Largest Ever Grant Awarded in UNC Nutrition Research Institute History

Dr. Philip May earns $8.9MM grant to unravel Fetal Alcohol Spectrum Disorders

Philip A. May, Ph.D., Research Professor at the UNC Nutrition Research Institute (NRI) and leading expert in fetal alcohol syndrome disorders (FASD), has earned a grant of $8.9 million to examine the prevalence and characteristics of FASD in the United States. The grant, the largest in the NRI’s history, was awarded from the National Institute of Health’s National Institute on Alcohol Abuse and Alcoholism. The funds will support Dr. May’s extensive research on individual nutrient risk factors related to alcoholism during pregnancy.

Alcohol consumption during pregnancy can lead to birth defects, including physical anomalies (or deformities), limited brain development, behavioral issues, and learning disabilities. While fetal alcohol disorder has caused these birth defects for years, many of the symptoms are only evident later in childhood, making it difficult for scientists to track. Dr. May will use the grant to study first graders across the United States, including North Carolina, to develop a way to clearly diagnose impacted children and institute appropriate treatment.

Ultimately, the grant will fund studies designed to pinpoint micronutrients and other characteristics and subsequently create strategies to lessen, or even prevent, the alcohol’s impact on the fetus.

This critical intersection between nutrients and FASD naturally makes the NRI the ideal environment in which to lead this important research. Dr. May, the newest investigator to join the NRI team in April, 2011, selected the NRI as his new research facility so he could combine the knowledge gained from his field research across the globe with the institute’s international leadership in nutrition science. “We have made great progress identifying the demographic and behavioral risk factors for FASD,” Dr. May explains. “Now we must look at individual risk factors and nutrient deficiencies – genetics and epigenetics may come into play.”

Steven Zeisel, M.D., Ph.D. and NRI Director, elaborates, “The overarching objective of the NRI is to advance the field of individualized nutrition, as opposed to a one-size fits all approach. This requires attention to genetic, metabolomic and epigenetic variations among people. Dr. May’s investigation of the severity and prevalence of fetal alcohol syndrome disorders suggests that there is great variation in cognitive outcomes in children affected with this disorder. Using the NRI’s advances in
nutrigenomics and metabolomics, Dr. May hopes to gain a better understanding of this variation, which in turn might assist with identification of risk factors and prevention.”

May is considered a leader in the field of FASD, based on his breakthrough research on Fetal Alcohol Spectrum Disorders and his work on the prevention of Fetal Alcohol Syndrome. Dr. May has conducted extensive international research via many federal grants on epidemiology and risk factors for FASD, including alcohol use and abuse, and how FASD relates to mental health and deviance. Dr. May’s specialty areas also extend to demography and medical sociology, focusing much of his research on community-wide prevention of the disorder.

This grant is only the latest of May’s accomplishments. Earlier this year, May was honored with an Excellence Award at the National Organization on Fetal Alcohol Syndrome (NOFAS) Awards Benefit in Washington, D.C. Just prior, he was selected to deliver the prestigious 2011 University of New Mexico 56th Annual Research Lecture, one of the highest honors that can be awarded at the university. Recently he also conducted groundbreaking research on FASD in South Africa, Italy, and the United States. He has served on the influential Institute of Medicine Study Committee. Previously, he directed the first major national FAS prevention project, the National Indian FAS Prevention program from 1983 through 1986. In 1979, May conducted the first ever epidemiology study on FASD among Southwestern Indians in 1979. Notably, May created the University of New Mexico Center on Alcoholism, Substance Abuse and Addictions, and served as its Director for 12 years.

Having now relocated his studies to the NRI, Dr. May’s current investigation has extreme significance for present-day, and particularly future, societal choices. “My lab is the community,” says Dr. May, “Understanding how health problems are intertwined with particular lifestyles and influenced by unique social and cultural conditions advances translation of knowledge to effective intervention, prevention, and cures.” The results from Dr. May’s studies will result in direct positive impact for communities worldwide.

Dr. May and his research contributions are another example of how science at the North Carolina Research Campus is an economic engine for the state. The professors and their research attract external funding, which ultimately result in employment – everyone from staff who directly support the labs, to housekeepers who indirectly support the studies. Grant administration necessitates spending money locally on supplies, lab equipment, and research materials, further stimulating our local economy.

“In this tight economic environment, Dr. May’s grant is very important, because it creates jobs, enhancing the Campus' ability to be an economic driver for North Carolina,” Dr. Steven Zeisel explains. “But the impact is not just monetary. Dr. May's reputation and work add prestige and credibility to the North Carolina Research Campus. For example, Dr. May is traveling to Canada, Russia and South Africa this
fall, where he will speak on his project and, at the same time, introduce new audiences to the vanguard research going on at the NRI and its partner institutions. We appreciate Dr. May and all the scientists who join the NRI team, contributing toward the forward progress of our mission.”

Philip May, Ph.D., and Research Professor at the UNC Nutrition Research Institute is a leading expert in fetal alcohol syndrome disorder (FASD) and has earned a grant of $8.9 million to examine the prevalence and characteristics of FASD in the United States.

About NRI

The UNC Nutrition Research Institute (NRI), part of the University of North Carolina at Chapel Hill, is located on the North Carolina Research Campus in Kannapolis. The NRI is dedicated to developing the field of individualized nutrition — understanding variance in people’s DNA, metabolism and nutrient requirements and how this impacts health. Long term, the NRI’s discoveries will lead to individually tailored nutrition recommendations that will allow people to customize their diets in order to maximize wellness and reduce risk of disease.

For more information on the UNC Nutrition Research Institute, or to schedule an interview, contact Monica Hughes at 704-250-5008 or monica_hughes@unc.edu.