

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
03 March 2022 (03.03.2022)



(10) International Publication Number
WO 2022/043238 A1

(51) International Patent Classification:

A61K 39/095 (2006.01) C07K 14/22 (2006.01)
A61P 31/04 (2006.01) A61K 39/00 (2006.01)

(21) International Application Number:

PCT/EP2021/073217

(22) International Filing Date:

23 August 2021 (23.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2013262.7 25 August 2020 (25.08.2020) GB

(71) Applicant: **GLAXOSMITHKLINE BIOLOGICALS SA** [BE/BE]; rue de l'Institut 89, 1330 Rixensart (BE).

(72) Inventors: **ADAMO, Roberto**; GSK Vaccines, Via Fiorentina, 1, 53100 Siena (IT). **ROMANO, Maria Rosaria**; GSK Vaccines, Via Fiorentina, 1, 53100 Siena (IT). **TONTINI, Marta**; GSK Vaccines, Via Fiorentina, 1, 53100 Siena (IT).

(74) Agent: **BAKER, Suzanne Jane**; GlaxoSmithKline, Global Patents (CN925.1), 980 Great West Road, Brentford Middlesex TW8 9GS (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) Title: PENTAVALENT VACCINE AGAINST NEISSERIA MENINGITIDIS COMPRISING A SYNTHETIC MEN A ANTI-GEN

(57) Abstract: The inventors have identified a combined vaccine for immunisation against bacterial meningitis caused by multiple pathogens.



WO 2022/043238 A1