

IN BRIEF

EXPERIMENTAL ARTHRITIS

Researchers from Korea have shown that sulforaphane, an isothiocyanate produced by cruciferous vegetables, can induce apoptosis of synoviocytes, and can inhibit synovial hyperplasia, the production of interleukin-17 and tumor necrosis factor by rheumatoid T cells, and the proliferation of activated T cells *in vitro*. Sulforaphane also reduced the severity of disease in a mouse model of arthritis. The authors speculate that sulforaphane could be a future therapy for rheumatoid arthritis.

Original article Kong, J. S. *et al.* Inhibition of synovial hyperplasia, rheumatoid T cell activation, and experimental arthritis in mice by sulforaphane, a naturally occurring isothiocyanate. *Arthritis Rheum.* **62**, 159–170 (2010)

OSTEOARTHRITIS

Intra-articular bacterial-derived hyaluronic acid (HA; Hyalubrix®, Fidia SpA, Padova, Italy) is safe and efficacious, according to the results of a pilot prospective, double-blind, randomized 6-month trial of 42 patients with osteoarthritis. Patients were randomly assigned to receive either intra-articular injections of HA or the local analgesic mepivacaine: 6 months after treatment, Lequesne's algofunctional index and visual analog scale pain scores were considerably lower in the HA group than the local anesthetic group, and adverse events were minimal.

Original article Migliore, A. *et al.* Comparative, double-blind, controlled study of intra-articular hyaluronic acid (Hyalubrix®) injections versus local anesthetic in osteoarthritis of the hip. *Arthritis Res. Ther.* **11**, R183 (2009)

CONNECTIVE TISSUE DISEASES

The peroxisome proliferator-activated receptor (PPAR)- γ agonist rosiglitazone can alleviate the persistent fibrotic phenotype of fibroblasts from lesional skin of patients with diffuse cutaneous scleroderma (dcSSc), according to a paper from David Abraham and colleagues. Levels of the transcription factor PPAR γ were shown to be reduced in dcSSc fibroblasts in comparison with fibroblasts from healthy controls before the antifibrotic effects of rosiglitazone in dcSSc were demonstrated.

Original article Shi-wen, X. *et al.* Rosiglitazone alleviates the persistent fibrotic phenotype of lesional skin scleroderma fibroblasts. *Rheumatology (Oxford)* **49**, 259–263 (2010)

EXPERIMENTAL ARTHRITIS

A study from Japan suggests that the serine/threonine inhibitor fasudil could be a novel treatment strategy for rheumatoid arthritis. Fasudil blocked cytokine production by human rheumatoid arthritis fibroblast-like synoviocytes and human endothelial cells, and inhibited endothelial cell activation; this drug was also shown to inhibit nuclear factor- κ B signaling. *In vivo*, fasudil inhibited arthritis development in a rat adjuvant-induced arthritis model.

Original article Okamoto, H. *et al.* Inhibition of NF- κ B signaling by fasudil as a potential therapeutic strategy for rheumatoid arthritis. *Arthritis Rheum.* **62**, 82–92 (2009)