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(71) Applicants (for all designated States except US): **MER-RIMACK PHARMACEUTICALS, INC.** [US/US]; One Kendall Square, Suite B7201, Cambridge, MA 02139 (US). **SANOFI** [FR/FR]; 54 rue La Boetie, F-75008 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MOYO, Victor** [ZW/US]; 450 College Road, Concord, MA 01742 (US). **PEARLBERG, Joseph** [US/US]; 24 Grovenor Rd, Jamaica Plain, MA 02130U (US). **TABAH-FISCH, Isabelle** [FR/FR]; 62 Bis, Rue Bellevue, F-92100 Boulogne (FR).

(74) Agents: **REMILLARD, Jane, E.** et al.; Nelson Mullins Riley & Scarborough LLP, One Post Office Square, Boston, MA 02109-2127 (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, BN, 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, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Published:

- with international search report (Art. 21(3))
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WO 2013/023043 A3

(54) Title: TREATMENT OF ADVANCED SOLID TUMORS USING COMBINATION OF ANTI-ERBB3 IMMUNOTHERAPY AND SELECTED CHEMOTHERAPY

(57) Abstract: Provided are methods and compositions for clinical treatment of solid tumors (e.g., advanced solid tumors) using anti-ErbB3 antibodies combined with a second agent selected from the group consisting of gemcitabine, carboplatin, pemetrexed, and cabazitaxel. Also provided are methods and compositions for clinical treatment of solid tumors using anti-ErbB3 antibodies combined with cetuximab and irinotecan.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US 12/50124

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC(8) - A61K 38/00; A61P 35/00; C07K 16/00 (2012.01)  
 USPC - 514/19.3; 530/387.1, 387.7, 388.22  
 According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 USPC - 514/19.3; 530/387.1, 387.7, 388.22  
 IPC(8) - A61K 38/00; A61P 35/00; C07K 16/00 (2012.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 USPC- 514/19.2, 19.4, 19.5, 19.6, 19.7, 19.8; 435/326; 424/130.1  
 (Text search - search terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 PatBase; PubWEST (PGPB, USPT, USOC, EPAB, JPAB) and Google Scholar.  
 Search Terms: ErbB3, antibody, gemcitabine, carboplatin, pemetrexed, cabazitaxel, cetuximab, tumor, cancer, her3, day, week, mg/m2, mg/m, mg, cycle.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2010/0056761 A1 (SCHOEBERL et al.) 04 March 2010 (04.03.2010) SEQ ID NOs: 7-12; para [0004], [0008], [0020], [0021], [0127], [0128], [0130], [0183], [0204]; Table, pg 11, 12, 15	22-27 ----- 1-8, 11 and 18-21
Y	US 2009/0082295 A1 (JUNGNELIUS et al.) 26 March 2009 (26.03.2009) para [0061], [0161], [0245]-[0252]	1-2 and 11
Y	US 2007/0117815 A1 (PLUDA et al.) 24 May 2007 (24.05.2007) para [0022], [0044], [0046], [0200]	3
Y	US 2011/0189092 A1 (ELIASOF et al.) 04 August 2011 (04.08.2011) para [0876], [0881], [0892], [1838]-[1842]	4
Y	US 2009/0214562 A1 (KAREL) 27 August 2009 (27.08.2009) para [0189]-[0194]	5-8 and 18-21
A	US 2011/0027291 A1 (SCHOEBERL et al.) 03 February 2011 (03.02.2011) para [0027], [0036], [0053], [0288]	26
A	US 7,846,440 B2 (SCHOEBERL et al.) 07 December 2010 (07.12.2010) SEQ ID Nos: 25-26; Fig 22A.	27

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 09 January 2013 (09.01.2013)	Date of mailing of the international search report <b>28 JAN 2013</b>
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young  PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 12/50124

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
- 2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
- 3.  Claims Nos.: 9-10 and 12-17  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

- 1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
- 2.  As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
- 3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
- 4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.