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- (71) **Applicant: AMGEN INC.** [US/US]; One Amgen Center Drive, Thousand Oaks, California 91320-1799 (US).
- (72) **Inventors: MCFADDEN, Karyn E.**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail

Stop 28-5-A, Thousand Oaks, California 91320-1799 (US). **CHAN, Brian M.**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail Stop 28-5-A, Thousand Oaks, California 91320-1799 (US). **MURAWSKY, Christopher**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail Stop 28-5-A, Thousand Oaks, California 91320-1799 (US). **WINTERS, Aaron George**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail Stop 28-5-A, Thousand Oaks, California 91320-1799 (US). **SANTOS, Daniel**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail Stop 28-5-A, Thousand Oaks, California 91320-1799 (US).

- (74) **Agent: HONG, Julie J.**; c/o Amgen Inc., One Amgen Center Drive, Law Dept-Patent Operations, Mail Stop 28-5-A, Thousand Oaks, California 91320-1799 (US).

(54) **Title: NON-TERMINAL ANTIBODY DISCOVERY METHODS AND SINGLE CELL ASSAYS**

FIG. 1A
Traditional Transgenic Mouse Hybridoma
Generation Method

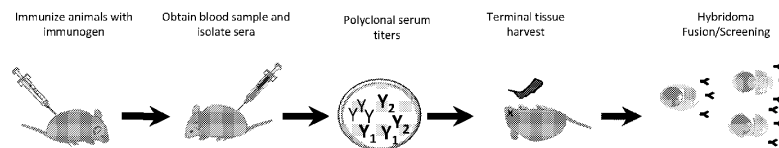
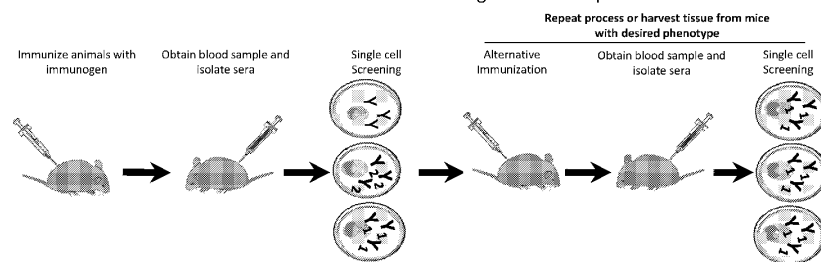


FIG. 1B
Non-Terminal Method for Monitoring Immune Response



(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]

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