



Lupus Research Program

VISION

To cure lupus through partnership of scientists, clinicians and consumers

MISSION

Fund research to understand, prevent, and diagnose lupus and to improve treatments and quality of life for patients, including Service members, Veterans, and beneficiaries

PROGRAM HISTORY

Lupus is a chronic, heterogeneous autoimmune disease that is difficult to diagnose and treat. Approximately 90% of lupus patients are women, and the disease is more common in women of African American, Hispanic, Asian, and Native American descent than in Caucasian women. Lupus causes inflammation in the skin, joints, kidneys, lungs, heart, and brain. Because it affects numerous parts of the body, people living with lupus experience a wide range of symptoms, including fatigue, arthritis, headaches, weight loss, organ damage, seizures, and strokes. The severity of symptoms can be exacerbated if a patient is experiencing a lupus flare. Treatment options for lupus are highly dependent on an individual patient's symptoms and can include nonsteroidal anti-inflammatory drugs and corticosteroids. Patients are frequently treated with a combination of drugs. Because the symptoms of lupus vary from person to person, the disease is difficult to diagnose. There is currently no single test available that is capable of diagnosing lupus.

The Congressionally Directed Medical Research Programs (CDMRP) has funded lupus research since fiscal year (FY) 2005, when it was included as a topic area for the Peer Review Medical Research Program (PRMRP). A total of \$20.6 million (M) in funding was allocated by the PRMRP across 21 lupus awards from FY05-FY16. In FY17, the Department of Defense (DoD) Lupus Research Program (LRP) was established with an appropriation of \$5M. The program received an additional \$5M in funding in FY18.

MILITARY RELEVANCE

Lupus is a growing medical concern for the military, primarily due to the increasing number of women serving. Lupus affects women at a rate approximately 10 times higher than men, and minority women, whose ranks are growing in the military, are affected at a higher rate than Caucasians. Another reason why lupus is important to the military is that PTSD has been shown to be associated with a 2-fold increase in risk for autoimmunity diseases, including lupus. Other psychiatric disorders that are found at high rates in the military (e.g., depression, anxiety, psychosis) have also been shown to be associated with a 1.5-fold increase in risk for autoimmunity diseases like lupus. Finally, 19,729 outpatient visits occurred between 2006 and 2017 to care for active Service members with lupus, which is another measure of how costly lupus is to the military. Therefore, it is critical to address the growing issue of Service members, Veterans, and beneficiaries with lupus.



FUTURE IMPACT OF THE LRP

Because lupus is a complex disease that impacts multiple parts of a patient's life, the LRP strives to have a broad research scope that comprises all research with the potential to lead toward improvements in patient quality of life, including decreasing time to diagnosis, lessening the severity of symptoms, and improving treatments.

OVERARCHING GOALS

- Advance understanding of subsets of lupus patients, biologically or genetically, to improve appropriate treatment of these patients
- Gain insight into disease mechanisms and heterogeneity by understanding responses to novel and existing interventions
- Improve the quality of life of patients by predicting and preventing lupus flares

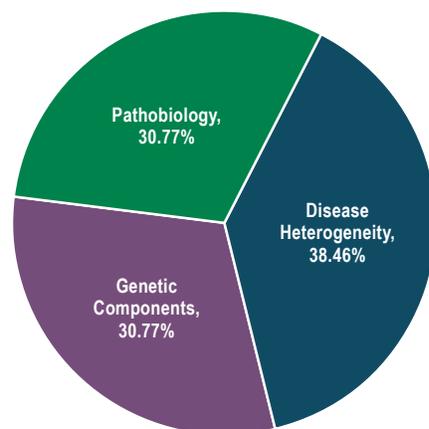
To accomplish these goals, the LRP focuses on high-risk, high-reward research that offers the promise of shifting current paradigms to novel avenues of research with the hope of improving treatments and quality of life for those living with lupus.



LRP-FUNDED RESEARCH

The LRP recommended funding 13 studies in FY17 covering a range of research types, including basic, applied, epidemiological, public health, and translational research. The funded studies cover all of the FY17 LRP's focus areas, including lupus pathobiology, disease heterogeneity, and genetic components. The chart on the right shows the percent of the LRP awards funded in FY17 that were targeted toward each focus area.

FY17 LRP Investment by Focus Area



LOOKING FORWARD – IMPROVING TREATMENT OPTIONS

Disease heterogeneity continues to be one of the greatest obstacles when treating individuals with lupus. In FY17, Dr. Joan Merrill at the Oklahoma Medical Research Foundation was awarded an LRP Impact Award to determine whether lupus patients with a particular immune signature are more likely to respond to commonly used lupus treatments. The results of this study may assist care providers in determining which treatments will be most effective for a given patient.



“Participating in the first-ever Lupus Research Program for the DoD proved not only exhilarating but hopeful. What I came away with is that there is reason to believe that the ‘cruel mystery’ of lupus will be solved, and that by research, this devastating disease will no longer be misunderstood. Though irreversible lupus damage plagues my own life, I am immeasurably grateful to help our younger community look forward to quick diagnosis, appropriate medications, quality of life, a longer life expectancy, and maybe even the cure.”

Kyra Miller, Novice Consumer Reviewer, Lupus Foundation of America



“As a full voting member on the Lupus Research Panel, I had the opportunity to help guide decisions from the perspective of meaningful patient impact. My experience gave me tremendous hope that we are indeed advancing thought processes in lupus research that will ultimately result in improved patient care.”

April Susan Corbett, Experienced Consumer Reviewer, Lupus Foundation of America

For more information about the LRP, please visit cdmrp.army.mil

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