

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 June 2020 (18.06.2020)



(10) International Publication Number
WO 2020/123407 A1

(51) International Patent Classification:

A61K 9/14 (2006.01) *A61K 47/24* (2006.01)
A61K 9/19 (2006.01) *A61K 47/28* (2006.01)
A61K 9/127 (2006.01) *A61K 47/44* (2017.01)
A61K 31/05 (2006.01) *C07C 39/23* (2006.01)
A61K 31/352 (2006.01)

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.

(21) International Application Number:

PCT/US2019/065288

(22) International Filing Date:

09 December 2019 (09.12.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/778,132	11 December 2018 (11.12.2018)	US
62/846,474	10 May 2019 (10.05.2019)	US
62/857,567	05 June 2019 (05.06.2019)	US
62/889,824	21 August 2019 (21.08.2019)	US
62/916,754	17 October 2019 (17.10.2019)	US

(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))

(71) Applicant: **DISRUPTION LABS INC.** [US/US]; 8201 East Riverside Drive, Suite 650, Austin, Texas 78744 (US).

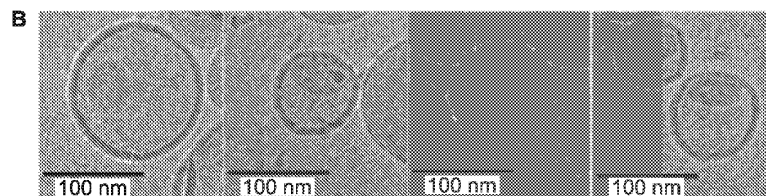
(72) Inventors: **SLOAT, Brian R.**; 8201 East Riverside Drive, Suite 650, Austin, Texas 78744 (US). **SANDOVAL, Michael A.**; 8201 East Riverside Drive, Suite 650, Austin, Texas 78744 (US). **WEST, Tyler B.**; 8201 East Riverside Drive, Suite 650, Austin, Texas 78744 (US).

(74) Agent: **CHRISTENSEN, Michael, R.**; KNOBBE, MARTENS, OLSON & BEAR, LLP, 2040 Main Street, 14th Floor, Irvine, California 92614 (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,

(54) Title: COMPOSITIONS FOR THE DELIVERY OF THERAPEUTIC AGENTS AND METHODS OF USE AND MAKING THEREOF

FIG. 5



(57) Abstract: Some embodiments pertain to nanoparticle-based compositions and their use in methods for the delivery of CBD to subjects. In some embodiments, the compositions are stable for prolonged periods of time and provide enhanced bioavailability.

WO 2020/123407 A1