



(51) International Patent Classification:

A61K 39/00 (2006.01) *C07K 16/28* (2006.01)
C07K 16/18 (2006.01)

(21) International Application Number:

PCT/IB2015/052990

(22) International Filing Date:

24 April 2015 (24.04.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/983,565 24 April 2014 (24.04.2014) US

(71) Applicant (for all designated States except US): **NO-VARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(72) Inventors; and

(71) Applicants (for US only): **TANKO, Laszlo** [HU/CH]; c/o Novartis Pharma AG, Postfach, CH-4002 Basel (CH). **PAPANICOLAOU, Dimitris** [US/US]; c/o Novartis Pharmaceuticals Corporation, One Health Plaza, East Hanover, New Jersey 07936-1080 (US). **GOLDHAHN, Jörg** [DE/CH]; c/o Novartis Pharma AG, Postfach, CH-4002 Basel (CH).

(74) Agent: **DIDELON, Frédéric**; c/o Novartis Pharma AG, Patent Department, CH-4002 Basel (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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).

Declarations under Rule 4.17:

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: METHODS OF IMPROVING OR ACCELERATING PHYSICAL RECOVERY AFTER SURGERY FOR HIP FRACTURE

(57) Abstract: The disclosure relates to uses and regimens for accelerating/improving physical recovery in a patient with disuse atrophy triggered by reduced mobility due to a hip fracture and consequent major surgery, which employ a therapeutically effective amount of a myostatin antagonist, e.g., a myostatin binding molecule, e.g., a myostatin antibody or an ActRII receptor binding molecule, an ActRII receptor antibody, such as the bimagrumab antibody.



WO 2015/162590 A1