

EMBARGOED FOR RELEASE:

CONTACT:

Diann Peterson
Spondylitis Association of America
Phone: 818-981-1616, ext. 226
Fax: 818-981-9826
diann.peterson@spondylitis.org
www.spondylitis.org

Spondylitis Association of America Participates in Study That Uncovers Two Genes Related to Disabling Form of Arthritis

SHERMAN OAKS – (October 21, 2007) – A collaborative effort by an international team of researchers in the U.K., Australia and the U.S has led to the discovery of two genes that cause ankylosing spondylitis, a potentially disabling inflammatory disease.

The findings are published in the November edition of Nature Genetics, a journal that emphasizes research on the genetic basis for common and complex diseases.

John D. Reveille, M.D., professor and director of the Division of Rheumatology and Clinical Immunogenetics at the University of Texas Medical School at Houston, in conjunction with Matthew A. Brown, M.D., Professor of Immunogenetics at the University of Queensland, led research done by the Triple "A" Spondylitis Consortium Genetic Study (i.e. the TASC or Australo-Anglo-American Spondylitis Consortium). The international team of researchers worked with investigators from the British Wellcome Trust Case Control Consortium, and together they made the genetic discovery.

The Spondylitis Association of America (SAA) oversaw the nationwide recruitment of patients and families for the study.

"This is the most significant breakthrough in AS research since HLA-B27 was uncovered 34 years ago and SAA played a significant role in making the study possible," said SAA Associate Executive Director Laurie Savage, who is Co-Principal Investigator for TASC's administrative core.

Reveille said the discovery of genes ARTS1 and IL23R brings the scientific community two steps closer to fully understanding ankylosing spondylitis or AS, a form of arthritis that attacks the spine and can also target other joints and organs in the body.

"We've long known that the HLA-B27 gene accounts for 40 percent of the overall cause of AS," said Reveille, the principal investigator of TASC. "Now we have found two new genes. Together with HLA-B27, these genes account for roughly 70 percent of the overall cause. That means we've almost nailed this disease. Within the next year, I predict we will have identified all the genes that play a role in this insidious disease. There is more exciting news to come."

The recent discovery is based on work from the largest and most comprehensive genome-wide association scan conducted to date. In this part of the research project, investigators were searching for genetic information related AS, as well as autoimmune thyroid disease/Graves' Disease, breast cancer and multiple sclerosis. Reveille said the most significant findings were in AS, a chronic disease that generally strikes patients in their teens, 20s or 30s.

"ARTS1 and IL23R show a new pathway of causation," Reveille said, "and this could lead to new therapies for the arthritic condition, which can cause a complete fusion of the spine, leaving patients unable to straighten and bend." This new pathway is likely to lead to clinical trials within the next couple of years to develop a new class of treatments for AS.

The identification of the two new genes also could help physicians identify patients who are at the highest risk for developing AS.

"For example, if you have a family member with AS, a simple blood test would be able to tell us if you are also at risk," said Reveille. "We could offer screenings for people with back pain. In the past, the HLA-B27 test was all we had. Now we potentially have more tests."

"This is a success story for genetics work, and I think it will lead the way for other work to be done," Reveille said.

About Ankylosing Spondylitis

Spondylitis is the term used to refer to a group of chronic, inflammatory diseases that generally strike young people between the ages of 17 and 35. Typically, spondylitis causes pain and stiffness and, in the most severe cases, can result in a total fusion of the spine and/or neck, leading to disability. Although spondylitis primarily affects the spine, it is not uncommon for the disease to impact the joints of the shoulders, hips, knees and feet, as well as cause inflammation of the eye. More rarely, because AS is a systemic (whole body) condition, other organs such as the heart and lungs can also become involved.

About the Spondylitis Association of America

The Spondylitis Association of America's mission is: To be a leader in the quest to cure ankylosing spondylitis and related diseases, and to empower those affected to live life to the fullest.

###