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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 February 2003 (13.02.2003)

PCT

(10) International Publication Number
WO 03/011115 A3

(51) International Patent Classification[7]: A61B 5/055

(21) International Application Number: PCT/US02/24261

(22) International Filing Date: 30 July 2002 (30.07.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/308,721 30 July 2001 (30.07.2001) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 60/308,721 (CIP)
Filed on 30 July 2001 (30.07.2001)

(71) Applicant *(for all designated States except US)*: **EPIX MEDICAL, INC.** [US/US]; 71 Rogers Street, Cambridge, MA 02142-1118 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ZHANG, Zhaoda** [US/US]; 4 Inwood Lane, Andover, MA 01810 (US). **CARAVAN, Peter, D.** [CA/US]; 151 Walden Street, Cambridge, MA 02140 (US). **MCMURRY, Thomas, J.** [US/US]; 4 Bonad Road, Winchester, MA 01890 (US). **KOLODZIEJ, Andrew** [US/US]; 390 South Border Road, Winchester, MA 01890 (US). **NAIR, Shrikumar** [IN/US]; 1 Candlewick Close, Lexington, MA 02421 (US). **AMEDIO, John, C.** [US/US]; 30 Charles Drive, Franklin, MA 02038 (US). **DUMAS, Stephane** [FR/US]; 321 Harvard Street, Apt. 102, Cambridge, MA 02139 (US). **WANG, Xifang** [CN/US]; 107 Beech Street #3, Belmont, MA 02478 (US). **SUN, Wei-Chuan** [US/US]; 6 Myrtle Drive, Acton, MA 01720 (US). **NIVOROZHKIN, Alexander, L.** [RU/US]; 118 Dent Street, West Roxbury, MA 02132 (US). **KOERNER, Steffi, K.** [DE/US]; 18 Gibbens Street, Apt. 1, Somerville, MA 02143 (US).

(74) Agent: **ELLINGER, Mark, S.**; Fish & Richardson P.C., P.A., 60 South Sixth Street, Suite 3300, Minneapolis, MN 55402 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, 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*

(88) Date of publication of the international search report:
22 May 2003

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.

WO 03/011115 A3

(54) Title: PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST AGENTS

(57) Abstract: Peptides and peptide-targeted multimeric contrast agents are described, as well as methods of making and using the contrast agents.