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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 February 2007 (15.02.2007)

PCT

(10) International Publication Number
WO 2007/018894 A2

(51) International Patent Classification:
A61K 38/48 (2006.01)

(21) International Application Number:
PCT/US2006/026739

(22) International Filing Date: 11 July 2006 (11.07.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
200510028577.4 8 August 2005 (08.08.2005) CN

(71) Applicant and
(72) Inventor: **HOANG, Kieu** [US/US]; 30423 Canwood St. #120, Agoura Hills, CA 91301 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **ZHANG, Zhun** [CN/CN]; N. 55 Beidou Rd., Minhang, Shanghai 200245 (CN). **MEECHAM, Thu, Ho** [US/US]; 30423 Canwood St. #120, Agoura Hills, CA 91301 (US). **SHU, Bixiong** [CN/CN]; No. 55 Beidou Rd., Minhang, Shanghai 200245 (CN). **XIA, Zhao** [CN/CN]; No. 55 Beidou Rd., Minhang, Shanghai 200245 (CN). **JUNHUI, Li** [CN/CN]; No. 55 Beidou Rd., Minhang, Shanghai 200245 (CN).

(74) Agent: **SHANNON, John, P.**; MEREK, BLACKMON & VOORHEES, LLC, 673 S. Washington St., Alexandria, VA 22314 (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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: A KIT OF LYOPHILIZED THROMBIN AND LYOPHILIZED FIBRINOGEN USED TO COMPOUND FIBRIN MEMBRANE, AND ITS APPLICATION



(57) Abstract: A kit of lyophilized thrombin and lyophilized fibrinogen comprises fibrinogen of 50- 100 mg/ml, thrombin of 100-1000 IU/ml and 20-60 mmol/L $CaCl_2$ used to compound fibrin membrane. The lyophilized thrombin and lyophilized fibrinogen are applied in a clinical tumor operation for reducing the risk of tumor metastasis after the operation. The solutions of thrombin and fibrinogen are daubed on the surface of a tumor, where they mix and form a solid-meshy fibrin membrane that prevents pervasion of tumor cells caused by incision and trauma in the tumor operation, thereby reducing the risk of palindromia and metabasis after the operation and improving the patient's life span.

WO 2007/018894 A2

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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.