

United States Patent [19]

McNamara et al.

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[54] **NON-ANTIBACTERIAL TETRACYCLINE COMPOSITIONS POSSESSING ANTI-COLLAGENOLYTIC PROPERTIES AND METHODS OF PREPARING AND USING SAME**

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Related U.S. Application Data

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[51] Int. Cl.⁴ **A61K 31/65**

[52] U.S. Cl. **514/152**

[58] Field of Search **514/152**

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[57] ABSTRACT

Tetracyclines having substantially no effective antibiotic or antibacterial activity and possessing anti-collagen-destructive enzyme activity or anti-collagenase activity and compositions containing the same have been found useful as anti-collagenolytic agents. Such tetracyclines and compositions containing the same are useful in the treatment of periodontal diseases, corneal ulcers, bone deficiency disorders, rheumatoid arthritis diseases characterized by excessive collagen destruction. A special aspect of this invention involves the incorporation of such tetracyclines in animal feed compositions for improved animal nutrition, such as may be evidenced by increased weight gain.

5 Claims, 6 Drawing Figures