

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
11 August 2022 (11.08.2022)



(10) International Publication Number
WO 2022/170090 A1

(51) International Patent Classification:

A61K 39/395 (2006.01) C07K 16/40 (2006.01)
A61P 31/14 (2006.01) G01N 33/53 (2006.01)
A61P 11/00 (2006.01) G01N 33/564 (2006.01)

(21) International Application Number:

PCT/US2022/015303

(22) International Filing Date:

04 February 2022 (04.02.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/146,479 05 February 2021 (05.02.2021) US
63/277,361 09 November 2021 (09.11.2021) US

(71) Applicant: **OMEROS CORPORATION** [US/US]; 201
Elliott Avenue West, Seattle, WA 98119 (US).

(72) Inventors: **DEMOPULOS, Gregory, A.**; 201 Elliott Avenue West, Seattle, WA 98119 (US). **DUDLER, Thomas**; 201 Elliott Avenue West, Seattle, WA 98119 (US). **LYNCH, Nicholas, James**; Department of Veterinary Medicine, Madingley Road, Cambridge CB3 0ES (GB). **SCHWAEBLE, Hans-wilhelm**; Department of Veterinary Medicine, Madingley Road, Cambridge CB3 0ES (GB). **SHAFFER, Kathleen**; 201 Elliott Avenue West, Seattle, WA 98119 (US). **YABUKI, Munchisa**; 201 Elliott Avenue West, Seattle, WA 98119 (US).

(74) Agent: **QUINTON, Tineka, J.**; Omeros Corporation, 201 Elliott Avenue West, Seattle, WA 98119 (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,

(54) Title: BIOMARKER FOR ASSESSING THE RISK OF DEVELOPING ACUTE COVID-19 AND POST-ACUTE COVID-19

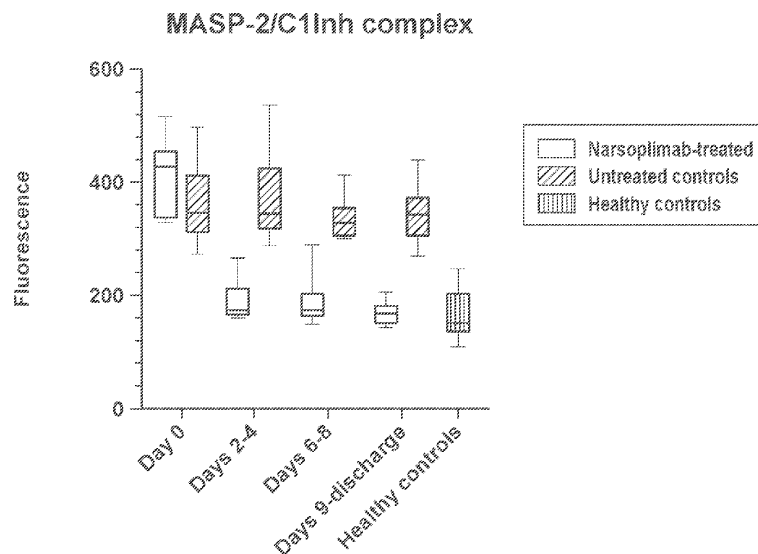


FIG. 71

(57) Abstract: Disclosed herein are compositions, kits and methods for determining the concentration of fluid-phase MASP-2/C1-INH complex in a biological fluid, such as a biological fluid obtained from a subject infected with SARS-CoV-2. Also disclosed are methods of using said compositions, methods and kits for detection of MASP-2/C1-INH complex to determine the status of lectin pathway activation in a mammalian subject and thereby assess the risk of a subject that is or has been infected with SARS-CoV-2 for developing COVID-19-related ARDS or other poor outcome, or determine the need for treatment or efficacy of treatment of a subject in need thereof with a complement inhibitor such as a MASP-2 inhibitory agent.

[Continued on next page]

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:

- *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))*