Post Doctoral Position Posting

The Pulmonary Circulation at Vanderbilt Medical Center is a multi-disciplinary center focused on the care and cure of diseases of the pulmonary circulation, including right heart failure. The Center, Co-Directed by Drs. Evan Brittain and Anna Hemnes, includes clinicians and researchers from diverse backgrounds including cardiology, rheumatology, pulmonary, genetic, pediatric backgrounds. Our research spans basic mechanisms of pulmonary vascular disease and right ventricular dysfunction, translational studies in humans, large cohort studies and novel uses of big data to understand the epidemiology of relevant conditions. The Pulmonary Circulation Center has recently received funding to expand our research portfolio and also dedicated space on the main campus of Vanderbilt University Medical Center to support our work and personnel.

The Pulmonary Circulation Center has an active research program in precision medicine in pulmonary vascular disease and right heart failure. Our work focuses on identification of endophenotypes in pulmonary vascular disease, understanding genetic risk for pulmonary vascular disease and right heart failure, novel metabolomic insights into pulmonary hypertension and right heart failure and blood-based “omic” predictors of treatment responses in pulmonary vascular disease. We use several tools to test our hypotheses including VUMC’s Synthetic Derivative, large publicly-available datasets, and novel cohorts with rich clinical, genomic, transcriptomic, metabolomic and proteomic data. Examples of recent, relevant publications include the following: JAMA Cardiol. 2019 Nov 1;4(11):1112-1121. doi: 10.1001/jamacardio.2019.3345, J Am Coll Cardiol. 2016 Dec 13;68(23):2525-2536. doi: 10.1016/j.jacc.2016.09.942, Circ Res. 2017 Oct 27;121(10):1136-1139. doi: 10.1161/CIRCRESAHA.117.311737

We are looking for researchers with experience in bioinformatics, data analysis and working knowledge of molecular and cellular biology to drive our research program in precision medicine, with a specific focus on our big data cohorts. This is a full time position for at least two years with an option for further work. The successful candidate will be able to work with Drs. Brittain and Hemnes to generate hypotheses, independently perform bioinformatic analyses of multi-omic data in appropriate cohorts to test hypotheses, form figures for publication and presentation, present data verbally and in publications. Our group has experience in mentorship to independent funding and would support career development to that stage if the applicant is interested and successful in our laboratory.

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