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(54) **USE OF ANABOLIC AGENTS, ANTI-CATABOLIC AGENTS, ANTIOXIDANT AGENTS AND ANALGESICS FOR PROTECTION, TREATMENT AND REPAIR OF CONNECTIVE TISSUES IN HUMANS AND ANIMALS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 888 days.

This patent is subject to a terminal disclaimer.

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(51) **Int. Cl.**

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(52) **U.S. Cl.**
USPC **424/757**; 514/23; 514/42; 514/62; 514/55; 514/457

(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

The present invention relates to compositions for the modulation of inflammation in connective tissues in humans and animals and the modulation of markers of such inflammation, including COX-2, TNF-a, IL-1 (3, iNOS, p38, and chemokines, comprising any or all of anabolic, anti-catabolic, antioxidant and analgesic agents, including aminosugars, S-adenosylmethionine, arachadonic acid, GAGs, including pentosan, collagen type II, tetracyclines or tetracycline-like compounds, diacerin, super oxide dismutase, L-ergothioneine, methyl sulfanylmethane, one or more avocado/soybean unsaponifiables, and an analgesic, e.g., acetaminophen, and to methods of treating humans and animals by administration of these novel compositions to humans and animals in need thereof.

17 Claims, 18 Drawing Sheets