

Title (en)  
\$(VIBRIO CHOLERAЕ) 01 (CVD111) AND NON-01 (CVD112 AND CVD112RM) SEROGROUP VACCINE STRAINS AND METHODS OF MAKING SAME

Title (de)  
IMPFSTÄMME DER SEROGRUPPE 01 (CVD111) UND NICHT-01 (CVD112 UND CVD112RM) VON -(VIBRIO CHOLERAЕ) UND METHODEN IHRER HERSTELLUNG

Title (fr)  
SOUCHES DE VACCINS DES SEROGROUPES 01 (CVD111) ET NON-01 (CVD112 ET CVD112RM) DU \$(VIBRIO CHOLERAЕ) ET PROCEDES DE FABRICATION DESDITES SOUCHES

Publication  
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Application  
**EP 94930665 A 19941007**

Priority  
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Abstract (en)  
[origin: WO9510300A1] Avirulent *Vibrio cholerae* strains of 01 (CVD111) and non-01 (CVD112 and CVD112RM) serogroups having the DNA of the cholera toxin core and the RS1 sequences of the cholera toxin locus deleted, and further having a DNA encoding a resistance to mercury, and a DNA encoding the cholera toxin B subunit, or a part thereof sufficient to confer immunogenicity, re-inserted in the chromosome. Methods of making the avirulent *V. cholerae* 01 and non-01 strains of the invention, and cholera vaccines using these strains.

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IPC 8 full level  
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**A61K 39/107** (2013.01 - EP); **A61P 31/04** (2017.12 - EP); **C07K 14/28** (2013.01 - EP); **C12N 1/20** (2013.01 - KR); **A61K 2039/522** (2013.01 - EP); **Y02A 50/30** (2017.12 - EP)

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• See references of WO 9510300A1

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