Ivana V. Yang, PhD

Conditions Treated:

Research Areas:

- *Infectious Diseases*
- *Cellular and Molecular Biology*
- *Epigenetics*
- *Genetic Associations with Musculoskeletal Disease Genetics*
- *Genomics*
- *Inflammation*
- *Innate Immunity*
- *Interstitial Lung Disease (ILD)*

Programs & Services:

- *Center for Genes, Environment and Health*

Research Interests

I share a laboratory with David Schwartz. The focus of the research in the Schwartz/Yang laboratory is on the role of genetics and epigenetics in innate immunity, pulmonary fibrosis, and asthma. One of my specific research interests is the identification of novel innate immune genes in mice by using genetic and genomic approaches and then testing polymorphisms in human orthologs of candidate genes for association with infection in patient cohorts. I am a co-director of another innate immunity project that aims to understand how environmental exposures such as ozone influence the expression of Toll-like receptors (TLRs) in the lung, and how this alteration in TLR expression has profound effects on lung host defense and consequently the development of lung infections and allergic airway disease. I am also co-leading a project aiming to understand the role of epigenetic regulation, specifically DNA methylation, in the development of asthma in humans. Finally, I am participating in the Lung Genomics Research Consortium, a multi-center consortium that aims to establish a comprehensive genetic, molecular, and quantitative clinical phenotyping warehouse for chronic lung diseases. Specifically, I am leading the efforts to perform whole genome methylation profiling and whole genome sequencingof subjects with pulmonary fibrosis and COPD.

Education

2000 University of North Carolina at Chapel Hill, PhD

Fellowship

2001 - 2003 The Institute for Genomic Research, Functional Genomics

Teaching or Professional Positions

2011-Present: Associate Professor, Department of Medicine, University of Colorado Denver and

Center for Genes, Environment and Health, National Jewish Health
2009-2011: Deputy Director, Center for Genes, Environment and Health
2009-2011: Assistant Professor, Department of Medicine, University of Colorado Denver
2008-2011: Assistant Professor, Department of Medicine, National Jewish Health
2005–2008: Staff Scientist, Laboratory of Environmental Lung Disease, National Institute of Environmental Health Sciences (NIEHS) and National Heart Lung and Blood Institute (NHLBI)
2003–2005: Assistant Research Professor, Division of Pulmonary, Allergy and Critical Care Medicine, Duke University Medical Center

Affiliations with the University of Colorado Denver

Associate Professor, University of Colorado Denver

Awards & Recognition

2003: EU-US Workshop on Molecular Signatures of DNA Damage Induced Stress Response Young Scientist Travel Award
2002: Aspen Cancer Conference Young Investigator
1996: Phi Beta Kappa

Publications

Yang IV, Alper S, Lackford B, Rutledge H, Warg LA, Burch LH, Schwartz DA. Novel regulators of the systemic response to lipopolysaccharide (LPS). Am J Respir Cell Mol Biol. In press.

Yang IV and Schwartz DA. Epigenetic Control of Gene Expression in the Lung. Am. J. Resp. Crit. Care Med. 183:1295-1301 (2011).

Yang I.V., Wade C.M., Kang H.M., Alper S., Lackford B., Rutledge H., Eskin, E., Daly, M.J., Schwartz D.A. Identification of Novel Genes that Mediate Innate Immunity using Inbred Mice. Genetics. 183,1535-44 (2009).

Huang Y.C.T., Li Z., Carter J.D., Schwartz D.A., **Yang I.V**. Fine ambient particles induce oxidative stress and metal binding genes in human alveolar macrophages. Am J Respir Cell Mol Biol. 41: 544-52 (2009).

Yang, I.V., Burch, L.H., Steele, M.P., Savov, J.D., Hollingsworth, J.W., Berman, K.G., Speer, M.C., Brown, K.K., Schwarz, M.I., Schwartz, D.A. Gene expression profiling of familial and sporadic interstitial pneumonia. Am. J. Resp. Crit. Care Med. 175, 45-54 (2007) (with accompanying editorial).

Doctor's Contact Information

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Locations

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