

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 October 2021 (28.10.2021)



(10) International Publication Number
WO 2021/216420 A1

(51) International Patent Classification:

A23K 10/28 (2016.01) A23J 1/20 (2006.01)
A23C 23/00 (2006.01) A23L 33/19 (2016.01)

(21) International Application Number:

PCT/US2021/027915

(22) International Filing Date:

19 April 2021 (19.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20382316.6 20 April 2020 (20.04.2020) EP

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(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).

Published:

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

(54) Title: METHODS OF DECREASING MUSCLE ATROPHY AND/OR PROMOTING MUSCLE REGENERATION

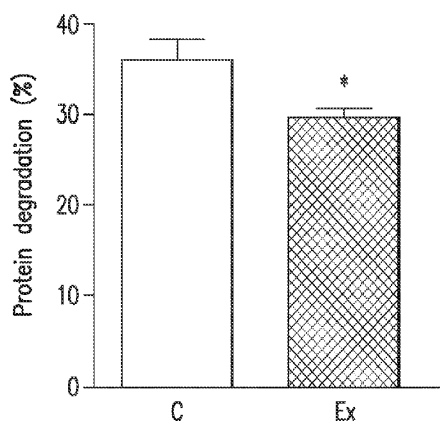


FIG.1

(57) Abstract: Methods of decreasing muscle atrophy and/or promoting muscle regeneration in a subject at risk of muscle atrophy comprise orally administering a nutritional composition comprising at least one of protein, fat and carbohydrate, and bovine milk-isolated exosomes comprising intact exosomes. In specific embodiments, the subject suffers from malnutrition, acquired immune deficiency syndrome (AIDS), cancer, diabetes, chronic obstructive pulmonary disease (COPD), amyotrophic lateral sclerosis (ALS), non-alcoholic fatty liver disease (NAFLD), or a burn injury, or has undergone clinical corticosteroid treatment.

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