

John Harley, MD, PhD

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Dr. John Harley received both his MD and PhD degrees from the University of Pennsylvania, and is currently a Professor of Medicine and Professor of Immunology at the University of Oklahoma Health Sciences Center. He is also an Adjunct Professor in the Departments of Microbiology and Pathology, and a Staff Physician with the U.S. Department of Veterans Affairs Medical Center in Oklahoma City.

Dr. Harley's research interest is System lupus erythematosus (SLE). SLE is a systemic autoimmune disease that most frequently affects young women in their child-bearing years. His lab has been studying the immune system and genetics of this disease in hopes that a deeper understanding would lead to ways to prevent its sometimes tragic consequences.

When the immune system of a lupus patient develops an "auto" immune response, it makes antibodies that focus the full wrath and force of the human inflammatory system upon their own tissues and in essence promotes self-destruction. Dr. Harley's group has studied the details of exactly what these "auto" antibodies bind. This has led to the possibility that lupus is an unusual consequence of the immune response against a common virus, Epstein-Barr virus. This virus is known to cause mononucleosis, head and neck cancer, and some forms of lymphoma.

On the other side of our laboratory, modern genetics has been applied to study the tendency of lupus to occur in families. The Lupus Multiplex Registry and Repository, a national collection of demographic, diagnostic, clinical and genetic information, was assembled from a few hundred families that have two or more members with lupus. The analyses have identified more than 20 separate genetic effects and have helped identify two of the potentially responsible genes.

Dr. Harley and his group also plan to use the knowledge and lessons learned from their genetic studies research of lupus to build a similar Sjögren's Syndrome (another autoimmune disorder) Registry and Repository for the purpose of finding genetic association for this disease.