US005919775A

United States Patent [19]

Amin et al.

[11] **Patent Number: 5,919,775**

[45] **Date of Patent: Jul. 6, 1999**

[54] **METHOD FOR INHIBITING EXPRESSION OF INDUCIBLE NITRIC OXIDE SYNTHASE WITH TETRACYCLINE**

[75] Inventors: **Ashok R. Amin**, Union, N.J.; **Steven B. Abramson**, Rye, N.Y.; **Lorne M. Golub**; **Nungavaram S. Ramamurthy**, both of Smithtown, N.Y.; **Thomas F. McNamara**, Port Jefferson, N.Y.; **Robert A. Greenwald**, Melville, N.Y.; **Howard Trachtman**, New Rochelle, N.Y.

[73] Assignees: **The Research Foundation of The State University of New York**, Stony Brook; **Hospital For Joint Diseases**, New York, both of N.Y.

[21] Appl. No.: **09/061,286**

[22] Filed: **Apr. 16, 1998**

Related U.S. Application Data

[62] Division of application No. 08/697,815, Aug. 30, 1996, Pat. No. 5,789,395.

[51] **Int. Cl.**[6] **A61K 31/65**

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

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

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Primary Examiner—Jon P. Weber
Attorney, Agent, or Firm—Hoffmann & Baron, LLP

[57] **ABSTRACT**

The invention is a method of inhibiting the production of nitric oxide (NO) in an in vivo, in vitro, or ex vivo biological system. The method employs a tetracycline compound to inhibit the production of NO and/or to inhibit the expression or activity of an inducible isoform of nitric oxide synthase (iNOS). Preferably, the tetracycline compound has inhibitory activity for metalloproteinases. Also it is preferred that the tetracycline compound is provided to the biological system in an amount which has little or no antibacterial activity in the system. Accordingly, preferred tetracycline compounds are tetracycline compounds which have be modified to reduce or eliminate their antimicrobial activity. The method can be used to treat medical conditions in mammals characterized by NO production mediated by iNOS, including, for example, inflammatory conditions.

10 Claims, 10 Drawing Sheets