



Study launched to better understand real-world impact and progression of COPD

Duke Clinical Research Institute, Duke University's MURDOCK Study and Boehringer Ingelheim Pharmaceuticals Launch Innovative Clinical Research Study

KANNAPOLIS, N.C. and RIDGEFIELD, Conn.—April 7, 2017—Duke University's MURDOCK Study, the Duke Clinical Research Institute (DCRI) and Boehringer Ingelheim Pharmaceuticals Inc. announced today the launch of a new collaborative research effort to closely follow 850 people living with chronic obstructive pulmonary disease (COPD). The study will measure changes to participants' health to better understand how COPD progresses within a community and follow participants for five years.

The MURDOCK COPD Study is an observational study that could help researchers develop a better way for healthcare providers to assess COPD progression in their patients. It could also provide new insights into the correlation between lung function, exercise capacity or COPD symptoms and disease progression.

COPD is a term that includes chronic bronchitis and/or emphysema. This disease can make breathing harder because less air flows in and out of the lungs. Chronic lower respiratory diseases, which include COPD, are the third-leading cause of death in the United States, and approximately 15 million Americans have been told by a healthcare provider that they have COPD.

Much of the understanding of current COPD management comes from randomized clinical trials that use strict inclusion criteria and regimented patient follow-up, which may not mirror real-world practices.

"By contrast, this observational study will create a diverse group of participants with COPD who will be followed for years, allowing us to better understand the impact and progression of COPD in a community," said Scott Palmer, M.D., director for DCRI Respiratory Research and principal investigator for the [MURDOCK COPD Study](#). "We hope this study will ultimately contribute to our understanding of how to provide better patient care and more effective treatment for patients in the community setting."



In the MURDOCK COPD Study, researchers will use results to compare disease development and progression in a real-world setting to the current system for classifying the stages of COPD. Results could also help study investigators understand patterns of COPD therapy within the study group and create better benchmarks for evaluating the clinical course of COPD.

“This disease can have a profound impact on someone’s quality of life. As healthcare providers caring for patients with COPD, we want to help our patients understand their risk for flare-ups of breathing problems, hospitalizations and other outcomes that can negatively affect their lives,” said Jamie Todd, M.D., assistant professor of medicine in the DCRI and co-principal investigator of the study. “Much of what we have learned about COPD to date has been gathered from research done in large academic medical centers. But for this study, we have the unique opportunity to work with the MURDOCK Study to better understand the progression and management of COPD in a community setting.”

The most common symptom of COPD is shortness of breath, especially with physical activities. Coughing, with or without mucus production, is also a common symptom of COPD. These symptoms can be misunderstood as signs of aging. COPD is usually associated with progressive airway damage and loss of lung function that cause breathing to become more difficult.

Adults who are at least 40 years old and have COPD as determined by a breathing test administered during a screening visit may qualify to join the MURDOCK COPD Study. Enrollment is open to all who qualify, and no geographic restrictions apply.

During the five years of COPD study follow-up, Duke’s MURDOCK Study team in Kannapolis will contact participants every six months to measure changes to their health.

“Boehringer Ingelheim is proud to be a part of this important study to explore COPD itself with the goal of ultimately improving the care for people living with this chronic respiratory disease,” said Danny McBryan, M.D., head of Clinical Development & Medical Affairs, Respiratory, Boehringer Ingelheim Pharmaceuticals, Inc. “For over 40 years, we have had an unwavering commitment to the COPD community, and we will continue to support important research efforts, such as the MURDOCK Study, that strive to provide new answers and new hope from people living with COPD.”

People who would like to learn whether they qualify can start the process by calling 704-250-5861 or visiting www.murdock-study.org/COPD. Participants will be offered compensation for each in-person visit. Everyone who completes a screening visit will receive a copy of their lung function test. People who qualify for the study and choose to enroll will receive additional



feedback, including the distance they walked in six minutes compared to the distance expected for someone of an identical age, sex, height and weight without COPD.

About the MURDOCK Study

The MURDOCK Study is a longitudinal clinical research study working to reclassify health and disease through advanced scientific technologies, expertise from Duke University researchers and external partners, and close collaborations with a strong network of local and regional community partners. The MURDOCK Study is managed by the Duke Clinical & Translational Science Institute and is based in Kannapolis, N.C., on the North Carolina Research Campus. MURDOCK stands for the Measurement to Understand the Reclassification of Disease Of Cabarrus/Kannapolis. To learn more, visit www.murdock-study.org. Contact the study at murdock-study@duke.edu or 704-250-5861.

About Duke Clinical Research Institute

The Duke Clinical Research Institute (DCRI), part of the Duke University School of Medicine, is the largest academic research organization in the world. Its mission is to develop and share knowledge that improves the care of patients through innovative clinical research. The DCRI conducts groundbreaking multinational clinical trials, manages major national patient registries, and performs landmark outcomes research. DCRI research spans multiple disciplines, from pediatrics to geriatrics, primary care to subspecialty medicine, and genomics to proteomics. The DCRI's Respiratory Research program includes physicians with first-hand experience treating patients with diverse respiratory problems and expertise in conducting clinical and translational research in patient populations with respiratory disease. Faculty are drawn from the Duke University School of Medicine's division of pulmonary and critical care medicine, consistently ranked among the top 10 programs in the United States. To learn more, visit www.DCRI.org.

About Boehringer Ingelheim Pharmaceuticals, Inc.

Boehringer Ingelheim Pharmaceuticals, Inc., based in Ridgefield, CT, is the largest U.S. subsidiary of Boehringer Ingelheim Corporation.

Boehringer Ingelheim is one of the world's 20 leading pharmaceutical companies. Headquartered in Ingelheim, Germany, the company operates globally with 145 affiliates and more than 47,000 employees. Since its founding in 1885, the family-owned company has been committed to researching, developing, manufacturing and marketing novel treatments for human and veterinary medicine.

Boehringer Ingelheim is committed to improving lives and providing valuable services and support to patients and their families. Our employees create and engage in programs that



strengthen our communities. To learn more about how we make more health for more people, visit our Corporate Social Responsibility Report.

In 2015, Boehringer Ingelheim achieved net sales of about \$15.8 billion (14.8 billion euros). R&D expenditure corresponds to 20.3 percent of its net sales.

For more information, please visit www.us.boehringer-ingenelheim.com, or follow us on Twitter @BoehringerUS.

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