

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 January 2023 (05.01.2023)



(10) International Publication Number
WO 2023/278392 A1

(51) International Patent Classification:

A61K 31/33 (2006.01) A61K 47/00 (2006.01)
A61K 47/06 (2006.01) A61K 31/00 (2006.01)

(21) International Application Number:

PCT/US2022/035241

(22) International Filing Date:

28 June 2022 (28.06.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/217,839 02 July 2021 (02.07.2021) US

(71) Applicant: **FORESEE PHARMACEUTICALS CO., LTD.** [CN/CN]; 9F-2., No.19-3, Sanchong Road, Nangang Dist., Taipei, 115 (TW).

(72) Inventors: **LI, Yuhua**; 124 Miners Ln, Newark, Delaware 19713 (US). **GUARINO, Andrew J.**; 14 N Valley Stream Cir., Newark, Delaware 19702 (US).

(74) Agent: **HONG, Enshan**; 1180 Avenue of the Americas, New York, New York 10036 (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, IQ, IR, IS, IT, JM, 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))

(54) Title: METHODS OF MANUFACTURING INJECTABLE SUSTAINED RELEASE FORMULATIONS

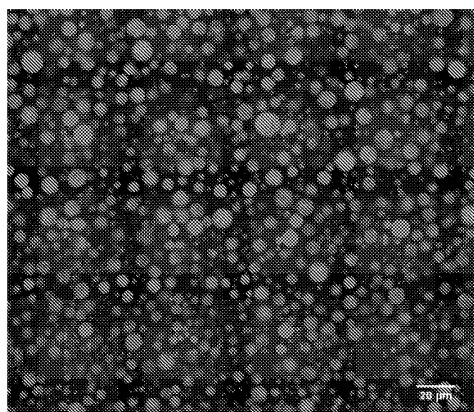


Fig. 1

(57) Abstract: The present application provides a method for the manufacture of a viscous liquid suspension or emulsion for controlled release drug delivery, where the composition comprises: a lactate-based polymer having a weight average molecular weight between 5,000 and 50,000 dalton; a biocompatible solvent; and a bioactive substance or a salt thereof. The method involves weighing, mixing, dissolving the raw materials, filtering the product, and degassing the product to produce a uniform formulation that can be accurately filled in a single ready to use syringe.



WO 2023/278392 A1