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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 February 2001 (08.02.2001)

PCT

(10) International Publication Number
WO 01/09192 A1

(51) International Patent Classification[7]: C07K 16/30, 16/28, A01K 67/027, A61K 39/395, G01N 33/574, C12N 5/20, C07K 16/46, A61P 35/00

(21) International Application Number: PCT/US00/20247

(22) International Filing Date: 26 July 2000 (26.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/146,285	29 July 1999 (29.07.1999)	US
60/158,759	12 October 1999 (12.10.1999)	US
60/188,087	9 March 2000 (09.03.2000)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US	60/146,285 (CON)
Filed on	29 July 1999 (29.07.1999)
US	60/158,759 (CON)
Filed on	12 October 1999 (12.10.1999)
US	60/188,087 (CON)
Filed on	9 March 2000 (09.03.2000)

(71) Applicant *(for all designated States except US)*: **MEDAREX, INC.** [US/US]; P.O. Box 953, 1545 Route 22 East, Annandale, NJ 08801-0953 (US).

(72) Inventors; and

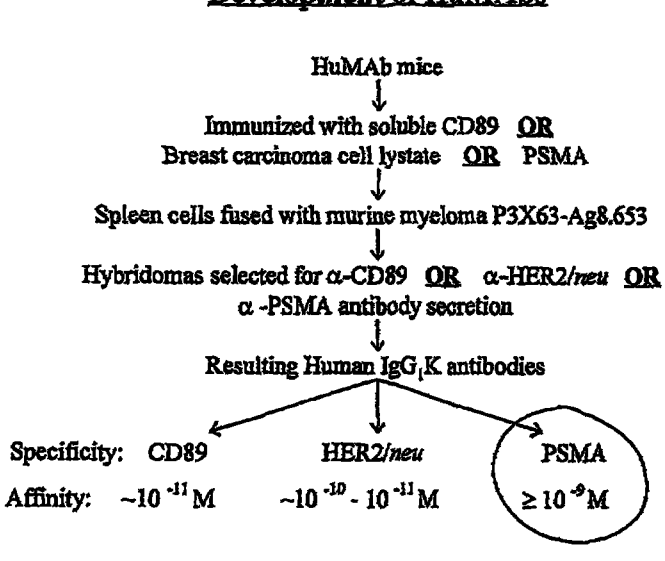
(75) Inventors/Applicants *(for US only)*: **DEO, Yashwant** [US/US]; 3009 Peacock Drive, Audubon, PA 19403 (US). **GRAZIANO, Robert** [US/US]; 1046 County Road, Route 519, Frenchtown, NJ 08825 (US). **HUDSON, Debra** [US/US]; * (US).

(74) Agents: **REMILLARD, Jane, E.** et al.; Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: HUMAN MONOCLONAL ANTIBODIES TO PROSTATE SPECIFIC MEMBRANE ANTIGEN



(57) Abstract: Isolated human monoclonal antibodies and antigen-binding portions thereof which specifically bind to PSMA are disclosed. Also disclosed are bispecifics which include the antibodies or antibody portions. The human antibodies can be produced in a non-human transgenic animal, e.g., a transgenic mouse, capable of producing multiple isotypes of human monoclonal antibodies by undergoing V-D-J recombination and isotype switching. Also disclosed are pharmaceutical compositions comprising the human antibodies, non-human transgenic animals and hybridomas which produce the human antobodies, and therapeutic and diagnostic methods for using the human antibodies.

WO 01/09192 A1

(84) **Designated States** *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, 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:

— *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.