

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 March 2023 (16.03.2023)



(10) International Publication Number
WO 2023/037164 A2

(51) International Patent Classification:

G16B 40/20 (2019.01) G16B 30/00 (2019.01)
G16B 25/10 (2019.01) G16H 50/20 (2018.01)

(21) International Application Number:

PCT/IB2022/000512

(22) International Filing Date:

07 September 2022 (07.09.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10202109992T 10 September 2021 (10.09.2021) SG
10202204588Y 28 April 2022 (28.04.2022) SG
10202250170C 15 June 2022 (15.06.2022) SG

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(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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, 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,
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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,

(54) Title: SYSTEMS AND METHODS FOR THE IDENTIFICATION OF TARGET-SPECIFIC T CELLS AND THEIR RECEPTOR SEQUENCES USING MACHINE LEARNING

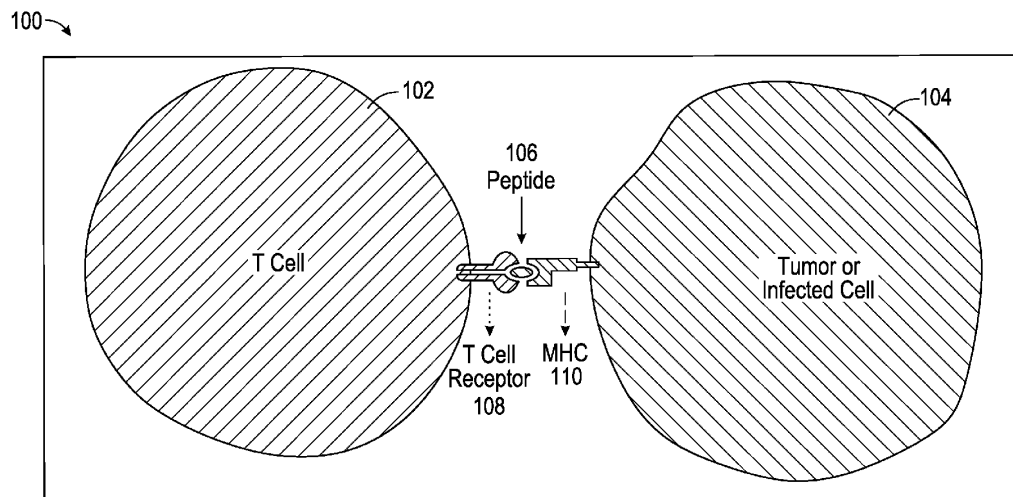


Figure 1

(57) Abstract: The present application describes a computer-implemented method for identifying target-specific T cells and their T cell Receptor (TCR) sequences. The method includes deriving single cell T cell data from a sample. The data comprises T cell profile and T cell TCR sequence. The method also includes selecting candidate T cells and their TCR sequences from the single cell T cell data using a machine learning classifier that is trained to classify T cells based on their profiles. The method may also include aggregating results over clonotypes, adding T cells with similar TCR sequences and ranking the list of candidates.

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TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

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