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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
26 March 2020 (26.03.2020)

WIPO | PCT

(10) International Publication Number
WO 2020/058297 A1

(51) International Patent Classification:
A61P 37/06 (2006.01) *A61K 45/06* (2006.01)
A61K 31/4025 (2006.01)

(21) International Application Number:
PCT/EP2019/074918

(22) International Filing Date:
18 September 2019 (18.09.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
18195251.6 18 September 2018 (18.09.2018) EP

(71) Applicant *(for all designated States except US)*: **F. HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacherstrasse 124, 4070 Basel (CH).

(71) Applicant *(for US only)*: **HOFFMANN-LA ROCHE INC.** [US/US]; Overlook at Great Notch, 150 Clove Road 8th Floor, Suite 8 - Legal Department, Little Falls, New Jersey 07424 (US).

(72) Inventors: **KLEIN, Christian**; c/o Roche Glycart AG Wagistrasse 10, 8952 Schlieren (CH). **KOLB, Fabrice Alain André**; c/o F. Hoffmann-La Roche AG Grenzacherstrasse 124, 4070 Basel (CH). **MANCHESTER YOUNG, Marianne**; c/o F. Hoffmann-La Roche AG Grenzacherstrasse 124, 4070 BASEL (CH). **AHMED, Syed Sohail**; c/o F. Hoffmann-La Roche AG Grenzacherstrasse 124, 4070 BASEL (CH). **MATTOS DE ALMEIDA BESSA, Juliana**; c/o F. Hoffmann-La Roche AG Grenzacherstrasse 124, 4070 Basel (CH).

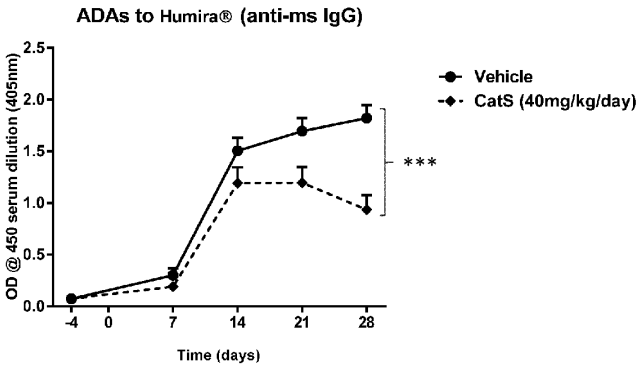
(74) Agent: **POMERANC, Didier**; Grenzacherstrasse 124, 4070 Basel (CH).

(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).

(54) Title: USE OF A CATHEPSIN S INHIBITOR AGAINST THE FORMATION OF ANTI-DRUG ANTIBODIES

Figure 1



(57) Abstract: The present invention relates in particular to a cathepsin S inhibitor for use in a method for reducing or preventing the formation of anti-drug antibodies (ADA) against a therapeutic agent in a subject who is receiving a treatment with said therapeutic agent.

[Continued on next page]

WO 2020/058297 A1

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

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