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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 January 2022 (27.01.2022)

WIPO | PCT

(10) International Publication Number
WO 2022/020242 A1

(51) International Patent Classification:
A61K 31/4155 (2006.01) *C07D 207/27* (2006.01)
A61P 31/00 (2006.01)

(21) International Application Number:
PCT/US2021/042193

(22) International Filing Date:
19 July 2021 (19.07.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/054,048 20 July 2020 (20.07.2020) US

(71) Applicant: **ENANTA PHARMACEUTICALS, INC.** [US/US]; 500 Arsenal Street, Watertown, MA 02472 (US).

(72) Inventors: **PANARESE, Joseph D.**; 441 Lowell Avenue, Newton, MA 02460 (US). **DAVIS, Dexter**; 28 Hersom St., Watertown, MA 02472 (US). **KENTON, Nathaniel Thomas**; 764 Mount Auburn Street, Watertown, MA 02472 (US). **BARTLETT, Samuel**; 410 Market Street, Apartment 4, Brighton, MA 02135 (US). **RAFFERTY, Sean**; 140 Arsenal St., Unit 2328, Watertown, MA 02472 (US). **OR, Yat Sun**; 29 Michaelchris Drive, Waltham, MA 02452 (US).

(74) Agent: **HARLAN, Edgar W.** et al.; Elmore Patent Law Group, P.C., 484 Groton Road, Westford, MA 01886 (US).

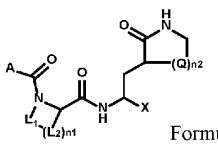
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, 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).

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))*

WO 2022/020242 A1

(54) Title: FUNCTIONALIZED PEPTIDES AS ANTIVIRAL AGENTS



Formula (I)

(57) Abstract: The present invention discloses compounds of Formula (I), and pharmaceutically acceptable salts, thereof: which inhibit coronavirus replication activity. The invention further relates to pharmaceutical compositions comprising a compound of Formula (I) or a pharmaceutically acceptable salt thereof, and methods of treating or preventing a coronavirus infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of a compound of Formula (I) or a pharmaceutically acceptable salt thereof.