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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
09 September 2022 (09.09.2022)

WIPO | PCT

(10) International Publication Number
WO 2022/184978 A1

(51) International Patent Classification:
C07D 405/14 (2006.01)

(21) International Application Number:
PCT/FI2022/050130

(22) International Filing Date:
28 February 2022 (28.02.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20215217 01 March 2021 (01.03.2021) FI

(71) Applicant: **ORION CORPORATION** [FI/FI]; Orionintie 1, FI-02200 Espoo (FI).

(72) Inventors: **KARJALAINEN, Oskari**; c/o FERMION OY, Koivu-Mankkaan tie 6, FI-02200 Espoo (FI). **MÄKELÄ, Mikko**; c/o ORION CORPORATION, P.O.Box 65, FI-02101 Espoo (FI). **POP, Mihaela**; Le Tourmalet 14, 1060NX AMSTERDAM (NL). **RUMMAKKO, Petteri**; c/o ORION CORPORATION, P.O.Box 65, FI-02101 Espoo (FI). **SHEVCHENKO, Anna**; Agern Allé 3, 2970 HORSHOLM (DK). **SINERVO, Kai**; c/o ORION CORPORATION, P.O.Box 65, FI-02101 Espoo (FI). **TIAINEN, Eija**; Ruutikatu 3 A 17, FI-02650 ESPOO (FI).

(74) Agent: **ORION CORPORATION**; Intellectual Property Rights, P.O.Box 65, FI-02101 Espoo (FI).

(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, 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).

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

Published:
— *with international search report (Art. 21(3))*
— *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

WO 2022/184978 A1

(54) Title: NOVEL SALT FORMS OF A 4H-PYRAN-4-ONE STRUCTURED CYP11A1 INHIBITOR

(57) Abstract: The present invention relates to novel salts, particularly crystalline salts, of 2-(isoindolin-2-ylmethyl)-5-((1-(methyl sulfonyl)piperidin-4-yl)methoxy)-4H-pyran-4-one (I) which are particularly suitable for use in the manufacture of pharmaceutical 5 compositions. Furthermore, the invention relates to pharmaceutical compositions comprising such novel salts. Compound (I) is a selective inhibitor of CYP11A1 enzyme and is useful in the treatment of hormonally regulated cancers, such as prostate cancer and breast cancer.