

RESEARCH BRIEF

The Anterior Cruciate Ligament (ACL) Intervention Study *A Strategy for Drug Discovery in Osteoarthritis*

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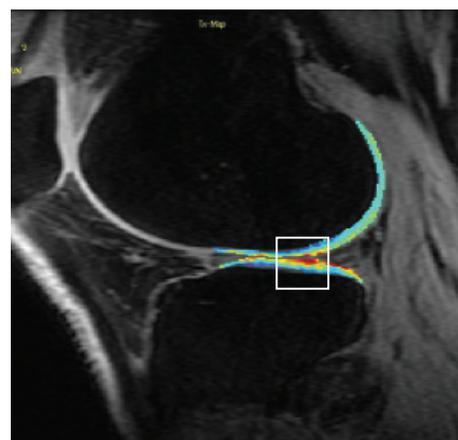
A Message from Dr. John Hardin:

I am pleased to announce that our *Anterior Cruciate Ligament Intervention Study*, with the potential to revolutionize the future treatment of osteoarthritis (OA), is underway with researchers at these prestigious medical centers: the Hospital for Special Surgery in New York, the Mayo Clinic in Rochester, and the University of California in San Francisco.

This distinguished team of investigators will test how well new magnetic resonance imaging (MRI) techniques measure the molecular changes that begin to occur immediately after an anterior cruciate ligament (ACL) tear in the knee, which can be a major risk factor for developing osteoarthritis.

Currently, X-rays are the diagnostic standard for OA used by the Food and Drug Administration (FDA) to measure the benefits of potential OA drugs. However, X-rays can take 10-20 years to show disease progression. Our research will demonstrate the feasibility of using MRI techniques in clinical trials that can potentially lead to the discovery of tools and treatments to detect and reverse OA before symptoms ever appear. The images show the precision of the new technology on my knee.

Focused efforts using advances in technology, genetics, and biomedical research are putting the Arthritis Foundation in the forefront of funding and developing the research narrative for OA. Our hope is to motivate the FDA to change their outcome



I recently had my knees scanned to better understand the imaging protocols of our study. The standard X-ray of my knee (left) shows no abnormality; the cartilage has normal thickness. However, the results of the MRI T1 scan (right) shows the same area of cartilage (red spot) deficient in aggrecan, a feature of early OA that is potentially reversible if we can find the right compound. We expect to see something similar develop very quickly after an ACL tear.

measures for OA treatments and to encourage the pharmaceutical industry to re-engage efforts to develop products for OA.

I thank you for your support of our mission to create a better world for patients through innovative research to accelerate breakthroughs in prevention, treatment, and a cure for arthritis.



John A. Hardin, MD

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