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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 September 2018 (27.09.2018)

WIPO | PCT

(10) International Publication Number
WO 2018/175585 A2

(51) International Patent Classification:
A61K 39/00 (2006.01) *C07K 14/16* (2006.01)

(21) International Application Number:
PCT/US2018/023569

(22) International Filing Date:
21 March 2018 (21.03.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/476,575 24 March 2017 (24.03.2017) US

(71) Applicant: **THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY** [US/US]; Office of the General Counsel, Building 170, 3rd Floor, Main Quad P.O. Box 20386, Stanford, California 94305-2038 (US).

(72) Inventors: **GEE, Marvin**; 2100 Geng Road, Suite 200, Palo Alto, California 94303 (US). **DAVIS, Mark M.**; 52 Euclid Avenue, Atherton, California 94027 (US). **HAN, Arnold**; 81 Walworth Avenue, Scarsdale, New York 10583 (US). **GARCIA, Kenan Christopher**; 580 Kenwood Drive, Menlo Park, California 94025 (US).

(74) Agent: **SHERWOOD, Pamela J.**; Bozicevic, Field & Francis LLP, 201 Redwood Shores Parkway, Suite 200, Redwood City, California 94065 (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.

(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:
— *of inventorship (Rule 4.17(iv))*

Published:
— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*
— *with sequence listing part of description (Rule 5.2(a))*

WO 2018/175585 A2

(54) Title: ANTIGEN DISCOVERY FOR T CELL RECEPTORS ISOLATED FROM PATIENT TUMORS RECOGNIZING WILD-TYPE ANTIGENS AND POTENT PEPTIDE MIMOTOPES

(57) Abstract: Compositions and methods are provided for peptide sequences that are ligands for a T cell receptor (TCR) of interest, in a given MHC context.