



(51) International Patent Classification:

A61K 39/00 (2006.01) C12N 5/078 (2010.01)
A61K 35/14 (2015.01) A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2021/031542

(22) International Filing Date:

10 May 2021 (10.05.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/023,193 11 May 2020 (11.05.2020) US
63/105,135 23 October 2020 (23.10.2020) US

(71) Applicant: **F. HOFFMANN-LA ROCHE AG** [CH/CH];
Grenzacherstrasse 124, 4070 Basel (CH).(72) Inventors: **UMANA, Pablo**; c/o F. Hoffmann-La Roche AG, Grenzacherstrasse 124, 4070 Basel (CH). **KLEIN, Christian**; c/o F. Hoffmann-La Roche AG, Grenzacherstrasse 124, 4070 Basel (CH). **TRUMPFHELLER, Christine**; c/o F. Hoffmann-La Roche AG, Grenzacherstrasse

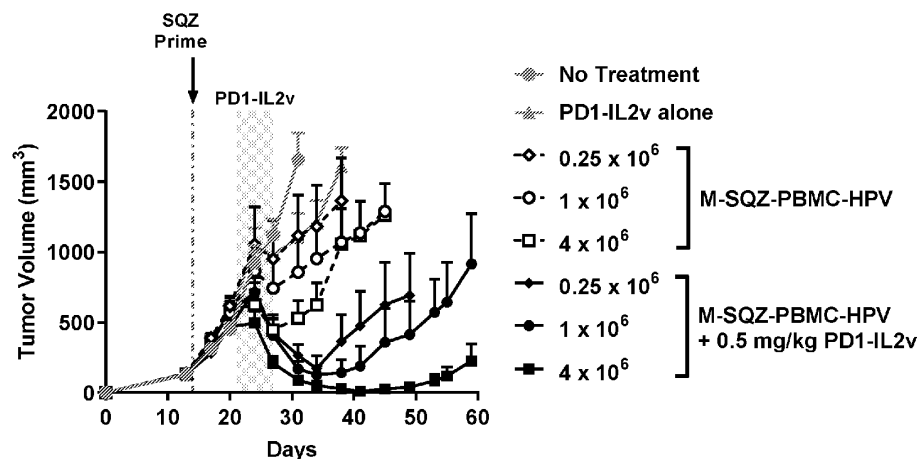
124, 4070 Basel (CH). **NICOLINI, Valeria G.**; c/o F. Hoffmann-La Roche AG, Grenzacherstrasse 124, 4070 Basel (CH). **CODARRI DEAK, Laura**; c/o F. Hoffmann-La Roche AG, Grenzacherstrasse 124, 4070 Basel (CH). **LOUGHHEAD, Scott**; c/o SQZ Biotechnologies Company, 200 Arsenal Yards Boulevard, Watertown, Massachusetts 02472 (US). **BOOTY, Matthew**; c/o SQZ Biotechnologies Company, 200 Arsenal Yards Boulevard, Watertown, Massachusetts 02472 (US).

(74) Agent: **DONAHUE, Brian** et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, California 94304-1018 (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, 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,

(54) Title: COMBINATION THERAPY WITH MODIFIED PBMCs AND AN IMMUNOCONJUGATE

FIG. 1



(57) **Abstract:** The present application provides methods for stimulating an immune response in an individual comprising administering a composition of nucleated cells (e.g., PBMCs) comprising an intracellular exogenous antigen in conjunction with administering an immunoconjugate comprising a variant IL-2 polypeptide and a second polypeptide. The variant IL-2 polypeptide exhibits reduced affinity to the α -subunit of the IL-2 receptor. The second polypeptide targets a tumor cell or a T cell.

[Continued on next page]

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).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*