

## Title (en)

VACCINES AGAINST DISEASES CAUSED BY ENTEROPATHOGENIC ORGANISMS USING ANTIGENS ENCAPSULATED WITHIN BIODEGRADABLE-BIOCOMPATIBLE MICROSPHERES

## Title (de)

IMPfstoffe gegen Krankheiten hervorgerufen durch enteropathogene Organismen unter Verwendung von Antigenen, die in biologisch abbaubare und biologisch-verträgliche Mikrosphären eingekapselt sind

## Title (fr)

Vaccins contre des maladies causées par des organismes enteropathogènes utilisant des antigènes encapsulés dans des microsphères biodégradables et biocompatibles

## Publication

**EP 0681478 A4 20000906 (EN)**

## Application

**EP 94911515 A 19940309**

## Priority

- US 9402536 W 19940309
- US 3494993 A 19930322

## Abstract (en)

[origin: WO9421289A1] This invention is directed to oral parenteral and intestinal vaccines and their use against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres.

## IPC 1-7

**A61K 39/02**; **A61K 9/26**; **A61K 39/29**; **A61K 39/108**; **A61K 9/52**

## IPC 8 full level

**A61K 9/16** (2006.01); **A61K 39/02** (2006.01); **A61K 39/108** (2006.01); **A61K 39/29** (2006.01)

## CPC (source: EP)

**A61K 9/1647** (2013.01); **A61K 39/0258** (2013.01); **A61K 39/12** (2013.01); **A61K 39/292** (2013.01); **A61K 2039/545** (2013.01); **A61K 2039/55505** (2013.01); **A61K 2039/55555** (2013.01); **C12N 2730/10134** (2013.01); **Y02A 50/30** (2017.12)

## Citation (search report)

- [X] WO 9219263 A1 19921112 - US ARMY [US]
- [XY] REID R H ET AL: "Preclinical evaluation of microencapsulated CFA/II oral vaccine against enterotoxigenic Escherichia coli.", INTERNATIONAL CONFERENCE ON VACCINES FOR ENTERIC DISEASES;CAMBRIDGE, ENGLAND, UK; APRIL 13-15, 1992, vol. 11, no. 2, 1993, Vaccine 1993, pages 159 - 167, XP000886976, ISSN: 0264-410X
- [X] EDELMAN ROBERT ET AL: "Immunization of rabbits with enterotoxigenic Escherichia coli colonization factor antigen (CFA/II) encapsulated in biodegradable microspheres of poly (lactide-co-glycolide).", INTERNATIONAL CONFERENCE ON VACCINES FOR ENTERIC DISEASES;CAMBRIDGE, ENGLAND, UK; APRIL 13-15, 1992, vol. 11, no. 2, 1993, Vaccine 1993, pages 155 - 158, XP000886975, ISSN: 0264-410X
- [Y] BOYLAN M ET AL: "NUCLEOTIDE SEQUENCE OF THE GENE ENCODING THE MAJOR SUBUNIT OF CS3 FIMBRIAE OF ENTEROTOXIGENIC ESCHERICHIA-COLI", INFECTION AND IMMUNITY 1988, vol. 56, no. 12, 1988, pages 3297 - 3300, XP000909617, ISSN: 0019-9567
- [PX] REID R ET AL: "Colonization factor antigen/II (CFA/II) incorporated into biodegradable, biocompatible microspheres as an intestinal vaccine against enterotoxigenic Escherichia coli: A safety, immunization, and efficacy human study.", JOINT MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS AND THE CLINICAL IMMUNOLOGY SOCIETY;DENVER, COLORADO, USA; MAY 21-25, 1993, vol. 150, no. 8 PART 2, 1993, Journal of Immunology 1993, pages 323A, XP000909651, ISSN: 0022-1767
- [A] NELLORE R ET AL: "APPLICATION OF BIODEGRADABLE MICROSPHERES TO HEPATITIS B SURFACE ANTIGEN VACCINATION SYSTEM", PHARMACEUTICAL RESEARCH (NEW YORK) 1991, vol. 8, no. 10 SUPPL., 1991, pages S151, XP002026578, ISSN: 0724-8741
- [A] LEVINE M M ET AL: "COLI SURFACE ANTIGENS 1 AND 3 OF COLONIZATION FACTOR ANTIGEN II POSITIVE ENTERO TOXIGENIC ESCHERICHIA-COLI MORPHOLOGY PURIFICATION AND IMMUNE RESPONSES IN HUMANS", INFECTION AND IMMUNITY 1984, vol. 44, no. 2, 1984, pages 409 - 420, XP000886967, ISSN: 0019-9567
- See references of WO 9421289A1

## Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

## DOCDB simple family (publication)

**WO 9421289 A1 19940929**; AU 6400194 A 19941011; EP 0681478 A1 19951115; EP 0681478 A4 20000906

## DOCDB simple family (application)

**US 9402536 W 19940309**; AU 6400194 A 19940309; EP 94911515 A 19940309