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(21) International Application Number: PCT/GB99/00935 (22) International Filing Date: 25 March 1999 (25.03.99) (30) Priority Data: 9806449.6 25 March 1998 (25.03.98) GB (71) Applicant (for all designated States except US): PEPTIDE THERAPEUTICS LIMITED [GB/GB]; Peterhouse Technology Park, 100 Fulbourn Road, Cambridge CB1 9PT (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): CHATFIELD, Steven, Neville [GB/GB]; Commonwealth Building, ICSM, Hammersmith Campus, Ducane Road, London W12 0NN (GB). (74) Agents: WOODS, Geoffrey, Corlett et al.; J.A. Kemp & Co., 14 South Square, Gray's Inn, London WC1R 5LX (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: BACTERIA ATTENUATED BY A NON-REVERTING MUTATION IN EACH OF THE AROC, OMPF AND OMPC GENES, USEFUL AS VACCINES (57) Abstract The invention provides a bacterium attenuated by a non-reverting mutation in each of the aroC gene, the ompF gene and the ompC gene. The bacterium is useful as a vaccine. The bacterium may, for example, be an attenuated strain of E.coli useful in vaccination against diarrhoea.		