



US006746671B2

(12) **United States Patent**
Steidler et al.

(10) **Patent No.:** US 6,746,671 B2
(45) **Date of Patent:** Jun. 8, 2004

(54) **USE OF A CYTOKINE-PRODUCING LACTOCOCCUS STRAIN TO TREAT COLITIS**

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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 0 days.

(21) Appl. No.: **09/838,718**

(22) Filed: **Apr. 19, 2001**

(65) **Prior Publication Data**

US 2002/0019043 A1 Feb. 14, 2002

Related U.S. Application Data

(63) Continuation of application No. PCT/EP99/07800, filed on Oct. 6, 1999.

(30) **Foreign Application Priority Data**

Oct. 20, 1998 (EP) 98203529

(51) **Int. Cl.⁷** **A01N 63/00; A61K 48/00**

(52) **U.S. Cl.** **424/93.2; 435/252.3; 435/471; 435/243; 424/93.4**

(58) **Field of Search** **424/93.2, 93.4, 424/184.1; 435/243, 471, 252.1, 252.3, 252.31, 461; 514/44**

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(57) **ABSTRACT**

An administration strategy for the delivery at the intestinal mucosa of cytokines or cytokine antagonists, preferably of acid sensitive anti-inflammatory agents, for example, IL10 and/or soluble TNF receptor via the oral route. Preferably, inoculation occurs along with a suspension of recombinant *Lactococcus lactis* cells, which had been engineered to produce the respective proteins.

14 Claims, 11 Drawing Sheets