

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
21 October 2021 (21.10.2021)



(10) International Publication Number
WO 2021/211518 A1

(51) International Patent Classification:

A61M 5/34 (2006.01) A61M 5/32 (2006.01)
A61M 5/315 (2006.01)

(21) International Application Number:

PCT/US2021/026988

(22) International Filing Date:

13 April 2021 (13.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/009,572 14 April 2020 (14.04.2020) US

(71) Applicant: **BLUEROCK THERAPEUTICS LP**
[US/US]; 1 Broadway, Floor 15, Cambridge, Massachusetts
02142 (US).

(72) Inventors: **MAHER, Matthew Gardner**; c/o Bluerock
Therapeutics LP, 1 Broadway, Floor 15, Cambridge, Mass-
achusetts 02142 (US). **GUERRERO PALACIO, Angel**
Leonardo; c/o Bluerock Therapeutics LP, 1 Broadway,
Floor 15, Cambridge, Massachusetts 02142 (US). **MARC-**
HAND, Philippe; c/o Bluerock Therapeutics LP, 1 Broad-
way, Floor 15, Cambridge, Massachusetts 02142 (US).

(74) Agent: **GROLZ, Edward W.** et al.; Scully, Scott, Murphy
& Presser, 400 Garden City Plaza, Suite 300, Garden City,
New York 11530 (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).

(54) Title: DELIVERY DEVICES FOR THERAPEUTIC SUBSTANCES

(57) Abstract: In some embodiments, a delivery device includes
a device actuator and a cannula portion through which a thera-
peutic substance is ejected. The cannula portion includes an out-
er shaft, a needle that is configured to move through the outer
shaft, and a plunger that is configured to move through the nee-
dle, forming a positive displacement arrangement.

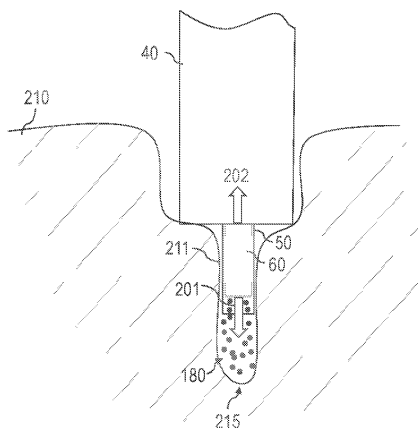


FIG. 2

WO 2021/211518 A1

[Continued on next page]

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))*