Moderate and severe asthmatics respond differently to standard medication, and their asthma can be hard to control. We are currently looking for individuals with moderate and severe asthma to participate in asthma research studies at the University of Pittsburgh Asthma Institute at UPMC. Compensation and parking is provided. To learn more, call 1-866-804-5278, email asthmainstitute@upmc.edu, or visit www.asthmainstitute.pitt.edu.

About 1 in 12 people in the United States have asthma. That’s around 25 million individuals. Severe asthmatics make up 10% of those with asthma, and it’s important to look at what makes the severe form different from milder forms. Unlike most asthma, severe asthma is not well controlled and responds poorly to the main type of asthma medicine called corticosteroids (usually taken in the form of an inhaler). Medical costs for this type account for half of the yearly money spent on asthma healthcare, making it a challenging and necessary area of asthma research with the potential to improve the quality of life for millions.

The Asthma Institute’s Dr. Anuradha Ray was presented with the Recognition Award for Scientific Accomplishments last month from the American Thoracic Society Foundation for her work in that very field of study. One of four awardees this year, Dr. Ray not only focuses her research on understanding inflammatory diseases like asthma, but also studies the ways that lessen this inflammation naturally.

Currently, she is looking at the way the immune system contributes to severe asthma and why severe asthma responds differently to standard treatment methods. She believes that understanding the way the immune system helps maintain normal airflow can help answer questions about the way severe asthma works.

Dr. Ray says, “I feel honored to have been selected among the many deserving nominees. I am pleased that our research contributions over the years were recognized by the members of the ATS Awards Committee.” The award recognizes researchers for their contributions made throughout their careers, and Dr. Ray has many to be proud of.

Her early research was the first to show that corticosteroids (standard asthma medication) lower inflammation by direct protein-protein interactions. This conclusion replaced the theory that the medication interfered with gene copying to decrease inflammation. Her work continued to be successful in the identification of cell regulators related to asthma and allergic diseases as well as effective animal models in which to study them. Her laboratory also made great progress in explaining a pathway that promotes immune tolerance in the airways. Recently, she has demonstrated that severe asthma involves an immune response. In this complex response, pathogens get around the immune system’s protective mechanisms to cause inflammation.

The National Institutes of Health has continuously funded her research by multiple grants. Beyond research, she is an invited member of the Faculty of 1000 Biology in the Immunology discipline, serves as an associate editor for multiple respiratory journals, and participates in funding review panels.

Looking to the future, Dr. Ray says, “All asthma is not the same, and the symptoms in many asthmatics cannot be adequately controlled despite many years of research in this area. A better understanding of the triggers and mechanisms including gene-environment interactions that drive severe disease is necessary to develop the next generation therapeutics… We hope support for asthma research continues to be a top priority for the NIH and private foundations.”

Congratulations to Dr. Ray, and thank you for your scientific contributions!