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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>A61K 9/10, 9/66, 47/34</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 98/43615</b><br><b>(43) International Publication Date:</b> 8 October 1998 (08.10.98)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>(21) International Application Number:</b> PCT/US98/06563<br><b>(22) International Filing Date:</b> 2 April 1998 (02.04.98)<br><br><b>(30) Priority Data:</b><br>60/042,280      2 April 1997 (02.04.97)      US<br>60/061,367      8 October 1997 (08.10.97)      US<br><br><b>(71)(72) Applicants and Inventors:</b> PEPPAS, Nicholas, A. [US/US]; 7502 Dubonnet Way, Indianapolis, IN 46278 (US). LOWMAN, Anthony, M. [US/US]; 12 Waterford Way, Wallingford, PA 19086 (US). NAGAI, Tsuneji [JP/JP]; Honkomagome 1-23-10-103, Bunkyo-ku, Tokyo 113-0021 (JP). MORISHITA, Mariko [JP/JP]; Matsugaoka 1-6-7, Nakano-ku, Tokyo 165-0024 (JP).<br><br><b>(74) Agent:</b> LAMMERT, Steven, R.; Barnes & Thornburg, 11 South Meridian Street, Indianapolis, IN 46204 (US). |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, 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, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, 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, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.<br/>         Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> |
| <b>(54) Title:</b> METHOD FOR ORAL DELIVERY OF PROTEINS<br><br><b>(57) Abstract</b><br><p>A composition and method are described for the oral administration of bioactive components to vertebrates. The method comprises the step of orally administering the vertebrate a composition comprising a swellable hydrogel matrix and a bioactive composition contained within the hydrogel matrix.</p>                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |