

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 June 2022 (23.06.2022)



(10) International Publication Number
WO 2022/132596 A3

(51) International Patent Classification:

A61K 39/395 (2006.01) C07K 14/47 (2006.01)
A61K 38/03 (2006.01) A61K 38/02 (2006.01)

(21) International Application Number:

PCT/US2021/062941

(22) International Filing Date:

10 December 2021 (10.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/125,269 14 December 2020 (14.12.2020) US

(71) Applicant: **BIONTECH US INC.** [US/US]; 40 Erie Street,
Suite 110, Cambridge, Massachusetts 02139 (US).

(72) Inventors: **ROONEY, Michael Steven**; 40 Erie Street,
Suite 110, Cambridge, Massachusetts 02139 (US).
STOPFER, Lauren Elizabeth; 40 Erie Street, Suite 110,
Cambridge, Massachusetts 02139 (US).

(74) Agent: **GHOSH, Sanjukta**; 650 Page Mill Road, Palo Alto,
California 94304 (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, 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).

(54) Title: TISSUE-SPECIFIC ANTIGENS FOR CANCER IMMUNOTHERAPY

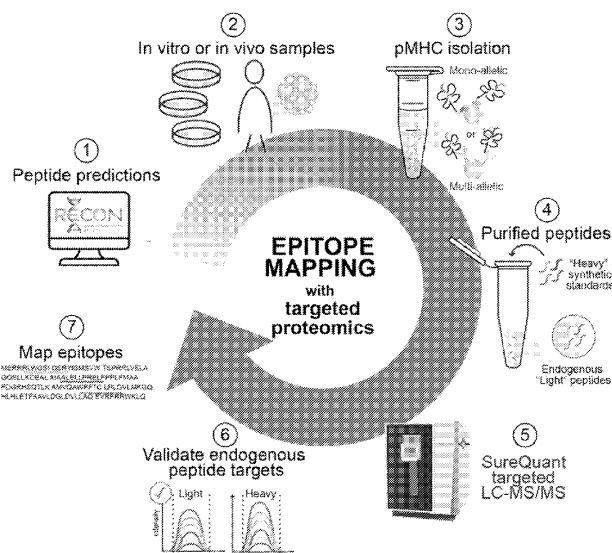


FIG. 73

(57) Abstract: Provided herein are compositions relating to tissue-specific antigens, and methods for identifying tissue-specific antigens. Also provided herein are pharmaceutical compositions and methods of treatment that relate to tissue-specific antigens.

[Continued on next page]

WO 2022/132596 A3

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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

(88) Date of publication of the international search report:

22 September 2022 (22.09.2022)