

(43) International Publication Date
09 December 2021 (09.12.2021)



(10) International Publication Number
WO 2021/247604 A1

(51) International Patent Classification:

<i>A61P 35/00</i> (2006.01)	<i>A61K 38/17</i> (2006.01)
<i>A61P 39/00</i> (2006.01)	<i>A61K 38/20</i> (2006.01)
<i>C07K 14/00</i> (2006.01)	<i>A61K 38/36</i> (2006.01)

(21) International Application Number:

PCT/US2021/035285

(22) International Filing Date:

01 June 2021 (01.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/032,933	01 June 2020 (01.06.2020)	US
PCT/US2020/035598		
	01 June 2020 (01.06.2020)	US
63/118,536	25 November 2020 (25.11.2020)	US

(72) **Inventors:** **WONG, Hing C.**; 2929 North Commerce Parkway, Miramar, Florida 33025 (US). **ZHU, Xiaoyun**; 2929 North Commerce Parkway, Miramar, Florida 33025 (US). **LIU, Bai**; 2929 North Commerce Parkway, Miramar, Florida 33025 (US). **CHATURVEDI, Pallavi**; 2929 North Commerce Parkway, Miramar, Florida 33025 (US). **GEORGE, Varghese**; 2929 North Commerce Parkway, Miramar, Florida 33025 (US).

(74) **Agent: YOON, Sohee Kim et al.**; Fish & Richardson P.C.,
P.O. Box 1022, Minneapolis, Minnesota 55440-1022 (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, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,

(71) Applicant: HCW BIOLOGICS, INC. [US/US]; 2929 North Commerce Parkway, Miramar, Florida 33025 (US).

(54) Title: METHODS OF TREATING AGING-RELATED DISORDERS

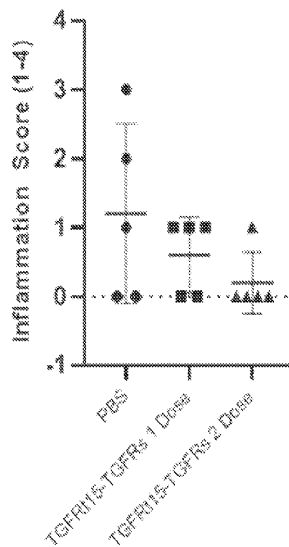


FIG. 263

(57) **Abstract:** Provided herein are methods of killing or reducing the number of naturally-occurring and/or treatment-induced senescent cells and diseased cells in a subject in need thereof, decreasing the accumulation of naturally-occurring and/or treatment-induced senescent cells and diseased cells in a subject in need thereof, that include administering to the subject a therapeutically effective amount of one or more common gamma-chain family cytokine receptor activating agent(s) and/or one or more agent(s) that result(s) in a decrease in the activation of a TGF- β receptor.

[Continued on next page]

WO 2021/247604 A1

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:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*