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- (71) Applicant: BAYLOR COLLEGE OF MEDICINE
[US/US]; One Baylor Plaza, Houston, Texas 77030 (US).
- (72) Inventors: LEE, Brendan; 2219 Sheridan Street, Houston, TX 77030 (US). GUSE, Kilian; Merimiehenkatu 28 C 42, FIN-00150 Helsinki (FI). RUAN, Zhechao; 1922 Augusto Dr., Houston, TX 77057 (US).
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(54) Title: ADENOVIRAL-BASED BIOLOGICAL DELIVERY AND EXPRESSION SYSTEM FOR USE IN THE TREATMENT OF OSTEOARTHRITIS

(57) Abstract: The invention relates to an adenoviral-based biological delivery and expression system for use in the treatment or prevention of osteoarthritis in human or mammalian joints by long-term inducible gene expression of human or mammalian interleukin-1 receptor antagonist (II-1 Ra) in synovial cells, comprising a helper-dependent adenoviral vector containing a nucleic acid sequence encoding for human or mammalian interleukin-1 receptor antagonist (II-1 Ra), left and right inverted terminal repeats (L ITR and R ITR), the adenoviral packaging signal and non-viral, non-coding stuffer nucleic acid sequences, wherein the expression of the human or mammalian interleukin-1 receptor antagonist (II-1 Ra) gene within synovial cells is regulated by an inflammation-inducible promoter.



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