



(11) **EP 1 749 885 B8**

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:
Corrected version no 1 (W1 B1)
Corrections, see
Bibliography INID code(s) 72

(51) Int Cl.:
C12N 7/04 (2006.01) **A61K 39/12** (2006.01)
C07K 14/18 (2006.01)

(48) Corrigendum issued on:
16.01.2013 Bulletin 2013/03

(45) Date of publication and mention
of the grant of the patent:
05.12.2012 Bulletin 2012/49

(21) Application number: **06011790.0**

(22) Date of filing: **05.09.2002**

(54) **Infectious and attenuated bovine viral diarrhea virus vaccine**

Impfstoff von infektiösen und attenuierten Rinderdiarrhoeviren

Vaccin infectieux et atténues du virus de la diarrhée virale bovine

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
IE IT LI LU MC NL PT SE SK TR**

(30) Priority: **06.09.2001 DE 10143813**

(43) Date of publication of application:
07.02.2007 Bulletin 2007/06

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
02797952.5 / 1 440 149

(73) Proprietor: **Boehringer Ingelheim Vetmedica
GmbH
55216 Ingelheim am Rhein (DE)**

(72) Inventors:
• **Elbers, Knut
55216 Ingelheim am Rhein (DE)**
• **Fetzer, Christiane
48163 Münster (DE)**
• **von Freyburg, Martina
55131 Mainz (DE)**
• **Meyers, Gregor
17498 Neuenkirchen-Wampen (DE)**

(74) Representative: **HOFFMANN EITLE
Patent- und Rechtsanwälte
Arabellastrasse 4
81925 München (DE)**

(56) References cited:
WO-A-01/39801

- **MEYER CHRISTIANE ET AL: "Recovery of virulent and RNase-negative attenuated type 2 bovine viral diarrhea viruses from infectious cDNA clones." JOURNAL OF VIROLOGY, vol. 76, no. 16, August 2002 (2002-08), pages 8494-8503, XP002251604 August, 2002 ISSN: 0022-538X**
- **DATABASE EMBL [Online] XP002251610 retrieved from EMBL Database accession no. AF145967 -& DATABASE EMBL [Online] 14 June 1999 (1999-06-14), XP002437779 retrieved from EMBL-SVA Database accession no. AF145967**
- **RIDPATH JULIA F ET AL: "The genomic sequence of a virulent bovine viral diarrhea virus (BVDV) from the type 2 genotype: Detection of a large genomic insertion in a noncytopathic BVDV." VIROLOGY, vol. 212, no. 1, 1995, pages 39-46, XP002251605 ISSN: 0042-6822**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 1 749 885 B8

- ODEÓN A C ET AL: "Experimental infection of calves with bovine viral diarrhea virus genotype II (NY-93)." JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION: OFFICIAL PUBLICATION OF THE AMERICAN ASSOCIATION OF VETERINARY LABORATORY DIAGNOSTICIANS, INC. UNITED STATES MAY 1999, vol. 11, no. 3, May 1999 (1999-05), pages 221-228, XP009015305 ISSN: 1040-6387
- TOPLIFF CHRISTINA L ET AL: "Virulence markers in the 5' untranslated region of genotype 2 bovine viral diarrhea virus isolates." VIROLOGY, vol. 250, no. 1, 10 October 1998 (1998-10-10), pages 164-172, XP002251606 ISSN: 0042-6822
- KUEMMERER BEATE M ET AL: "Correlation between point mutations in NS2 and the viability and cytopathogenicity of Bovine viral diarrhea virus strain Oregon analyzed with an infectious cDNA clone." JOURNAL OF VIROLOGY, vol. 74, no. 1, January 2000 (2000-01), pages 390-400, XP002251607 ISSN: 0022-538X
- MEYERS GREGOR ET AL: "Recovery of cytopathogenic and noncytopathogenic bovine viral diarrhea viruses from cDNA constructs." JOURNAL OF VIROLOGY, vol. 70, no. 12, 1996, pages 8606-8613, XP002251609 ISSN: 0022-538X
- VASSILEV V ET AL: "Authentic and full-length genomic cDNA clones of BVDV that yield infectious transcripts" JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 71, no. 1, 1997, pages 471-478, XP002144456 ISSN: 0022-538X
- VAN DER POEL W H ET AL: "Experimental reproduction of respiratory disease in calves with non-cell-culture-passaged bovine respiratory syncytial virus." THE VETERINARY QUARTERLY SEP 1996, vol. 18, no. 3, September 1996 (1996-09), pages 81-86, XP009041333 ISSN: 0165-2176