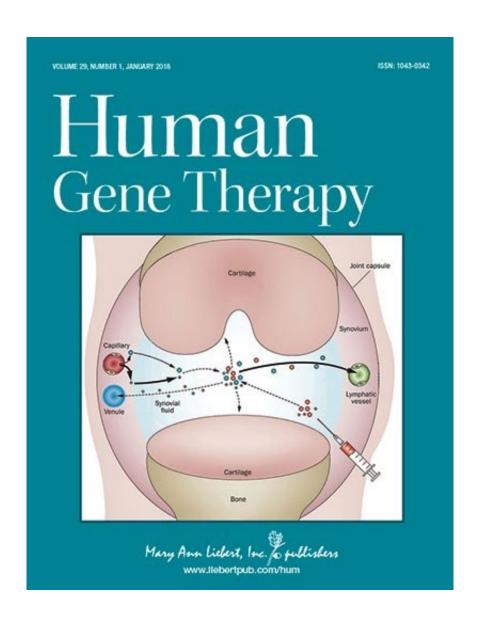


Gene delivery of drugs directly into arthritic joints is making the leap to patients

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Credit: Mary Ann Liebert, Inc., publishers



Localized gene delivery to diseased joints to achieve sustained drug production at the site of osteoarthritis or rheumatoid arthritis is gaining momentum, with clinical trials underway in the U.S. and the first arthritis gene therapy recently approved in Korea. A detailed review of current trends in the field, gene delivery strategies, and ongoing clinical trials and product development are presented in an article published in *Human Gene Therapy*.

The article "Gene Delivery to Joints by Intra-Articular Injection" is coauthored by Christopher Evans, Mayo Clinic (Rochester, MN), Steven Ghivizzani, University of Florida College of Medicine (Gainesville, FL), and Paul Robbins, The Scripps Research Institute (Jupiter, FL). The authors describe the advantages of using gene therapy for localized drug delivery to the joints, including higher drug concentrations at the site of disease and reduced exposure to nontarget organs. They discuss the factors that contribute to selection of a therapeutic transgene and an optimal delivery vector, and review the human clinical trials for arthritis gene therapy in the U.S. that have taken place and are ongoing or pending.

"Arthritis is the most common disorder that is likely to be treatable with gene therapy within the next several years," says Editor-in-Chief Terence R. Flotte, MD, Celia and Isaac Haidak Professor of Medical Education and Dean, Provost, and Executive Deputy Chancellor, University of Massachusetts Medical School, Worcester, MA. "This latest installment of our Target Organ series provides a comprehensive review of the optimal platforms for treating these potentially disabling disorders."

More information: Christopher H. Evans et al, Gene Delivery to Joints by Intra-Articular Injection, *Human Gene Therapy* (2017). DOI: 10.1089/hum.2017.181



Provided by Mary Ann Liebert, Inc

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