Surya Bhatt, MD, recently awarded with the Early Career Achievement Award from the ATS Assembly on Clinical Problems and recently recognized as a top reviewer for the ATS Journal Annals of the American Thoracic Society, has made impressive contributions to research into chronic obstructive pulmonary disease and expiratory central airway collapse. Dr. Bhatt, an Assistant Professor of Medicine in our division, is the Medical Director of the UAB Pulmonary Function and Exercise Physiology Lab, and director of the UAB Remote Pulmonary Rehabilitation Program.

The Remote Pulmonary Rehabilitation Program provides chronic obstructive pulmonary disease, or COPD, patients with at-home pulmonary rehabilitation through telemonitoring. Most COPD patients experience frequent exacerbations of their disease that may require recurring hospitalization. Pulmonary rehabilitation with exercises designed to improve lung function can help reduce that readmission rate. There are a limited number of pulmonary rehabilitation centers in Alabama, making trips to complete rehabilitation prohibitively difficult for some patients. Dr. Bhatt’s work on telemonitoring a patient’s at-home rehabilitation has resulted in a safe and convenient alternative to usual pulmonary rehabilitation, resulting in a significant reduction in hospital readmissions.

Dr. Bhatt has also recently completed novel research in expiratory central airway collapse, or ECAC. This research, “Association Between Expiratory Central Airway Collapse and Respiratory Outcomes Among Smokers,” was published in the Journal of the American Medical Association (JAMA) in February 2016. The research suggests that ECAC is associated with poor lung function and respiratory symptoms and may be a valuable biomarker for poor respiratory outcomes in smokers.

Patients with lung disease, including COPD and emphysema, often have symptoms, such as shortness of breath, that are not easily explained by their disease. ECAC may be connected to these symptoms. This research also found that ECAC was associated with increased incidence of acute respiratory events on follow-up in those without COPD, and with increased incidence of severe exacerbations in those with airflow obstruction.