



- (51) **International Patent Classification:**
C12N 5/0781 (2010.01) *G01N 33/50* (2006.01)
- (21) **International Application Number:**
PCT/US2022/015279
- (22) **International Filing Date:**
04 February 2022 (04.02.2022)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/146,135 05 February 2021 (05.02.2021) US
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(54) **Title:** NON-TERMINAL ANTIBODY DISCOVERY METHODS AND SINGLE CELL ASSAYS

FIG. 1A
Traditional Transgenic Mouse Hybridoma
Generation Method

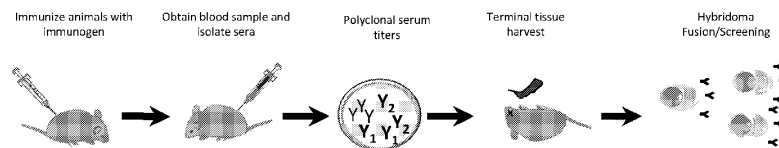
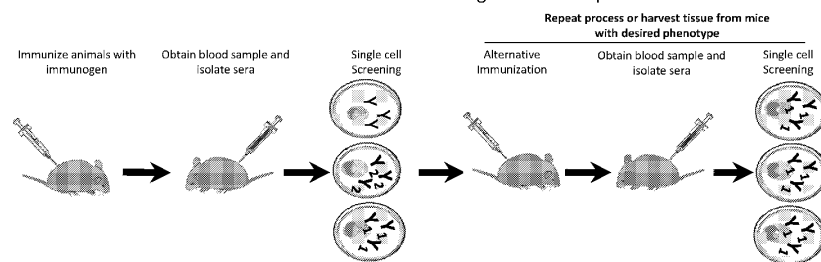


FIG. 1B
Non-Terminal Method for Monitoring Immune Response



(57) **Abstract:** Provided herein are methods of monitoring for the production of select antibodies in a non-human animal, comprising (a) immunizing a non-human animal with an immunogen; (b) obtaining a blood sample comprising antibody secreting cells (ASCs) from said non-human animal; and (c) individually assaying ASCs present in the blood sample, or a fraction thereof, for the production of select antibodies. Methods of guiding antibody production in a non-human animal for the production of select antibodies are also provided. In exemplary embodiments, the method comprises performing a cycle of (a) to (c), as above, and repeating the cycle when the percentage of ASCs producing select antibodies is below a threshold. In various aspects, the cycle is repeated until the percentage of ASCs producing select antibodies is at or above a threshold. Single cell assays are further provided herein.

[Continued on next page]

(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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*