

THE DAVID REDDEN ALS FUNDCOLUMBIA UNIVERSITY
ELEANOR AND LOU GEHRIG ALS CENTER

Since its founding in 1987, the Eleanor and Lou Gehrig ALS Center at Columbia University has led the way in the investigation and treatment of Amyotrophic Lateral Sclerosis (ALS) and related neuromuscular disorders. The Eleanor and Lou Gehrig ALS Center fills a critical need in New York City for promising clinical research in ALS, and has become the destination of choice for those diagnosed with ALS in the New York area and across the nation. Under the leadership and direction of Neil Shneider, M.D., Ph.D., the Center is building upon its storied history and is committed to providing unparalleled care to our patients, conducting research of the highest caliber, and training the next generations of leaders throughout the field.

Excellence in Research Innovation

In addition to providing compassionate and multidisciplinary medical care for patients in the New York Metropolitan region, the faculty at the Eleanor and Lou Gehrig ALS Center conduct cutting-edge basic science and translational research aimed at uncovering the causes of ALS and developing clinical trials of new possible treatments for patients. Today, there is still no effective treatment for ALS. Now more than ever before, there is an urgent need to understand the molecular, genetic, and cellular mechanisms that underlie motor neuron degeneration in ALS.

At Columbia, the ALS Center's physician-scientists are collaborating with specialists throughout Columbia University, including the Institute for Genomic Medicine and the Motor Neuron Center, to develop novel ways of studying of ALS that are opening new avenues of research into the inner workings of the disease. In a key example, Dr. Matt Harms, a member of the ALS Center team, is investigating one of the central processes implicated in ALS, known as "autophagy." Autophagy is the biological process used by cells to recycle unneeded and defective proteins, especially proteins that have become destabilized, misfolded, and bound up in clumps. The resulting accumulation of clumped and misfolded proteins then cascades into impaired cellular function, the activation of inflammatory responses, and ultimately cell death. Dr. Harms' lab is working with Columbia's geneticists and molecular biologists to identify the genes involved in autophagy in order to understand better the role it plays in ALS and to develop targeted treatments to intervene in the process.

A Commitment to Education

To bolster its scientific and clinical mission, the Center is dedicated to training the next generation of leaders in ALS research and patient care through its strong educational programs. A specialized fellowship is among the very best ways to bring the finest young doctors into the field. Fellows – recent graduates of medical school – work with both the clinicians and researchers throughout the ALS Center, learning from the most capable physicians and scientists as they prepare for their own careers in the clinic and the laboratory. These students and trainees help to further the research work of the ALS Center while developing the skills they will need to become independent investigators pursuing even more innovative studies of ALS throughout their careers.

How You Can Help

Philanthropic support is critical to advancing groundbreaking scientific studies that will hold the key to future treatments for ALS. With your help, we can continue the momentum of our research, build on our progress to date, and develop new possible therapies that not only will benefit those seen in our clinics, but will lead to new hope for all individuals with ALS. To make a contribution to **the David Redden ALS Fund** and support the transformative research and educational mission of the Columbia Eleanor and Lou Gehrig ALS Center, please send a check payable to "The Trustees of Columbia University," to Matt Ehrlich in the CUIMC Office of Development, 630 West 168th Street, Suite 2-421, New York, NY 10032, or use the enclosed return envelope. In the memo section of the check, please indicate "David Redden ALS Fund." For questions or inquiries regarding funding opportunities, please call 212-342-4605. Donations can be made online at <https://web.giving.columbia.edu/giveonline/index.jsp?schoolstyle=534> by selecting the "Eleanor and Lou Gehrig ALS Center" from the list of designations at the following link and indicating in the "Comments/Special Instructions" section that the donation is for the David Redden ALS Fund. I hope this is helpful.