



(51) International Patent Classification:
A61K 49/22 (2006.01)

(21) International Application Number:
PCT/EP2020/063560

(22) International Filing Date:
14 May 2020 (14.05.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
16/413,526 15 May 2019 (15.05.2019) US
16/688,540 19 November 2019 (19.11.2019) US
16/788,083 11 February 2020 (11.02.2020) US

(71) Applicant: **BRACCO SUISSE SA** [CH/CH]; Via Ponteggia 23, 6814 Cadempino (CH).

(72) Inventors: **BUSSAT, Philippe**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH). **CHERKAoui, Samir**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH). **LAZARUS, David**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH). **ALLEMANN, Eric**; Route de la Galaise 31, 1228 Plan-les-

Ouates (CH). **SCHNEIDER, Michel**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH). **GUILLOT, Christian**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH).

(74) Agent: **RAVIZZA, Claudio**; Route de la Galaise 31, 1228 Plan-les-Ouates (CH).

(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, 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,

(54) Title: GAS-FILLED MICROVESICLES

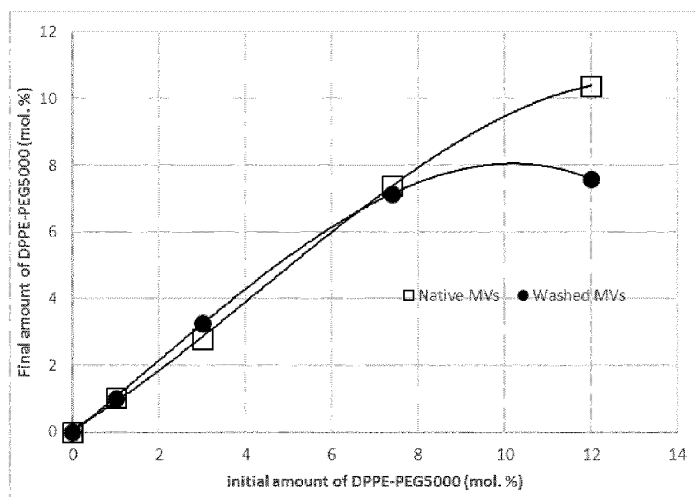


Figure 1

(57) Abstract: Lipid formulation particularly for preparing stable gas-filled microvesicles, comprising distearoyl-phosphatidylcholine (DSPC), dipalmitoylphosphatidylethanolamine-PEG5000 (DPPE-PEG5000) and palmitic acid in an advantageous relative molar ratio. The formulation is useful in particular for therapeutic application with ultrasounds.

[Continued on next page]

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))*
- *of inventorship (Rule 4.17(iv))*

Published:

- *with international search report (Art. 21(3))*