

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
27 January 2022 (27.01.2022)



(10) International Publication Number
WO 2022/018441 A1

(51) International Patent Classification:

A61K 9/127 (2006.01) *A61K 39/12* (2006.01)
A61K 9/51 (2006.01) *A61P 25/04* (2006.01)
A61K 31/485 (2006.01) *A61P 29/00* (2006.01)
A61K 31/704 (2006.01) *A61P 35/00* (2006.01)
A61K 31/7048 (2006.01)

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).

(21) International Application Number:

PCT/GB2021/051887

Published:

— with international search report (Art. 21(3))

(22) International Filing Date:

21 July 2021 (21.07.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2011367.6 22 July 2020 (22.07.2020) GB

(71) Applicant: **MICROPORE TECHNOLOGIES LIMITED** [GB/GB]; 1 Massey Road, Thornaby, Stockton-On-Tees Cleveland TS17 6DY (GB).

(72) Inventors: **KERR, Alex**; Micropore Technologies Limited, 1 Massey Road, Thornaby, Stockton-On-Tees Cleveland TS17 6DY (GB). **TROTTER, Sam**; Micropore Technologies Limited, 1 Massey Road, Thornaby, Stockton-On-Tees Cleveland TS17 6DY (GB). **HAYWARD, David**; Micropore Technologies Limited, 1 Massey Road, Thornaby, Stockton-On-Tees Cleveland TS17 6DY (GB).

(74) Agent: **GILHOLM, Stephen Philip**; IPheions Intellectual Property, The Smithy Office, The Hawk Creative Business Park, Easingwold, YORK North Yorkshire YO61 3FE (GB).

(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,

(54) Title: METHOD OF PREPARING LIPID VESICLES

(57) Abstract: There is described a method of preparing lipid vesicles, said method comprising dispersing a first liquid phase in a second liquid phase; wherein said first liquid phase comprises a lipid phase and said second liquid phase comprises an aqueous phase; or said first liquid phase comprises an aqueous phase and said second liquid phase comprises a lipid phase; said method comprising controlling provision of the first liquid phase in a first flow direction to a membrane, said membrane defining a plurality of pores; and controlling provision of the second liquid phase to the membrane in a crossflow to the first flow direction, via the plurality of pores, to form a lipid vesicle suspension.

WO 2022/018441 A1