medical Center

My research interests span the intersection between tobacco/nicotine use and lung physiology and disease. I studied lung development using animal and cell culture models prior to arriving at Emory, particularly the importance of retinoic acid signaling in the differentiation and maturation of lung cells. Upon arriving at Emory, I began studying how prenatal nicotine exposure affects lung development since maternal smoking is a significant risk factor for the development of asthma. My publications demonstrate that prenatal nicotine exposure increases branching morphogenesis, the developmental program responsible for forming the conducting airways in the fetal lung. This disruption in normal development leads to an increased number of small airways, increased airway remodeling and increased airway hyperresponsiveness. These findings may partly explain why offspring of maternal smokers are more likely to develop asthma. In 2009, I moved my research program to the VA and began studying how chronic nicotine exposure increases airway hyperresponsiveness using animal and human cell culture models from asthmatic patients. Currently, my research focuses on the mechanisms through which chronic nicotine exposure stimulates nerve growth factor, a neurotrophin, to promote airway hyperresponsiveness and whether asthmatics have an accentuated response to nicotine exposure. I have also been involved in clinical studies. I was a site principal investigator for the Examinations of HIV Associated Lung Emphysema study led by Kristina Crothers at University of Washington. Although the study is no longer enrolling patients, the study is still open for data analysis. I am also a co-principal investigator for industry sponsored studies at the VA. The most recent study is whether benralizumab, a monoclonal antibody directed against the IL-5 receptor, will reduce exacerbations in patients with moderate to severe COPD.

I also serve as the Associate Program Director for the Pulmonary/Critical Care Medicine fellowship. As such, I am very interested in fostering trainee scholarship. I currently am the Medical Director of the Pulmonary Function Laboratory and have a clinical interest in lung physiology and cardiopulmonary physiology with exercise and would be very willing to discuss clinical projects related to either of these. Outside of Emory, I am also involved in the American Federation for Medical Research as the Southern Section Chair this year planning the 2016 Southern Regional Meeting in New Orleans. I have also been involved in the American Thoracic Society as a Planning Committee Member and a Program Committee Member for RCMB.

Recent research projects with mentees:

- Carolyn McCabe (Emory undergraduate student, currently in graduate school at University of Michigan): “Chronic Nicotine Exposure Decreases LC3 Associated Phagocytosis”
- Sierra Gross, MD (postgraduate, currently in Family Medicine residency in Nevada)
- Haixia Qin MD/PhD (Morehouse Internal Medicine Resident, currently in practice in California): "Into Thin Air-Air Embolism after CT Guided Transthoracic Needle Biopsy" - ACP National Poster Finalist
- Selected publications:
Samantha Yeligar, MS, PhD
Assistant Professor of Medicine

I joined Emory University’s Alcohol and Lung Biology Center as a postdoctoral fellow in 2009. I investigated the role of NADPH oxidases and TGFβ in ethanol-induced oxidative stress and alveolar macrophage dysfunction, leading to alcoholics’ increased susceptibility to respiratory infections. In 2011, I received an F32 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) to study the effect of peroxisome proliferator activated receptor (PPAR)γ ligands on alcohol-induced alveolar macrophage dysfunction. In January of 2013, Dr. Yeligar joined the faculty as an Associate in Medicine, where my F32 served as a natural extension to an American Heart Association National Scientist Development Grant in 2012 to study the effect of PPARγ ligands on alcohol-induced alveolar macrophage oxidative stress by modulating microRNA expression.

In September of 2013, I obtained a K99/R00 Pathway to Independence Award from the NIAAA to continue my studies on the role of microRNAs in modulating alcohol-induced alveolar macrophage oxidative stress and dysfunction. The novel treatment strategies I have studied to mitigate the detrimental effects of chronic alcohol ingestion on alveolar macrophage function have included S-adenosylmethionine, the critical antioxidant glutathione, and PPARγ ligands rosiglitazone and pioglitazone. In 2015, I was promoted to Assistant Professor of Medicine. My benchwork research focuses have developed into translational projects and ongoing collaborations with Dr. Ashish Mehta and Dr. Sushma Cribbs. My aim is to translate my studies into human therapeutic strategies in improving lung immunity in subjects with a history of alcohol use disorders (Dr. Mehta) and subjects with HIV positive status (Dr. Cribbs). My main research focus is to elucidate the molecular mechanisms contributing to alveolar macrophage oxidative stress and phagocytic dysfunction in various pathologies and to examine novel therapeutic strategies that can be translated into clinical studies to improve lung immunity.

Recent Relevant Publications


