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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 August 2003 (14.08.2003)

PCT

(10) International Publication Number
WO 2003/066822 A3

(51) International Patent Classification[7]: C12Q 1/37

(21) International Application Number:
PCT/US2003/003554

(22) International Filing Date: 5 February 2003 (05.02.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/354,592 5 February 2002 (05.02.2002) US

(71) Applicant *(for all designated States except US)*: **WYETH** [US/US]; 5 Giralda Farms, Madison, NJ 07940 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **GEORGIADIS, Katherine** [US/US]; 46 Trowbridge St., Belmont, MA 02478 (US). **CRAWFORD, Tara, K.** [US/US]; 7 Craigie Circle#24, Cambridge, MA02138 (US). **TOMKINSON, Kathleen, N.** [US/US]; 10 Dana Street#409, Cambridge,MA02138 (US). **RACIE, Lisa** [US/US]; 124 School Street, Acton, MA 01720 (US). **CORCORAN, Christopher** [US/US]; 170 Broadway #3, Arlington, MA 02474 (US). **FREEMAN, Bethany, A.** [US/US]; 52 Foster Street, Arlington, MA 02474 (US). **LAVALLIE, Edward, R.** [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US).

(74) Agents: **BOGLE, Gavin** et al.; Wyeth, Five Giralda Farms, Madison, NJ 07940 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
8 July 2004

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: TRUNCATED AGGRECANASE MOLECULES

(57) Abstract: Truncated aggrecanase proteins and nucleotides sequences encoding them as well as processes for producing them are disclosed. Additionally, aggrecanases with amino acid mutations that lead to increased stability and expression levels in comparison with wild-type or native aggrecanases are also disclosed. Aggrecanases of the invention are especially useful for development of compositions for treatment of diseases such as osteoarthritis. Methods for developing inhibitors of the aggrecanase enzymes and antibodies to the enzymes for treatment of conditions characterized by the degradation of aggrecan are also disclosed.

WO 2003/066822 A3