



(51) International Patent Classification:

C12N 5/078 (2010.01) C07K 14/705 (2006.01)
A61K 35/19 (2015.01) C07K 16/28 (2006.01)

(21) International Application Number:

PCT/GB2022/051512

(22) International Filing Date:

15 June 2022 (15.06.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2108585.7 16 June 2021 (16.06.2021) GB

(71) Applicant: **XAP THERAPEUTICS LIMITED** [GB/GB];
Babraham Research Campus, Maia Building (B270), Cam-
bridge Cambridgeshire CB22 3AT (GB).

(72) Inventors: **PATTERSON, James**; Babraham Research
Campus, Maia Building (B270), Cambridge Cam-
bridgeshire CB22 3AT (GB). **JESPERS, Laurent**; Babra-
ham Research Campus, Maia Building (B270), Cambridge
Cambridgeshire CB22 3AT (GB).

(74) Agent: **HOLLAND, Sara Louise**; Potter Clarkson, The
Belgrave Centre, Talbot Street, Nottingham Notting-
hamshire NG1 5GG (GB).

(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, 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, 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: METHODS AND COMPOSITIONS

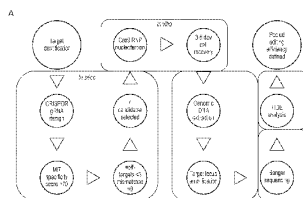


FIG. 1

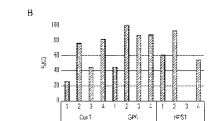


FIG. 1 (Continued)

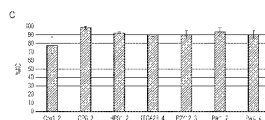


FIG. 1 (Continued)

(57) Abstract: The present invention provides engineered platelets with chimeric platelet receptors (CPR) with a desired target specificity. Additionally, the engineered platelets may comprise cargo which may be released upon activation of the platelet. Additionally, the platelets may be generated in vitro from megakaryocytes engineered to generate non-thrombogenic platelets.

Published:

- *with international search report (Art. 21(3))*
- *with sequence listing part of description (Rule 5.2(a))*