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(71) Applicant: **NOVAVAX, INC.** [US/US]; 21 Firstfield Road, Gaithersburg, Maryland 20878 (US).

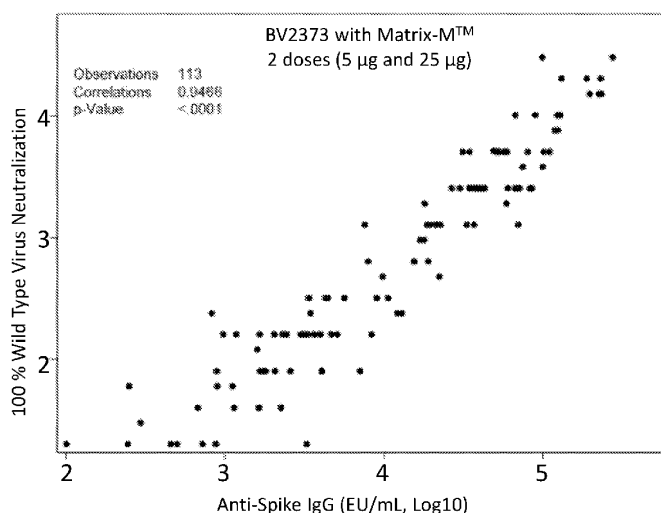
(72) Inventors: **SMITH, Gale**; c/o NOVAVAX, INC., 21 Firstfield Road, Gaithersburg, Maryland 20878 (US). **MASSARE, Michael J.**; c/o NOVAVAX, INC., 21 Firstfield Road, Gaithersburg, Maryland 20878 (US). **TIAN, Jing-Hui**; c/o NOVAVAX, INC., 21 Firstfield Road, Gaithersburg, Maryland 20878 (US).

(74) Agent: **BROWN, Fraser** et al.; c/o COOLEY LLP, 1299 Pennsylvania Avenue, N.W., Suite 700, Washington, District of Columbia 20004-2400 (US).

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Fig. 44C



(57) Abstract: Disclosed herein are coronavirus Spike (S) proteins and nanoparticles comprising the same, which are suitable for use in vaccines. The nanoparticles present antigens from pathogens surrounded to and associated with a detergent core resulting in enhanced stability and good immunogenicity. Dosages, formulations, and methods for preparing the vaccines and nanoparticles are also disclosed.

[Continued on next page]

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