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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 December 2015 (17.12.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/191462 A1

(51) International Patent Classification:
C12N 5/077 (2010.01) *C12M 3/06* (2006.01)
C12M 1/00 (2006.01)

(21) International Application Number:
PCT/US2015/034709

(22) International Filing Date:
8 June 2015 (08.06.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/009,553 9 June 2014 (09.06.2014) US

(71) Applicant: **GENZYME CORPORATION** [US/US]; 500 Kendall Street, Cambridge, Massachusetts 02142 (US).

(72) Inventors: **BRUNINGHAUS, Michael**; c/o Sanofi, 55 Corporate Drive, Bridgewater, New Jersey 08807 (US). **KONSTANTINOV, Konstantin**; c/o Sanofi, 55 Corporate Drive, Bridgewater, New Jersey 08807 (US). **WRIGHT, Benjamin**; c/o Sanofi, 55 Corporate Drive, Bridgewater, New Jersey 08807 (US). **ZHOU, Weichang**; c/o Sanofi, 55 Corporate Drive, Bridgewater, New Jersey 08807 (US).

(74) Agents: **REITER, Tiffany** et al.; Fish & Richardson P.C., P.O. Box 1022, Minneapolis, Minnesota 55440-1022 (US).

(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).

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))*

WO 2015/191462 A1

(54) Title: SEED TRAIN PROCESSES AND USES THEREOF

(57) Abstract: Provided herein are seed train processes and methods of producing a recombinant protein that include the use of these seed train processes.