

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
23 June 2022 (23.06.2022)



(10) International Publication Number
WO 2022/129881 A1

(51) International Patent Classification:

A61K 39/09 (2006.01) A61K 39/12 (2006.01)

A61K 39/02 (2006.01)

(21) International Application Number:

PCT/GB2021/053264

(22) International Filing Date:

13 December 2021 (13.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2019767.9 15 December 2020 (15.12.2020) GB

(71) Applicant: CHAIN BIOTECHNOLOGY LIMITED

[GB/GB]; James Cowper LLP, 2 Chawley Park, Cumnor Hill, Oxford OX2 9GG (GB).

(72) Inventors: GREEN, Edward; James Cowper LLP, 2

Chawley Park, Cumnor Hill, Oxford OX2 9GG (GB).

BRADLEY, Benjamin Michael; James Cowper LLP, 2

Chawley Park, Cumnor Hill, Oxford OX2 9GG (GB).

JIANG, Shisong; Oxford Vacmedix, The Magdalen Cen-

tre, Oxford Science Park, Oxford OX4 4GA (GB). EDWARDS, Richard Mark; James Cowper LLP, 2 Chawley Park, Cumnor Hill, Oxford OX2 9GG (GB).

(74) Agent: LINEHAN, Sheena Alice; Potter Clarkson, The

Belgrave Centre, Talbot Street, Nottingham NG1 5GG (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,

(54) Title: COMPOSITIONS AND METHODS

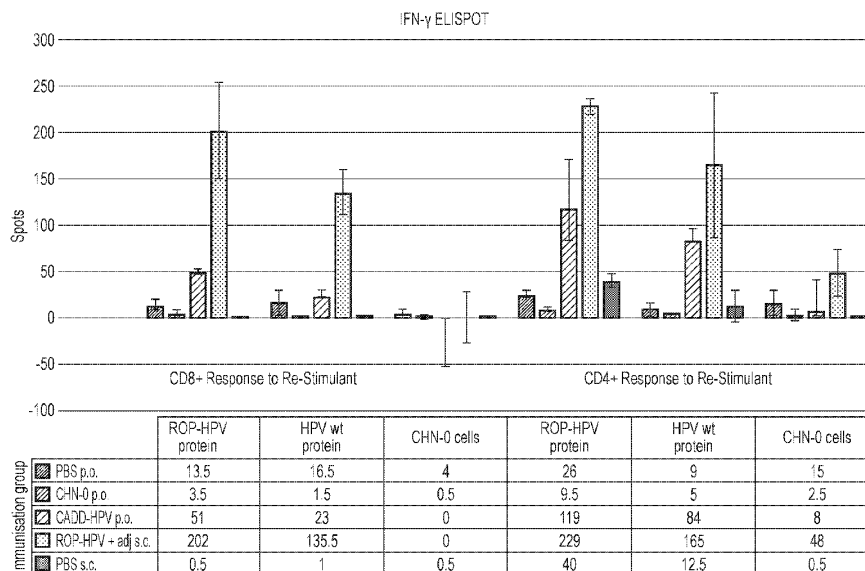


FIG. 6

(57) Abstract: A bacterium of the class Clostridia comprising a heterologous nucleic acid molecule encoding at least one antigen, wherein the bacterium is capable of expressing the antigen in an intracellular compartment of the bacterium during anaerobic cell growth, and wherein at least one antigen is an infectious agent antigen or a tumour antigen.

[Continued on next page]

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).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*