



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| <b>(51) International Patent Classification <sup>7</sup>:</b><br><b>A61K 39/00, 39/002, C07H 1/00, 3/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 00/53220</b><br><b>(43) International Publication Date:</b> 14 September 2000 (14.09.00)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>(21) International Application Number:</b> PCT/US00/06404<br><b>(22) International Filing Date:</b> 10 March 2000 (10.03.00)<br><b>(30) Priority Data:</b><br>60/123,931      12 March 1999 (12.03.99)      US<br><b>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application</b><br>US      60/123,931 (CON)<br>Filed on      12 March 1999 (12.03.99)<br><b>(71) Applicant (for all designated States except US):</b> UNIVERSITY OF MASSACHUSETTS [US/US]; 26th Floor, One Beacon Street, Boston, MA 02108 (US).<br><b>(72) Inventor; and</b><br><b>(75) Inventor/Applicant (for US only):</b> SEMPREVIVO, Lloyd, H. [US/US]; 324 Locks Village Road, Wendell, MA 01379 (US).<br><b>(74) Agent:</b> FASSE, J., Peter; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US). |           | <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, 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, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, 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).<br><br><b>Published</b><br><i>With international search report.</i> |
| <b>(54) Title:</b> LIPOGLYCAN COMPOSITIONS AND METHODS OF TREATING PARASITIC INFECTIONS<br><b>(57) Abstract</b><br><p>A composition for and a method of eliciting in a vertebrate a protective immune response against a eukaryotic parasite are disclosed. The method includes administering to the vertebrate a composition having a carrier group coupled to an oligosaccharide obtained from a lipoglycan found on the surface of a eukaryote. The composition is administered in an amount sufficient to elicit a protective immune response against the parasite.</p>                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |