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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 November 2005 (17.11.2005)

PCT

(10) International Publication Number
WO 2005/107772 A1

(51) International Patent Classification[7]: A61K 31/727, 31/737, A61P 19/00

(21) International Application Number: PCT/SG2005/000137

(22) International Filing Date: 4 May 2005 (04.05.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004902408 7 May 2004 (07.05.2004) AU

(71) Applicant *(for all designated States except US)*: **THE UNIVERSITY OF QUEENSLAND** [AU/AU]; Brisbane, QLD 4072 (AU).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **NURCOMBE, Victor** [AU/SG]; Institute of Molecular and Cell Biology, 61 Biopolis Drive, Proteos, Singapore 138673 (SG). **COOL, Simon** [AU/SG]; Institute of Molecular and Cell Biology, 61 Biopolis Drive, Proteos, Singapore 138673 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER**; P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

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

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (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*

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: COMPOSITION FOR STIMULATING BONE GROWTH AND DIFFERENTIATION AND METHOD FOR ISOLATING SAME

(57) Abstract: This invention relates to isolated heparan sulphate and use thereof to stimulate bone cell growth and differentiation. The invention also relates to use of heparan sulphate with implants, prosthesis and bioscaffolds to repair and regenerate bone. Such use may be for repair of damaged tissue including bone tissue, for example damage resulting from injury or defect.

WO 2005/107772 A1