



- (51) International Patent Classification:
A61K 39/00 (2006.01)
- (21) International Application Number:
PCT/US2022/026354
- (22) International Filing Date:
26 April 2022 (26.04.2022)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
17/243,096 28 April 2021 (28.04.2021) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 17/243,096 (CON)
Filed on 28 April 2021 (28.04.2021)
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- (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, JM, 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.

(54) Title: COMPOSITIONS AND METHOD FOR OPTIMIZED PEPTIDE VACCINES USING RESIDUE OPTIMIZATION

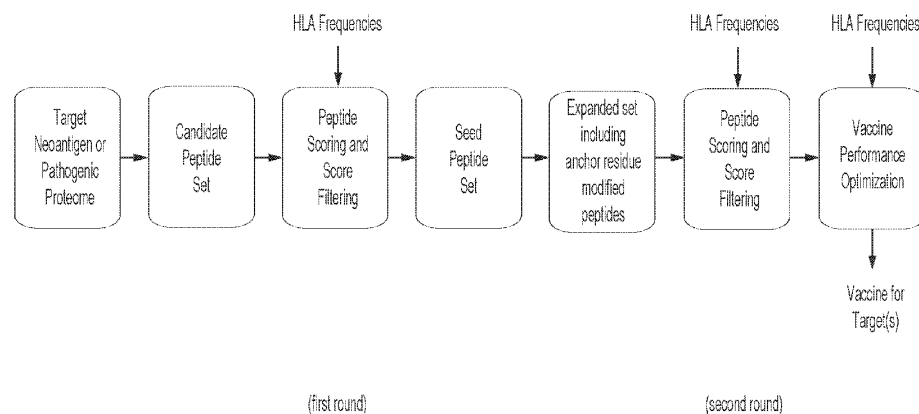


FIG. 1

(57) Abstract: Described herein is an immunogenic composition comprising nucleic acid sequences encoding two or more amino acid sequences selected from the group consisting of SEQ ID NOs: 19 to 50. Also described herein is an immunogenic composition comprising nucleic acid sequences encoding two or more amino acid sequences selected from the group consisting of SEQ ID NOs: 141 to 272. Also described herein is an immunogenic composition comprising nucleic acid sequences encoding two or more amino acid sequences selected from the group consisting of SEQ ID NOs: 273 to 322. Also described herein is an immunogenic composition comprising nucleic acid sequences encoding two or more amino acid sequences selected from the group consisting of SEQ ID NOs: 354 to 458.

[Continued on next page]

(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).

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