

(19) World Intellectual Property
Organization
International Bureau



WIPO | PCT



(10) International Publication Number

WO 2019/157099 A8

(43) International Publication Date
15 August 2019 (15.08.2019)

(51) International Patent Classification:

A61K 31/137 (2006.01) A61K 47/10 (2017.01)
A61K 47/02 (2006.01)

(21) International Application Number:

PCT/US2019/016918

(22) International Filing Date:

06 February 2019 (06.02.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

15/890,131	06 February 2018 (06.02.2018)	US
62/685,049	14 June 2018 (14.06.2018)	US
62/734,550	21 September 2018 (21.09.2018)	US
62/784,057	21 December 2018 (21.12.2018)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US	15/890,131 (CIP)
Filed on	06 February 2018 (06.02.2018)

(71) Applicants: **AEGIS THERAPEUTICS, LLC** [US/US]; 11770 Bernardo Plaza Court, Suite 353, San Diego, California 92128 (US). **ARS PHARMACEUTICALS INC.** [US/US]; 8195 Run of the Knolls Ct., San Diego, California 92127 (US).

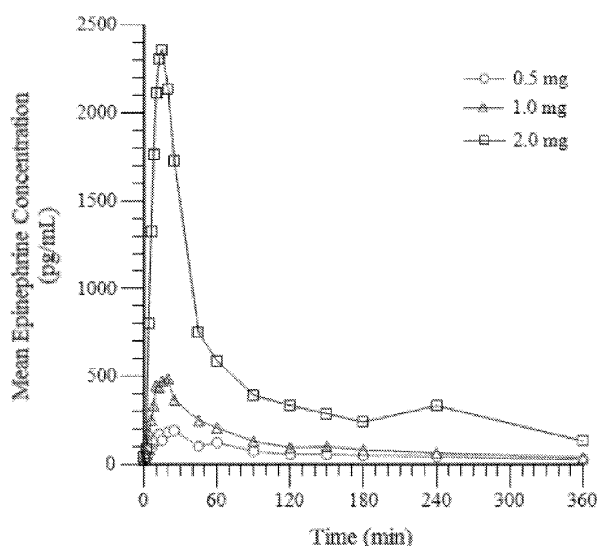
(72) Inventors: **LOWENTHAL, Richard**; 8195 Run of the Knolls Ct., San Diego, California 92127 (US). **MAGGIO, Edward T.**; 11770 Bernardo Plaza Court, Suite 353, San Diego, California 92128 (US). **BELL, Robert G.**; 8195 Run of the Knolls Ct., San Diego, California 92127 (US). **SHAH, Pratik**; 8195 Run of the Knolls Ct., San Diego, California 92127 (US).

(74) Agent: **ZUNIC, Valentin B.**; WILSON SONSINI GOODRICH & ROSATI, 650 Page Mill Road, Palo Alto, California 94304 (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, JO, JP, KE, KG, KH, KN, KP,

(54) Title: INTRANASAL EPINEPHRINE FORMULATIONS AND METHODS FOR THE TREATMENT OF DISEASE

Figure 4. Mean Plasma Epinephrine Concentrations with Intranasal Epinephrine Described in Example 2B.



(57) Abstract: Drug products adapted for nasal delivery comprising formulations with epinephrine and devices comprising such formulations are provided. Methods of treating anaphylaxis with epinephrine products are also provided.

[Continued on next page]

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.

- (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))*

(48) Date of publication of this corrected version:

24 October 2019 (24.10.2019)

(15) Information about Correction:

see Notice of 24 October 2019 (24.10.2019)