Why choose UAB for your Pulmonary and Critical Care training?

2013 Highlights from the Division of Pulmonary, Allergy and Critical Care Medicine

Thank you for your interest in our fellowship program. These are exciting times for us and this document is meant to give you an update on some of the new initiatives and programs our division has established during the last few years.

The UAB Department of Medicine is one the largest and most diverse in the Nation. In 2012, our Department ranked 18th nationally in NIH funding and is one of the few departments in the country that saw significant growth during the last few years. Our Internal Medicine Residency Program attracts stellar candidates from medical schools across the country, and our division has been recognized for **19 years in a row as the best in education.**

Our Division has been training generations of pulmonary and critical care specialists for more than 40 years. Our graduates are highly competitive for private practice positions. Others have been very successful in pursuing academic careers. We are proud to offer a rigorous and broad clinical training along with ample opportunities for mentored projects in quality improvement as well as bench, translational and clinical research. The excellence of our clinical and clinical research programs have been recognized with our selection to membership in the NIH-funded COPD and IPF Clinical Research Networks (COPDnet and IPFnet, respectively) as well as the Cystic Fibrosis Foundation’s Therapeutics Development Network.

**Clinical Programs**

Our faculty has grown to more than 40 members. We have recently recruited faculty from prestigious institutions such as Harvard University, University of Colorado/National Jewish Health, Iowa University and the Cleveland Clinic. The Division has also matriculated UAB fellows into both research and clinical positions. These faculty are enhancing our pool of potential mentors for our present and future fellows.

Our lung transplant program has new leadership and is on track to perform more than 30 transplants this year. The fellows now have the opportunity of being exposed to all aspects of the lung transplantation process: evaluating patients in pre- and post-transplant clinics, managing post transplantation ICU care, and participating in organ procurement and harvesting.

Fellows gain expertise in the breadth of critical care medicine through our critical care rotations. At University Hospital, a fellow and faculty attending are paired with each of the two housestaff teams. Fellows also have the opportunity to work with our ICU nurse practitioner service, where an upper level fellow has graduated autonomy with appropriate attending supervision, oversight, and a focus on more fellow-centric
education. Our fellows rotate in the VA ICU, nested into the housestaff team. Fellows gain experience in airway management during dedicated rotations with the rapid response team. These experiences, combined with formal training and didactics in complex airway problems and ICU-related ultrasonography, create an excellent platform for clinical training in critical care medicine. For those interested in ICU-related quality and process improvement projects, there is opportunity for involvement in these endeavors.

We are expanding our interventional capabilities with a nearly 1 million dollar capital upgrade pending for our inpatient bronchoscopy suite. The expansion of our Interventional Bronchoscopy Program will allow trainees to be exposed to a number of different techniques in advanced bronchoscopy such as navigational bronchoscopy, rigid bronchoscopy, medical pleuroscopy, airway stenting, airway lesion ablative techniques including endobronchial laser therapy in addition to endobronchial ultrasound (EBUS), and bronchial thermoplasty (BT). Established clinical programs in environmental medicine, COPD, interstitial lung disease, cystic fibrosis, mycobacterial infections, and lung cancer allow our fellows to have a deep and diverse exposure to all aspects of pulmonary medicine.

First year fellows are now paired with a senior fellow and faculty mentor. This facilitates training in ICU-related procedures and helps the junior fellow to efficiently devise a self-learning plan and to eventually identify a mentor for either a research or a quality improvement project.

**National Leadership Positions**

A number of our faculty holds leadership positions in national and international organizations.

**Barney**

Outgoing Alabama governor for the ACCP

**Zhou**

Program Committee Member of ATS Assembly on Respiratory Structure and Function (RSF)

**Harding**

American College of Chest Physicians: Member Board of Regents, Member at Large

CHEST: Section Editor, Sleep Medicine Pearls
CHEST: Editorial Board member
Member, Nominations Committee
Member, Conflicts of Interest Ad-Hoc Committee

ABIM: Chair, Sleep Medicine Maintenance of Certification Committee

American Academy of Sleep Medicine: Member, Polysomnography Scoring Committee
American Journal of Clinical Sleep Medicine:
**Thannickal**
Regular Member, NIH/NHLBI Respiratory Integrative Biology and Translational Research Study Section
NIH/NHLBI Special Emphasis Panel; Clinical Trials Review Committee (CLTR)
ATS Scientific Advisory Committee
ATS Awards Committee
ATS Respiratory Cell and Molecular Biology Working Group on “Aging”
NIH Member, External Advisory Committee, NHLBI Lung Repair and Regeneration Consortium
Member, Leadership Council, American Lung Association of Alabama
Medical Advisory Council. The Global Fibrosis Foundation
Editorial Board, American Journal of Respiratory and Critical Care Medicine

**Dransfield**
ATS Nominating Committee & Program Committee for Clinical Problems Assembly
COPDnet

**Bailey**
Membership in the ATS Foundation Board of Directors

**de Andrade**
Steering Committee, NHLBI IPF Clinical Research Network (IPFnet)
Vice-Chair, ACCP Interstitial and Diffuse Lung Disease Network
Scientific Advisory Board, Pulmonary Fibrosis Advocates

**Rowe**
North American Cystic Fibrosis Foundation Conference Planning Committee
Inducted to the Southern society of Clinical Investigation
Nominated to the American Society of Clinical Investigation
CF Therapeutics Development Network Translational Working Group
Reviewer for NIH Study Section (ZRG1 CVRS-G(04) M Respiratory Diseases)
Reviewer for NIH/FDA Special Emphasis Panel (ZRG1 BDCN-A; P50)
Reviewer for NIH Special Study Section
Grant reviewer for *The Netherlands Organization for Health Research and Development*

**Antony**
AHA Grant Review Committee: Member
Research Advisory Committee, College of Medicine: Member
ATS Scientific Advisory Committee
ATS Research Advocacy Committee
ATS VA Research Advocacy Subcommittee
ATS Better Breathers Alliance Committee

NIH-ZRG1 AARR-K (58) R - PAR Panel: Multidisciplinary Studies of HIV/AIDS and Aging, Reviewer

NIH-ZAI1 MM-M (S1) 1 - Loan Repayment Program (LRP), Reviewer

NIH-ZRG1 AARR-E (2) M – AIDS and AIDS Related Research, Reviewer

NIH-ZAI1 DR-A (S1) – National Institute of Allergy and Infectious Diseases Special Emphasis Panel, Reviewer

NIH – ZA1 DR-A (S3)1 HIV Clinical Trial Units for NIAID Network, Chair

NIH – NHLBI R21/R33 National Heart, Lung, and Blood Institute Special Emphasis Panel, Reviewer

**Blalock**

- 2012/2013 Member, NHLBI Translational PPG Study Section
- Member, Scientific Review Board for Science Moving Towards Research Translation and Therapy (SMARTT, NHLBI)
- Editorial Board, Cellular and Molecular Neurobiology
- Editorial Board, Journal of Inflammation Research

**Cooper**

Veterans Administration Central Institutional Review Board – Member

**Lazenby**

Quality Improvement Committee of the American College of Chest Physicians

**Deshane**

Editorial Board of the American Journal of Respiratory Cell and Molecular Biology

**Steele**

Section Editor, *The Journal of Immunology*

Appointed Academic Editor for *PLoS ONE*
Reappointed to the Editorial Board of *The American Journal of Physiology*  
*Lung Cellular and Molecular Physiology*

Member, AIDS, Opportunistic Infections and Cancer study section, NIH

Ad hoc member, Vector and Eukaryotic Pathogens study section, NIH

Ad hoc member, NIAID U19 Centers of Excellence for Translational Research, NIH

Appointed Member, Lung Biomedical Sciences 2 Peer Review Committee,  
American Heart Association

### Research Programs

Our recently established NIH-funded T-32 *Training Program in Lung Biology and Translational Medicine* provides multidisciplinary training in a stimulating and collaborative environment that nurtures the development of highly competent and innovative biomedical research scientists. The program supports 2-3 years of structured and rigorous research training for M.D. or Ph.D. postdoctoral fellows. The multidisciplinary nature of the proposed training is fostered by the diversity of the 26 faculty mentors who hold primary appointments in nine UAB departments.

Additionally, our division has a well-organized biospecimen repository as well as a comprehensive clinical database that are available to support both fellow and faculty-initiated research projects. Please see below a list of some of our fellows’ publications from the last 2 years.

A few years ago, the NIH established a new funding mechanism called “Program Project Grants” believing that “a collaborative research effort can accelerate the acquisition of knowledge more effectively than a simple aggregate of research projects that have no interaction or thematic integration”. These are high profile, multi-investigator grants and our Division had a successful application for one themed around COPD.

In summary, our diverse clinical programs and our enhanced research portfolio offer ample opportunities to support the career development of physicians seeking training in pulmonary and critical care. Please feel free to learn more about our program by visiting our website ([www.uab.edu/medicine/pulmonary](http://www.uab.edu/medicine/pulmonary)) and we are looking forward to hearing from you soon!
Selected publications from our fellows

**Pleural mesothelial cell differentiation and invasion in fibrogenic lung injury.**
PMID: 23399488 [PubMed - in process]

**Idiopathic pulmonary fibrosis.**  
Zolak JS, de Andrade JA.  
PMID: 23102062 [PubMed - indexed for MEDLINE]

**Heme oxygenase-1 promotes granuloma development and protects against dissemination of mycobacteria.**  

**STAT4-Dependent and Independent Th2 Responses Correlate with Protective Immunity against Lung Infection with Pneumocystis murina.**  
Myers RC, Dunaway CW, Nelson MP, Trevor JL, Morris A, Steele C.  
PMID: 23650614 [PubMed - as supplied by publisher]

**IL-33 and M2a alveolar macrophages promote lung defense against the atypical fungal pathogen Pneumocystis murina.**  
Nelson MP, Christmann BS, Werner JL, Metz AE, Trevor JL, Lowell CA, Steele C.  
PMID: 21220696 [PubMed - indexed for MEDLINE]

**Acquired CFTR Dysfunction in the Lower Airways in COPD.**  
PMID: 23538783 [PubMed - as supplied by publisher]

**A pharmacologic approach to acquired cystic fibrosis transmembrane conductance regulator dysfunction in smoking related lung disease.**  
Computed Tomographic Measures of Pulmonary Vascular Morphology in Smokers and their Clinical Implications.
Am J Respir Crit Care Med. 2013 May 8. [Epub ahead of print]
PMID: 23656466 [PubMed - as supplied by publisher]

Pulmonary arterial enlargement and acute exacerbations of COPD.

Cigarette smoke enhances chemotaxis via acetylation of proline-glycine-proline.
PMID: 22652647 [PubMed - indexed for MEDLINE]

Pneumococcal vaccine and opsonic pneumococcal antibody.

Clinical implications of pneumococcal serotypes: invasive disease potential, clinical presentations, and antibiotic resistance.

Disparities in lung transplantation before and after introduction of the lung allocation score.
PMID: 23582477 [PubMed - as supplied by publisher]

Antifungal prophylaxis in solid organ transplant recipients.
Brizendine KD, Vishin S, Baddley JW.
PMID: 21609268 [PubMed - indexed for MEDLINE]