



Lupus Foundation of America Funded Studies Focused on Advancing Research and Improving Quality of Life for People with Lupus

Investigators Present Research Findings at 2011 American College of Rheumatology Scientific Meeting

(Washington, DC, November 9, 2011) Data from several studies funded by the Lupus Foundation of America's (LFA) National Research Program were on prominent display this week during the 2011 American College of Rheumatology (ACR) Scientific Meeting in Chicago. The areas of research supported by the LFA and presented during ACR included studies on male lupus, pediatric lupus, quality of life, lupus diagnostic criteria, lupus biomarkers, and neuropsychiatric lupus, which affects the brain and nervous system.

The studies are critically important to advancing the science and medicine of lupus, and improving the quality of life for individuals affected by this unpredictable and potentially life-threatening autoimmune disease. The LFA's National Research Program is unique because it directs LFA research funds where gaps exist in the understanding of lupus, and toward promising areas of study.

Studies and key findings of LFA-funded lupus research presented during the ACR meeting include:

Pediatric lupus

"Ethnic Differences of Early Disease Severity in Pediatric Systemic Lupus Erythematosus at an Urban Tertiary Care Center"

Deborah K. McCurdy, M.D., Clinical Professor of Pediatrics at UCLA School of Medicine

Lupus tends to be more severe in children than in adults. However, little is known about early manifestations of lupus that may be unique to children of different ethnicities. The investigators in this study found that children belonging to ethnic minority groups were diagnosed with lupus earlier and have a more severe disease course than Caucasian children. For more information, read the abstract [here](#).

"Plasma Levels of Osteopontin Identify Patients At Risk For Organ Damage in Systemic Lupus Erythematosus"

Deborah K. McCurdy, M.D., Clinical Professor of Pediatrics at UCLA School of Medicine

A challenge for doctors is being able to identify which of their lupus patients are at risk for organ damage and when to initiate appropriate treatment for potentially life-threatening complications. Investigators discovered that high levels of osteopontin, a protein in the blood, may be a predictor of future disease activity and organ damage in both adults and children with lupus. This biomarker could help physicians determine a proper course of therapy much earlier. For more information, read the abstract [here](#).

Quality of Life

"Spanish LupusPRO Cross Cultural Validation Study For Lupus"

Meenakshi Jolly, M.D., Assistant Professor, Rush University Medical Center

Current patient-reported instruments used to monitor disease activity and quality of life are not adequate for a disease as complex and variable as lupus. LupusPRO is a tool developed specifically for people with lupus to measure changes in quality of life and disease activity. This study validated the Spanish-

translated version of the tool. The Spanish version of LupusPRO may facilitate clinical trials that include self-assessment of lupus disease-related parameters among Latino-Americans. For more information, read the abstract [here](#).

Neuropsychiatric lupus

“Microstructural Abnormalities in White and Deep Gray Matter Visualized within the First Year of Diagnosis in Adolescents with SLE: A Pilot Magnetization Transfer Imaging Study”

Eyal Muscal, M.D., Assistant Professor of Pediatrics at Baylor College of Medicine

Neuropsychiatric lupus develops when lupus affects the central nervous system and can lead to cognitive impairments, which can negatively affect school performance in children with lupus. Doctors need tools to better assess these effects of lupus earlier so that appropriate interventions can help prevent diminished school performance in children with lupus. The study used advanced brain imaging techniques to evaluate changes in the brains of adolescents with lupus during the first two years of lupus diagnosis. The research team reports the ability to detect changes in the brains of children with lupus that may appear normal with the use of conventional brain imaging methods. For more information, read the abstract [here](#).

Male Lupus

“Sex-Specific Genetic Architecture of Systemic Lupus Erythematosus”

Bruce C. Richardson, M.D., Ph.D., Professor of Internal Medicine at the University of Michigan School of Medicine

While males represent only ten percent of people with lupus, they often experience a more severe disease. The exact cause of lupus is unknown. However, researchers believe lupus results from a combination of genetic (heredity), hormonal, and environmental factors. The study report indicated that males required, on average, a higher number of lupus susceptible genes to develop the disease. The data reinforces previous understanding that genes and environmental factors each play a role in lupus, and may help to identify who is at risk for developing the disease. For more information, read the abstract [here](#).

Diagnostic Criteria

“Derivation and Validation of Systemic Lupus International Collaborating Clinics Classification Criteria for Systemic Lupus Erythematosus”

Michelle Petri, M.D., M.P.H., Professor of Medicine at Johns Hopkins University School of Medicine

There is no single test to diagnose lupus. More than half of the people with lupus visit three or more doctors over four or more years to receive an accurate diagnosis. This study evaluated revised criteria for diagnosing lupus. The study found that the proposed criteria performed well in the clinical setting, and provided more inclusive definitions which may lead to earlier and more accurate diagnosis. For more information, read the abstract [here](#).

Biomarkers

“Low Programmed Death Ligand-1 Gene Expression in SLE Monocytes Coregulated by IL-10, TNF- α and TGF- β May Contribute to Chronic T Lymphocyte Activation”

Anne M. Stevens, M.D., Ph.D., Associate Professor of Pediatric Rheumatology at the University of Washington, Seattle Children’s Hospital

People with lupus have compromised immune systems due to the disease and the immune-suppressing medications required to treat it. It can be difficult for doctors to know whether a patient’s symptoms are due to an infection or a lupus flare. Delayed or inappropriate treatment of either condition can be life-threatening. The study evaluated the role of a protein found in the blood, called PD-L1, to help determine whether an illness is lupus-related or the result of an infection. Data from this study could lead to a novel biomarker to aid in rapidly determining appropriate treatment for acutely ill lupus patients. For more information, read the abstract [here](#).