

Stanford



Angela Rogers

Assistant Professor of Medicine (Pulmonary and Critical Care) at the Stanford University Medical Center

Medicine - Pulmonary, Allergy & Critical Care Medicine

CLINICAL OFFICES

- **Pulmonary Clinic**

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Bio

BIO

Dr. Rogers is an expert in Pulmonary and Critical Care Medicine. She has practiced in these fields for 10 years. She has a special interest in ICU medicine, with a research focus on acute respiratory failure and ARDS. She researches in blood biomarkers of these diseases, and is very active in teaching residents and fellows about critical care.

CLINICAL FOCUS

- Critical Care
- Pulmonary Disease

ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Medicine - Pulmonary, Allergy & Critical Care Medicine
- Member, Bio-X

ADMINISTRATIVE APPOINTMENTS

- Associate Director, Stanford Pulmonary and Critical Care Fellowship, (2015- present)
- Associate Program Director, Stanford Internal Medicine Residency, (2015- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Planning Committee Chair, Allergy, Immunology, and Inflammation Assembly, American Thoracic Society, (2014 - present)

PROFESSIONAL EDUCATION

- Fellowship: Massachusetts General Hosp Harvard Med School (2009) MA
- Board Certification: Critical Care Medicine, American Board of Internal Medicine (2007)
- Board Certification: Pulmonary Disease, American Board of Internal Medicine (2006)
- Residency: Brigham and Women's Hospital Harvard Medical School (2004) MA
- Internship: Brigham and Women's Hospital Harvard Medical School (2002) MA

- Medical Education: Harvard Medical School (2001) MA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

We use genetics and genomics methodologies to identify novel ARDS pathobiology; we hope that this will enable identification of novel biomarkers, phenotypes, and treatments for the disease. We are building a plasma biobank of critically ill patients at Stanford, with a particular focus on metabolic changes in critical illness.

CLINICAL TRIALS

- ARrest RESpiraTory Failure From PNEUMONIA, Recruiting
- Crystalloid Liberal or Vasopressors Early Resuscitation in Sepsis, Recruiting
- Outcomes Related to COVID-19 Treated With Hydroxychloroquine Among In-patients With Symptomatic Disease, Recruiting

Publications

PUBLICATIONS

- **Gender Differences in Authorship of Critical Care Literature.** *American journal of respiratory and critical care medicine*
Vranas, K. C., Ouyang, D., Lin, A. L., Slatore, C. G., Sullivan, D. R., Prasad Kerlin, M., Liu, K. D., Baron, R. M., Calfee, C. S., Ware, L. B., Halpern, S., Matthay, M. A., Herridge, et al
2020
- **Association of Elevated Plasma Interleukin 18 Level With Increased Mortality in a Clinical Trial of Statin Treatment for Acute Respiratory Distress Syndrome.** *Critical care medicine*
Rogers, A. J., Guan, J., Trtchounian, A., Hunninghake, G. M., Kaimal, R., Desai, M., Kozikowski, L., DeSouza, L., Mogan, S., Liu, K. D., Matthay, M. A., Steingrub, J., Wheeler, et al
2019
- **MUC5B Promoter Polymorphism and Development of ARDS.** *American journal of respiratory and critical care medicine*
Rogers, A. J., Solus, J. F., Hunninghake, G. M., Baron, R. M., Meyer, N. J., Janz, D. R., Schwartz, D. A., May, A. K., Lawson, W. E., Blackwell, T. S., Ware, L. B.
2018
- **Multicohort Analysis of Whole-Blood Gene Expression Data Does Not Form a Robust Diagnostic for Acute Respiratory Distress Syndrome.** *Critical care medicine*
Sweeney, T. E., Thomas, N. J., Howrylak, J. A., Wong, H. R., Rogers, A. J., Khatri, P.
2018; 46 (2): 244–51
- **Gene Expression Analysis to Assess the Relevance of Rodent Models to Human Lung Injury.** *American journal of respiratory cell and molecular biology*
Sweeney, T. E., Lofgren, S., Khatri, P., Rogers, A. J.
2017
- **Profiling of ARDS Pulmonary Edema Fluid Identifies a Metabolically Distinct Subset.** *American journal of physiology. Lung cellular and molecular physiology*
Rogers, A. J., Contrepois, K., Wu, M., Zheng, M., Peltz, G., Ware, L. B., Matthay, M. A.
2017: ajplung 00438 2016-?
- **A generalizable 29-mRNA neural-network classifier for acute bacterial and viral infections.** *Nature communications*
Mayhew, M. B., Buturovic, L., Luethy, R., Midic, U., Moore, A. R., Roque, J. A., Shaller, B. D., Asuni, T., Rawling, D., Rimmel, M., Choi, K., Wacker, J., Khatri, et al
2020; 11 (1): 1177
- **The authors reply.** *Critical care medicine*
Rogers, A. J., Desai, M., Matthay, M. A., Choi, A. M., Baron, R. M.
2020; 48 (1): e78
- **Association Between Peripheral Blood Oxygen Saturation (SpO2)/Fraction of Inspired Oxygen (FiO2) Ratio Time at Risk and Hospital Mortality in Mechanically Ventilated Patients.** *The Permanente journal*

- Adams, J. Y., Rogers, A. J., Schuler, A., Marelich, G. P., Fresco, J. M., Taylor, S. L., Riedl, A. W., Baker, J. M., Escobar, G. J., Liu, V. X.
2020; 24
- **Early High-Dose Vitamin D3 for Critically Ill, Vitamin D-Deficient Patients.** *The New England journal of medicine*
National Heart, L., Ginde, A. A., Brower, R. G., Caterino, J. M., Finck, L., Banner-Goodspeed, V. M., Grissom, C. K., Hayden, D., Hough, C. L., Hyzy, R. C., Khan, A., Levitt, J. E., Park, et al
2019
 - **Semi-quantitative visual assessment of chest radiography is associated with clinical outcomes in critically ill patients.** *Respiratory research*
Mason, S. E., Dieffenbach, P. B., Englert, J. A., Rogers, A. A., Massaro, A. F., Fredenburgh, L. E., Higuera, A., Pinilla-Vera, M., Vilas, M., San Jose Estepar, R., Washko, G. R., Baron, R. M., Ash, et al
2019; 20 (1): 218
 - **Plasma mitochondrial DNA and metabolomic alterations in severe critical illness.** *Critical care (London, England)*
Johansson, P. I., Nakahira, K., Rogers, A. J., McGeachie, M. J., Baron, R. M., Fredenburgh, L. E., Harrington, J., Choi, A. M., Christopher, K. B.
2018; 22 (1): 360
 - **Current Status and Future Opportunities in Lung Precision Medicine Research with a Focus on Biomarkers** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Wu, A., Kiley, J. P., Noel, P. J., Amur, S., Burchard, E. G., Clancy, J. P., Galanter, J., Inada, M., Jones, T. K., Kropski, J. A., Loyd, J. E., Noguee, L. M., Raby, et al
2018; 198 (12): 1479–89
 - **Treatment with allogeneic mesenchymal stromal cells for moderate to severe acute respiratory distress syndrome (START study): a randomised phase 2a safety trial.** *The Lancet. Respiratory medicine*
Matthay, M. A., Calfee, C. S., Zhuo, H., Thompson, B. T., Wilson, J. G., Levitt, J. E., Rogers, A. J., Gotts, J. E., Wiener-Kronish, J. P., Bajwa, E. K., Donahoe, M. P., McVerry, B. J., Ortiz, et al
2018
 - **A Nasal Brush-based Classifier of Asthma Identified by Machine Learning Analysis of Nasal RNA Sequence Data** *SCIENTIFIC REPORTS*
Pandey, G., Pandey, O. P., Rogers, A. J., Ahsen, M. E., Hoffman, G. E., Raby, B. A., Weiss, S. T., Schadt, E. E., Bunyavanich, S.
2018; 8: 8826
 - **GWAS in ARDS: Finding the Needle in the Haystack to Advance our Understanding of ARDS.** *American journal of respiratory and critical care medicine*
Rogers, A. J.
2018
 - **VITAMIN C AND METABOLOME ALTERATIONS IN SEVERE CRITICAL ILLNESS**
Golmai, P., Rogers, A., Baron, R., Gazourian, L., Chary, S., Fredenburgh, L., Massaro, A., Choi, A., Christopher, K.
LIPPINCOTT WILLIAMS & WILKINS.2018: 712
 - **New Strategies and Challenges in Lung Proteomics and Metabolomics. An Official American Thoracic Society Workshop Report.** *Annals of the American Thoracic Society*
Bowler, R. P., Wendt, C. H., Fessler, M. B., Foster, M. W., Kelly, R. S., Lasky-Su, J., Rogers, A. J., Stringer, K. A., Winston, B. W.
2017; 14 (12): 1721–43
 - **Epidemiologic and Population Genetic Studies** *CLINICAL AND TRANSLATIONAL SCIENCE: PRINCIPLES OF HUMAN RESEARCH, 2ND EDITION*
Rogers, A. J., Weiss, S. T., Robertson, D., Williams, G. H.
2017: 313–26
 - **Metabolome alterations in severe critical illness and vitamin D status.** *Critical care (London, England)*
Lasky-Su, J., Dahlin, A., Litonjua, A. A., Rogers, A. J., McGeachie, M. J., Baron, R. M., Gazourian, L., Barragan-Bradford, D., Fredenburgh, L. E., Choi, A. M., Mogensen, K. M., Quraishi, S. A., Amrein, et al
2017; 21 (1): 193
 - **A resident-created hospitalist curriculum for internal medicine housestaff.** *Journal of hospital medicine*
Kumar, A., Smeraglio, A., Witteles, R., Harman, S., Nallamshetty, S., Rogers, A., Harrington, R., Ahuja, N.
2016; 11 (9): 646-649
 - **A computational approach to mortality prediction of alcohol use disorder inpatients** *COMPUTERS IN BIOLOGY AND MEDICINE*
Calvert, J., Mao, Q., Rogers, A. J., Barton, C., Jay, M., Desautels, T., Mohamadlou, H., Jan, J., Das, R.
2016; 75: 74-79

- **16 Years and Counting? Time to Implement Noninvasive Screening for ARDS** *CHEST*
Rogers, A. J., Liu, V. X.
2016; 150 (2): 266-67
- **Metabolism, Metabolomics, and Nutritional Support of Patients with Sepsis** *CLINICS IN CHEST MEDICINE*
Englert, J. A., Rogers, A. J.
2016; 37 (2): 321-?
- **Proteomic study of acute respiratory distress syndrome: current knowledge and implications for drug development** *EXPERT REVIEW OF PROTEOMICS*
Levitt, J. E., Rogers, A. J.
2016; 13 (5): 457-469
- **ATS Core Curriculum 2016: Part II. Adult Critical Care Medicine.** *Annals of the American Thoracic Society*
McSparron, J. I., Hayes, M. M., Poston, J. T., Thomson, C. C., Fessler, H. E., Stapleton, R. D., Carlos, W. G., Hinkle, L., Liu, K., Shieh, S., Ali, A., Rogers, A., Shah, et al
2016; 13 (5): 731-740
- **Metabolites Associated With Malnutrition in the Intensive Care Unit Are Also Associated With 28-Day Mortality: A Prospective Cohort Study.** *JPEN. Journal of parenteral and enteral nutrition*
Mogensen, K. M., Lasky-Su, J., Rogers, A. J., Baron, R. M., Fredenburgh, L. E., Rawn, J., Robinson, M. K., Massarro, A., Choi, A. M., Christopher, K. B.
2016
- **Increased expression of neutrophil-related genes in patients with early sepsis-induced ARDS** *AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY*
Kangelaris, K. N., Prakash, A., Liu, K. D., Aouizerat, B., Woodruff, P. G., Erle, D. J., Rogers, A., Seeley, E. J., Chu, J., Liu, T., Osterberg-Deiss, T., Zhuo, H., Matthay, et al
2015; 308 (11): L1102-L1113
- **Finding an early warning signal for acute respiratory distress syndrome: are we getting closer?** *Critical care medicine*
Rogers, A. J., Dhillon, G. S.
2015; 43 (3): 721-722
- **Mesenchymal stem (stromal) cells for treatment of ARDS: a phase 1 clinical trial.** *The Lancet. Respiratory medicine*
Wilson, J. G., Liu, K. D., Zhuo, H., Caballero, L., McMillan, M., Fang, X., Cosgrove, K., Vojnik, R., Calfee, C. S., Lee, J., Rogers, A. J., Levitt, J., Wiener-Kronish, et al
2015; 3 (1): 24-32
- **Expression Quantitative Trait Loci Information Improves Predictive Modeling of Disease Relevance of Non-Coding Genetic Variation.** *PLoS one*
Croteau-Chonka, D. C., Rogers, A. J., Raj, T., McGeachie, M. J., Qiu, W., Ziniti, J. P., Stubbs, B. J., Liang, L., Martinez, F. D., Strunk, R. C., Lemanske, R. F., Liu, A. H., Stranger, et al
2015; 10 (10)
- **METABOLOME ALTERATION IN CRITICAL ILLNESS ACCORDING TO VITAMIN D STATUS: A PROSPECTIVE COHORT STUDY**
Christopher, K., Rogers, A., Baron, R., Fredenburgh, L., Gazourian, L., Massaro, A., Choi, A., Litonjua, A.
LIPPINCOTT WILLIAMS & WILKINS.2014
- **Pharmacogenomics: novel loci identification via integrating gene differential analysis and eQTL analysis.** *Human molecular genetics*
Qiu, W., Rogers, A. J., Damask, A., Raby, B. A., Klanderma, B. J., Duan, Q. L., Tyagi, S., Niu, S., Anderson, C., Cahir-McFarland, E., Mariani, T. J., Carey, V., Tantisira, et al
2014; 23 (18): 5017-5024
- **Integrative "omic" analysis of experimental bacteremia identifies a metabolic signature that distinguishes human sepsis from systemic inflammatory response syndromes.** *American journal of respiratory and critical care medicine*
Langley, R. J., Tipper, J. L., Bruse, S., Baron, R. M., Tsalik, E. L., Huntley, J., Rogers, A. J., Jaramillo, R. J., O'Donnell, D., Mega, W. M., Keaton, M., Kensicki, E., Gazourian, et al
2014; 190 (4): 445-455
- **Design and implementation of the START (STem cells for ARDS Treatment) trial, a phase 1/2 trial of human mesenchymal stem/stromal cells for the treatment of moderate-severe acute respiratory distress syndrome** *ANNALS OF INTENSIVE CARE*
Liu, K. D., Wilson, J. G., Zhuo, H., Caballero, L., McMillan, M. L., Fang, X., Cosgrove, K., Calfee, C. S., Lee, J., Kangelaris, K. N., Gotts, J. E., Rogers, A. J., Levitt, et al

2014; 4

- **Applying metabolomics to uncover novel biology in ARDS.** *American journal of physiology. Lung cellular and molecular physiology*
Rogers, A. J., Matthay, M. A.
2014; 306 (11): L957-61
- **Factors associated with bronchiolitis obliterans syndrome and chronic graft-versus-host disease after allogeneic hematopoietic cell transplantation** *AMERICAN JOURNAL OF HEMATOLOGY*
Gazourian, L., Rogers, A. J., Ibang, R., Weinhouse, G. L., Pinto-Plata, V., Ritz, J., Soiffer, R. J., Antin, J. H., Washko, G. R., Baron, R. M., Ho, V. T.
2014; 89 (4): 404-409
- **Metabolomic Derangements Are Associated with Mortality in Critically Ill Adult Patients** *PLOS ONE*
Rogers, A. J., McGeachie, M., Baron, R. M., Gazourian, L., Haspel, J. A., Nakahira, K., Fredenburgh, L. E., Hunninghake, G. M., Raby, B. A., Matthay, M. A., Otero, R. M., Fowler, V. G., Rivers, et al
2014; 9 (1)
- **Design and implementation of the START (STem cells for ARDS Treatment) trial, a phase 1/2 trial of human mesenchymal stem/stromal cells for the treatment of moderate-severe acute respiratory distress syndrome.** *Annals of intensive care*
Liu, K. D., Wilson, J. G., Zhuo, H., Caballero, L., McMillan, M. L., Fang, X., Cosgrove, K., Calfee, C. S., Lee, J., Kangelaris, K. N., Gotts, J. E., Rogers, A. J., Levitt, et al
2014; 4: 22-?
- **Circulating Mitochondrial DNA in Patients in the ICU as a Marker of Mortality: Derivation and Validation** *PLOS MEDICINE*
Nakahira, K., Kyung, S., Rogers, A. J., Gazourian, L., Youn, S., Massaro, A. F., Quintana, C., Osorio, J. C., Wang, Z., Zhao, Y., Lawler, L. A., Christie, J. D., Meyer, et al
2013; 10 (12)
- **Copy number variation genotyping using family information** *BMC BIOINFORMATICS*
Chu, J., Rogers, A., Ionita-Laza, I., Darvishi, K., Mills, R. E., Lee, C., Raby, B. A.
2013; 14
- **Copy number variation prevalence in known asthma genes and their impact on asthma susceptibility** *CLINICAL AND EXPERIMENTAL ALLERGY*
Rogers, A. J., Chu, J., Darvishi, K., Ionita-Laza, I., Lehmann, H., Mills, R., Lee, C., Raby, B. A.
2013; 43 (4): 455-462
- **An integrated clinico-metabolomic model improves prediction of death in sepsis.** *Science translational medicine*
Langley, R. J., Tsalik, E. L., Velkinburgh, J. C., Glickman, S. W., Rice, B. J., Wang, C., Chen, B., Carin, L., Suarez, A., Mohny, R. P., Freeman, D. H., Wang, M., You, et al
2013; 5 (195): 195ra95
- **Inflammasome-regulated Cytokines Are Critical Mediators of Acute Lung Injury** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Dolinay, T., Kim, Y. S., Howrylak, J., Hunninghake, G. M., An, C. H., Fredenburgh, L., Massaro, A. F., Rogers, A., Gazourian, L., Nakahira, K., Haspel, J. A., Landazury, R., Eppanapally, et al
2012; 185 (11): 1225-1234
- **The CD4+ T-cell transcriptome and serum IgE in asthma: IL17RB and the role of sex.** *BMC pulmonary medicine*
Hunninghake, G. M., Chu, J., Sharma, S. S., Cho, M. H., Himes, B. E., Rogers, A. J., Murphy, A., Carey, V. J., Raby, B. A.
2011; 11: 17-?
- **On the Genome-Wide Analysis of Copy Number Variants in Family-Based Designs: Methods for Combining Family-Based and Population-Based Information for Testing Dichotomous or Quantitative Traits, or Completely Ascertained Samples** *GENETIC EPIDEMIOLOGY*
Murphy, A., Won, S., Rogers, A., Chu, J., Raby, B. A., Lange, C.
2010; 34 (6): 582-590
- **A Role for Wnt Signaling Genes in the Pathogenesis of Impaired Lung Function in Asthma** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Sharma, S., Tantisira, K., Carey, V., Murphy, A. J., Lasky-Su, J., Celedon, J. C., Lazarus, R., Klanderman, B., Rogers, A., Soto-Quiros, M., Avila, L., Mariani, T., Gaedigk, et al
2010; 181 (4): 328-336

- **The interaction of glutathione S-transferase M1-null variants with tobacco smoke exposure and the development of childhood asthma** *CLINICAL AND EXPERIMENTAL ALLERGY*
Rogers, A. J., Brasch-Andersen, C., Ionita-Laza, I., Murphy, A., Sharma, S., Klanderman, B. J., Raby, B. A.
2009; 39 (11): 1721-1729
- **Predictors of poor response during asthma therapy differ with definition of outcome** *PHARMACOGENOMICS*
Rogers, A. J., Tantisira, K. G., Fuhlbrigge, A. L., Litonjua, A. A., Lasky-Su, J. A., Szeffler, S. J., Strunk, R. C., Zeiger, R. S., Weiss, S. T.
2009; 10 (8): 1231-1242
- **Assessing the Reproducibility of Asthma Candidate Gene Associations, Using Genome-wide Data** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Rogers, A. J., Raby, B. A., Lasky-Su, J. A., Murphy, A., Lazarus, R., Klanderman, B. J., Sylvia, J. S., Ziniti, J. P., Lange, C., Celedon, J. C., Silverman, E. K., Weiss, S. T.
2009; 179 (12): 1084-1090
- **Asthma genetics and genomics 2009** *CURRENT OPINION IN GENETICS & DEVELOPMENT*
Weiss, S. T., Raby, B. A., Rogers, A.
2009; 19 (3): 279-282
- **Genetic association analysis of copy-number variation (CNV) in human disease pathogenesis** *GENOMICS*
Ionita-Laza, I., Rogers, A. J., Lange, C., Raby, B. A., Lee, C.
2009; 93 (1): 22-26
- **Filaggrin mutations confer susceptibility to atopic dermatitis but not to asthma** *JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY*
Rogers, A. J., Celedon, J. C., Lasky-Su, J. A., Weiss, S. T., Raby, B. A.
2007; 120 (6): 1332-1337