

IOWA

University of Iowa Carver College of Medicine

Research Opportunities

Division of Pulmonary, Critical Care, and Occupational Medicine

February 2, 2026

Why Pulmonary/Critical Care Research at Iowa?

- World-class collaborative environment bridging basic science, translational research, and clinical trials
- Over 50 permanent faculty members, 12 Pulmonary and Critical Care fellows, and more than 100 permanent staff members.
- Investigators in the Division receive research support of > \$10 million annually in direct costs.
- Equipment and personnel for the conduct of experiments at the molecular, cellular, small and large animal, and patient level are in place.

Basic Science Research



Josalyn Cho – MD, Director of the Inflammation Program

Immunologic mechanisms of pulmonary disease, dendritic cell-T cell interactions, viral infection responses, and allergic asthma.



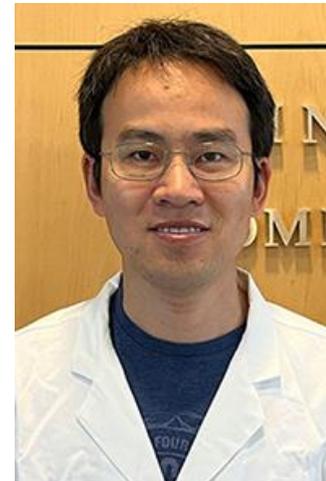
Ian Thornell – PhD

Ion transport across airway epithelia and its role in CF pathophysiology



***Julia Klesney-Tait, – MD, PhD
Founding Medical Director of the Lung Transplant Program***

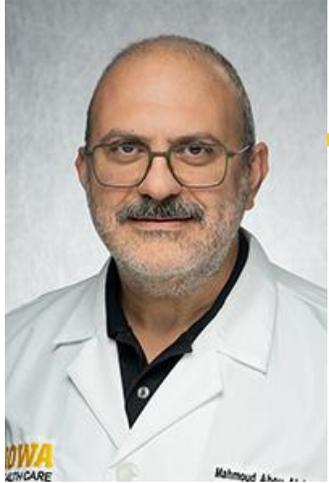
Neutrophil biology in lung inflammation and transplant rejection.



Wenjie Yu – PhD

Submucosal gland biology and mucus secretion in CF, pulmonary neuroendocrine cells regulation of mucus

Translational Science Research



Mahmoud Abou Alaiwa – MD,

▪ Mucociliary transport mechanisms using novel PET-CT imaging techniques, with a focus on airway diseases including CF, COPD, and asthma.



Dan Cook – MD, PhD

Allergic inflammation, innate and adaptive immune responses, lymphocyte biology.



***David Stoltz, – MD, PhD,
Division Director***

Leads CF and PCD pig model programs with a focus on CF lung disease pathogenesis.



Kale Bongers – MD, PhD

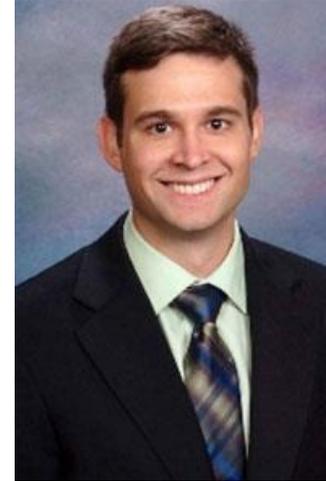
Gut microbiome's role in skeletal muscle dysfunction after sepsis and critical illness.

Translational Science Research



Raul Villacreses – MD

- Small airway disease and graft rejection in lung transplant, using quantitative CT imaging.



Peter Szachowicz – MD

Pulmonary immunology, respiratory infections, and acute lung injury, complement activation pathways in ILD.



Joe Zabner, – MD

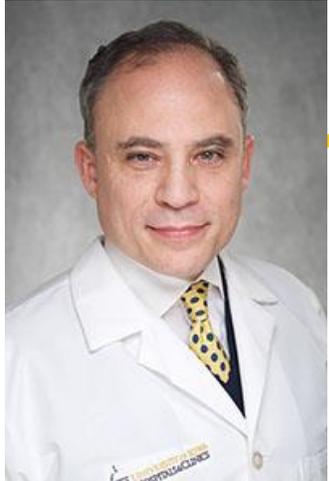
Gene therapy for cystic fibrosis and airway surface liquid composition; viral and non-viral vectors for CF treatment.



Mike Welsh – MD, Director of PBI

Foundational discoveries on CFTR structure and function enabled development of life-changing CF therapies; neurodegenerative diseases.

Clinical Research



Alejandro Comellas – MD,
*Director of the ICTS Clinical
Research Unit*

COPDGene and SPIROMICS; acute lung injury mechanisms, environment on airway innate immunity.



Robert Blount, – MD, MAS

Air pollution health effects on pulmonary immunity, particulate matter effects on tuberculosis risk, collaborations in Vietnam and pediatric PFAS exposure studies in Iowa



Jacob Simmering – PhD

Large healthcare databases and computational epidemiology to study environmental health effects, and predictive diagnostics



Alicia Gerke – MD, MBA,
PCCM Fellowship Director

Natural history cohorts and disease registries for sarcoidosis outcomes.

Clinical Research



Nabeel Hamzeh – MD, Director of the ILD Program

Sarcoidosis mechanisms including T-cell immunity epigenetics and cardiac sarcoidosis biomarkers



Robert Symth – MD

Lung cancer screening and liquid biopsies for lung nodule classification.



Spyros Fortis, – MD, PhD

COPD clinical outcomes, COPDGene and SPIROMICS cohort data to study rural health disparities, respiratory exacerbation prediction

Interested?

- Wanting to do research with the Pulm, CC, and Occ Med Division?
- Contact Dan Cook:
daniel-p-cook@uiowa.edu

