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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
04 November 2021 (04.11.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/222287 A2

(51) International Patent Classification:
C12N 5/10 (2006.01)

(21) International Application Number:
PCT/US2021/029446

(22) International Filing Date:
27 April 2021 (27.04.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/016,913	28 April 2020 (28.04.2020)	US
63/121,781	04 December 2020 (04.12.2020)	US
63/124,058	11 December 2020 (11.12.2020)	US
63/130,100	23 December 2020 (23.12.2020)	US
63/165,619	24 March 2021 (24.03.2021)	US
63/176,221	17 April 2021 (17.04.2021)	US

(71) Applicant: **INTELLIA THERAPEUTICS, INC.** [US/US]; 40 Erie Street, Cambridge, Massachusetts 02139 (US).

(72) Inventors: **NARENDRA, Pooja Kyatsandra**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **BURNS, Sean Michael**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **GUTIERREZ MARTINEZ, Paula**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **KANJOLIA, Arti Mahendra Prakash**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **MONTI, Anthony**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **PRODEUS, Aaron**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **ARREDOUANI, Mohamed Simo**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **KILIÇ, Özgün**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **LARIVIERE, Reed Walker**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **SHARMA, Palak Sushil**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **STAMPOULOGLOU, Eleni**; 40 Erie Street, Cambridge, Massachusetts 02139 (US). **ZHANG, Qingzhan**; 40 Erie Street, Cambridge, Massachusetts 02139 (US).

(74) Agent: **BAUR, Amelia Feulner** et al.; McNeill Baur PLLC, 125 Cambridge Park Drive, Suite 301, Cambridge, Massachusetts 02140 (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 declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority*
— *with sequence listing part of description (Rule 5.2(a))*

WO 2021/222287 A2

(54) Title: METHODS OF IN VITRO CELL DELIVERY

(57) Abstract: