

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 October 2019 (17.10.2019)

WIPO | PCT

(10) International Publication Number
WO 2019/199476 A9

(51) International Patent Classification:

C07K 16/24 (2006.01) *C07K 16/00* (2006.01)
C07K 14/705 (2006.01) *C07K 16/06* (2006.01)
A61K 38/17 (2006.01) *C07K 1/34* (2006.01)
A61K 39/395 (2006.01)

(21) International Application Number:

PCT/US2019/024683

(22) International Filing Date:

28 March 2019 (28.03.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/656,687 12 April 2018 (12.04.2018) US

(71) Applicant: **AMGEN INC.** [US/US]; One Amgen Center,
Thousand Oaks, California 91320 (US).

(72) Inventors: **CALLAHAN, William**; 1104 Woodridge Avenue,
Thousand Oaks, California 91362 (US). **DESANTO, Lorenzo**; 23114 Vista Delgado Drive, Valencia,
California 91354 (US). **TALLEY, Clea**; 2621 Paseo Yolo,
Camarillo, California 93010 (US). **WEXLER-COHEN,**

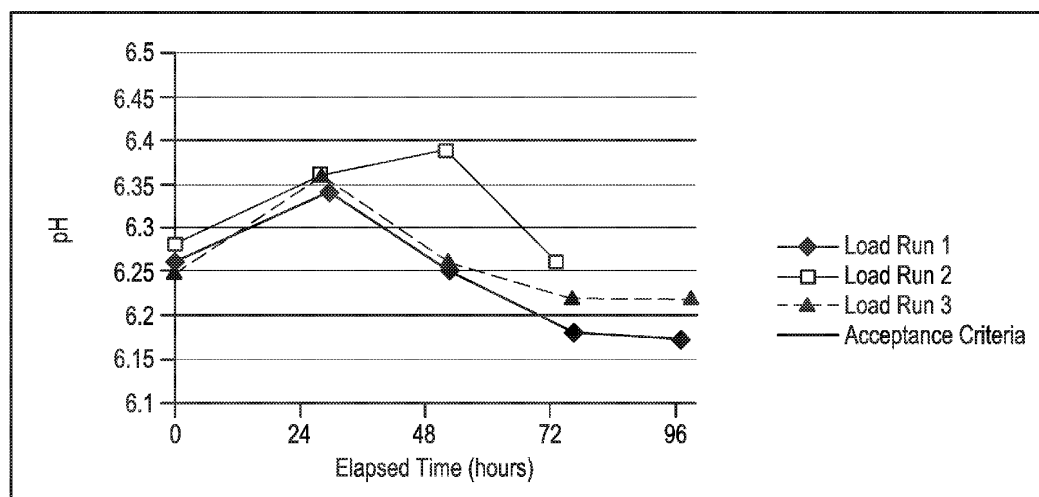
Yael; 2742 Delpha Court, Thousand Oaks, California 91362 (US). **ABEL, Jeffrey**; 402 Willow Glen Circle, Simi Valley, 93065 (US). **KAUSHIK, Rahul**; 1660 Glider Court, Thousand Oaks, California 91320 (US). **JACOB, Nitya Mariam**; One Amgen Center Drive, Thousand Oaks, California 91320-1799 (US). **TRAN, Carson**; 5307 Sepulveda Blvd, Unit# 119, Sherman Oaks, California 91411 (US). **BALL, Nicole**; 3260 Heatherglow Street, Thousand Oaks, California 91360 (US). **GOSS, Monica**; 3050 Lodgewood Street, Newbury Park, California 91320 (US).

(74) Agent: **AMGEN INC.**; One Amgen Center, Thousand Oaks, California 91320 (US).

(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, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(54) Title: METHODS FOR MAKING STABLE PROTEIN COMPOSITIONS

Figure 1



(57) Abstract: The invention relates to methods for preparing stable buffered and buffer-free protein compositions. The invention also relates to methods of purifying proteins from one or more impurities.

[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).

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:

- *with international search report (Art. 21(3))*

(48) Date of publication of this corrected version:

21 November 2019 (21.11.2019)

(15) Information about Correction:

see Notice of 21 November 2019 (21.11.2019)