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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/092068 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2005/009797

(22) International Filing Date: 23 March 2005 (23.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/556,000 24 March 2004 (24.03.2004) US

(71) Applicants *(for all designated States except US)*: **FASGEN, LLC** [US/US]; Bayview Medical Campus, 5210 Eastern Avenue, Baltimore, MD 21224 (US). **JOHNS HOPKINS UNIVERSITY** [US/US]; 3400 N. Charles Street, Baltimore, MD 21218 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **MCCULLOUGH, Louise, D.** [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). **LI, Hong** [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). **MCFADDEN, Jill** [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). **RONNETT, Gabriele, V.** [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US).

(74) Agent: **WILSON, Whitney, N.**; Covington & Burling, 1201 Pennsylvania Avenue, N.W., Washington, DC 20004-2401 (US).

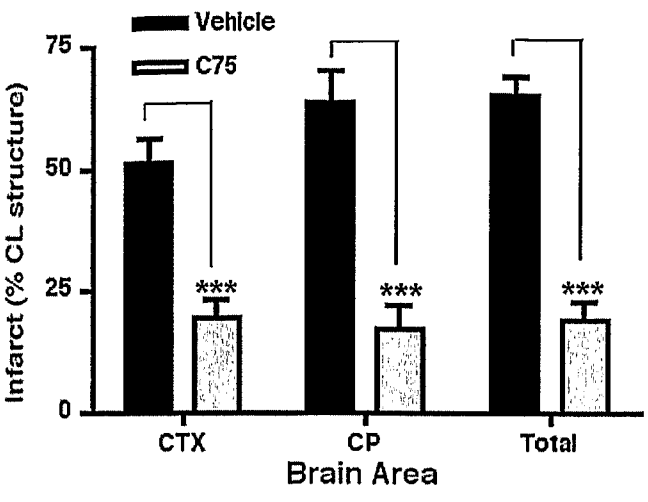
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, 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:
— *without international search report and to be republished upon receipt of that report*

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: NOVEL METHOD OF NEUROPROTECTION BY PHARMACOLOGICAL INHIBITION OF AMP-ACTIVATED PROTEIN KINASE



(57) Abstract: A method of neuroprotection which comprises administration of an AMPK inhibitor to a patient who is experiencing or has experienced a stroke, the compound being an AMPK inhibitor. Treatments with these agents significantly reduce the size of infarcts, and therefore minimize the loss of brain tissue and neurons. Thus, function can be preserved after stroke or ischemic injury in the brain. Similarly, neuronal loss can be minimized in degenerative diseases that cause neuronal compromise by perturbing energy utilization and availability in neurons.

WO 2005/092068 A2