RESEARCH HIGHLIGHTS

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IN BRIEFS

RHEUMATOID ARTHRITIS

In a randomized study of 66 patients with active rheumatoid arthritis, a gluten-free vegan diet was associated with lower BMI and LDL levels, as well as higher titers of antiphosphorylcholine IgM antibodies, compared with a well-balanced nonvegan diet. A gluten-free vegan diet might, therefore, provide beneficial atheroprotective and anti-inflammatory effects in patients with rheumatoid arthritis.

Original article Elkan AC *et al.* (2008) Gluten-free vegan diet induces decreased LDL levels and raised atheroprotective natural antibodies against phosphorylcholine in patients with rheumatoid arthritis: a randomized study. *Arthritis Res Ther* **10**: R34

A mouse study has shown that soluble human $Fc\gamma RIIb$ protein can ameliorate collageninduced arthritis, and reduce messenger RNA levels of inflammatory cytokines as well as serum levels of pathogenic IgG antibodies to collagen type I. This study highlights the therapeutic potential of $Fc\gamma RIIb$ for patients with rheumatoid arthritis.

Original article Magnusson SE *et al.* (2008) Amelioration of collagen-induced arthritis by human recombinant soluble FcgammaRIIb. *Clin Immunol* **127:** 225–233

Rats treated with the apolipoprotein A-1 mimetic peptide D-F4, in combination with pravastatin, showed reduced clinical severity of collagen-induced arthritis compared with vehicle-treated control rats, and reduced erosive disease compared with rats treated with D-F4 or pravastatin alone. The combination therapy was also associated with improved HDL anti-inflammatory properties and, therefore, has good potential in the treatment of patients who have autoimmune diseases associated with increased cardiovascular morbidity and mortality.

Original article Charles-Schoeman C *et al.* (2008) Treatment with an apolipoprotein A-1 mimetic peptide in combination with pravastatin inhibits collagen-induced arthritis. *Clin Immunol* **127:** 234–244

SYSTEMIC LUPUS ERYTHEMATOSUS

Conditioning of donor CD8⁺ T cells with anti-CD3 antibodies improves the success of hematopoietic cell transplantation; however, anti-CD3 antibodies can also trigger cytokine storm syndrome. In a recent study, low doses of the histone deacetylase inhibitor suberoylanilide hydroxamic acid reduced cytokine activity induced by anti-CD3 exposure, and conditioning of donor CD8⁺ T cells with anti-CD3 antibodies and suberoylanilide hydroxamic acid facilitated successful reversal of lupus in mice with glomerulonephritis.

Original article Li N *et al.* (2008) HDAC inhibitor reduces cytokine storm and facilitates induction of chimerism that reverses lupus in anti-CD3 conditioning regimen. *Proc Natl Acad Sci USA* **105:** 4796–4801

TROCHANTERIC BURSITIS

Trochanteric pain was thought to result from inflammation of the subgluteus maximus bursa until imaging studies recently provided evidence against this etiology. In a small, prospective, observational study, bursae of patients with clinical trochanteric bursitis had no histopathological signs of acute or chronic inflammation.

Original article Silva F *et al.* (2008) Trochanteric bursitis: refuting the myth of inflammation. *J Clin Rheumatol* **14**: 82–86

METABOLIC BONE DISEASE

Activin A signal transduction might be a good therapeutic target in patients with diseases of skeletal fragility. In a recent mouse study, pharmacologic blockade of the high-affinity type II activin receptor resulted in increased bone formation, bone mass and bone strength in ovariectomized mice with established bone loss and in healthy controls.

Original article Pearsall RS *et al.* (2008) A soluble activin type IIA receptor induces bone formation and improves skeletal integrity. *Proc Natl Acad Sci USA* **105**: 7082–7087