

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
22 July 2021 (22.07.2021)



(10) International Publication Number
WO 2021/144639 A1

(51) International Patent Classification:

A61K 31/198 (2006.01) *A61P 9/00* (2006.01)
A61K 31/194 (2006.01) *A61P 39/00* (2006.01)
A61K 31/704 (2006.01) *A61P 43/00* (2006.01)

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(21) International Application Number:

PCT/IB2020/062291

(22) International Filing Date:

21 December 2020 (21.12.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

102020000000442 13 January 2020 (13.01.2020) IT

(71) Applicant (for IT only): **PROFESSIONAL DIETETICS S.P.A.** [IT/IT]; Via Ciro Menotti, 1/A, I-20129 Milano (IT).

(71) Applicant: **PROFESSIONAL DIETETICS INTERNATIONAL S.R.L.** [IT/IT]; Via Ciro Menotti, 1/A, I-20129 Milano (IT).

(72) Inventor: **GIORGETTI, Paolo Luca Maria**; Via Fabio Filzi, 41, I-20124 Milano (IT).

(74) Agent: **CESA ROBERTA**; Buzzi, Notaro & Antonielli d'Oulx S.p.A., Corso Vittorio Emanuele II, 6, I-10123 Torino (IT).

(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).

(54) Title: COMPOSITIONS COMPRISING AMINO ACIDS FOR USE IN THE PREVENTION AND TREATMENT OF CHEMOTHERAPY SIDE EFFECTS

(57) Abstract: Composition for use in the prevention and/or in the treatment of cardiotoxicity induced by at least one chemotherapeutic agent in a subject undergoing chemotherapy, the composition comprising an active agent, said active agent containing the amino acids leucine, isoleucine, valine, threonine, lysine and citric acid, succinic acid, malic acid. Said chemotherapeutic agent may be selected in the group consisting of anthracyclines, HER2/ErbB2 inhibitors, tyrosine-kinase inhibitors, vascular endothelial growth factor inhibitors, immune checkpoint inhibitors.

WO 2021/144639 A1