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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 July 2014 (24.07.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/111467 A1

(51) International Patent Classification:
C07K 14/71 (2006.01)

(21) International Application Number:
PCT/EP2014/050800

(22) International Filing Date:
16 January 2014 (16.01.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/IB2013/001480
16 January 2013 (16.01.2013) IB

(71) Applicants: **INSERM (INSTITUT NATIONAL DE LA SANTÉ ET DE LA RECHERCHE MÉDICALE)** [FR/FR]; 101, rue de Tolbiac, F-75013 Paris (FR). **UNIVERSITE PAUL SABATIER TOULOUSE III** [FR/FR]; 118 Route de Narbonne, 31400 Toulouse (FR).

(72) Inventor: **GOUZE, Elvire**; Inserm U1065, C3m, 151 route Saint Antoine de Ginestière, BP 2 3194, F-06204 Nice Cedex 03 (FR).

(74) Agent: **HIRSCH, Denise**; Inserm Transfert, 7 rue Watt, F-75013 Paris (FR).

(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, LT, 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, 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))*

— *with sequence listing part of description (Rule 5.2(a))*

WO 2014/111467 A1

(54) Title: A SOLUBLE FIBROBLAST GROWTH FACTOR RECEPTOR 3 (FGR3) POLYPEPTIDE FOR USE IN THE PREVENTION OR TREATMENT OF SKELETAL GROWTH RETARDATION DISORDERS

(57) Abstract: The present invention relates to the prevention or treatment of skeletal growth retardation disorders, in particular skeletal diseases, developed by patients that display abnormal increased activation of the fibroblast growth factor receptor 3 (FGFR3), in particular by expression of a prolonged activated mutant of FGFR3. More particularly, the present invention relates to a soluble FGFR3 for use in the prevention or treatment of achondroplasia.