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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 February 2010 (11.02.2010)

PCT

(10) International Publication Number
WO 2010/017500 A3

(51) **International Patent Classification**:
***A61K 39/395*** (2006.01) ***C07K 16/00*** (2006.01)
***G01N 33/53*** (2006.01)

(21) **International Application Number**:
PCT/US2009/053192

(22) **International Filing Date**:
7 August 2009 (07.08.2009)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:

| | | |
|---|---|---|
| 61/087,463 | 8 August 2008 (08.08.2008) | US |
| 12/343,655 | 24 December 2008 (24.12.2008) | US |
| 61/144,227 | 13 January 2009 (13.01.2009) | US |
| 12/418,877 | 6 April 2009 (06.04.2009) | US |

(71) **Applicant** *(for all designated States except US)*: **IMMUNOMEDICS, INC.** [—/US]; 300 American Road, Morris Plains, NJ 07950 (US).

(72) **Inventors; and**

(75) **Inventors/Applicants** *(for US only)*: **GOLDENBERG, David, M.** [US/US]; 300 American Road, Morris Plains, NJ 07950 (US). **HANSEN, Hans, J.** [US/US]; 300 American Road, Morris Plains, NJ 07950 (US). **CHANG, Chien-Hsing** [US/US]; 300 American Road, Morris Plains, NJ 07950 (US). **GOLD, David, V.** [US/US]; 300 American Road, Morris Plains, NJ 07950 (US).

(74) **Agent**: **NAKASHIMA, Richard, A.**; 300 American Road, Morris Plains, NJ 07950 (US).

(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, 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), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published**:

— *with international search report (Art. 21(3))*

— *with sequence listing part of description (Rule 5.2(a))*

(88) **Date of publication of the international search report**:
22 April 2010

WO 2010/017500 A3

(54) **Title**: ANTI-PANCREATIC CANCER ANTIBODIES

(57) **Abstract**: Described herein are compositions and methods of use of anti-pancreatic cancer antibodies or fragments thereof, such as murine, chimeric, humanized or human PAM4 antibodies. The subject antibodies show a number of novel and useful therapeutic characteristics, such as binding with high specificity to pancreatic and other cancers, but not to normal or benign pancreatic tissues and binding to a high percentage of early stage pancreatic cancers. In preferred embodiments, the antibodies bind to pancreatic cancer mucins. The antibodies and fragments are of use for the detection, diagnosis and/or treatment of cancer, such as pancreatic cancer. The antibodies, such as PAM4 antibodies, bind to a PAM4 antigen that shows unique cell and tissue distributions compared with other known antibodies such as CA19.9, DUPAN2, SPAN1, Nd2, B72.3, and Lea[a] and Le(y) antibodies that bind to the Lewis antigens.