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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
C12N 15/19, C07K 14/52, C12N 5/10, 15/86, A61K 38/19, 48/00

A2

(11) International Publication Number: WO 99/40197

(43) International Publication Date: 12 August 1999 (12.08.99)

(21) International Application Number: PCT/US99/02425

(22) International Filing Date: 4 February 1999 (04.02.99)

(30) Priority Data:
60/073,979 6 February 1998 (06.02.98) US

(71) Applicant *(for all designated States except US)*: COLLATERAL THERAPEUTICS, INC. [US/US]; 11622 El Camino Real, San Diego, CA 92130 (US).

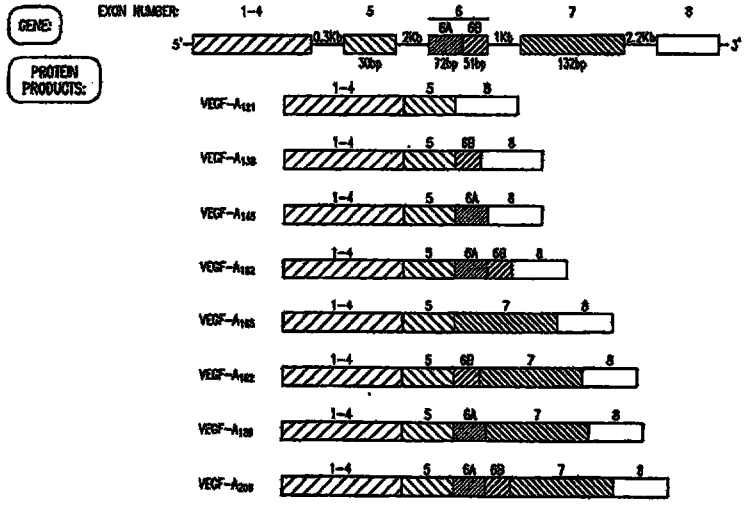
(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: BAIRD, Andrew [US/US]; 5039 Via Papel, San Diego, CA 92122 (US). ANDREASON, Grai [US/US]; 5834 Sagebrush, La Jolla, CA 92037 (US).

(74) Agents: SILVERSTEIN, Sheryl, R. et al.; Lyon & Lyon LLP, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
Without international search report and to be republished upon receipt of that report.

(54) Title: VARIANTS OF THE ANGIOGENIC FACTOR VASCULAR ENDOTHELIAL CELL GROWTH FACTOR: VEGF



(57) Abstract

Novel forms of vascular endothelial growth factor genes and the novel proteins encoded by these genes are disclosed. More particularly, novel forms of human VEGF-A which contain exon 6b and do not contain exon 6a are disclosed. Other novel forms of human VEGF-A contain exon 6b in addition to exon 6a. These novel forms of VEGF-A include VEGF-A_{138}, VEGF-A_{162}, and VEGF-A_{182}. Such novel VEGF proteins may be used in treatment of the cardiovascular system and its diseases through effects on anatomy, conduit function, and permeability, and more particularly in the treatment of cardiovascular disease by stimulating vascular cell proliferation using a growth factor, thereby stimulating endothelial cell growth and vascular permeability. The invention also relates to nucleic acids encoding such novel VEGF proteins, cells, tissues and animals containing such nucleic acids; methods of treatment using such nucleic acids; and methods relating to all of the foregoing.