

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number  
**WO 2005/105159 A3**

- (51) International Patent Classification<sup>7</sup>: **A61K 51/00**, 49/00
- (21) International Application Number:  
PCT/US2005/014459
- (22) International Filing Date: 27 April 2005 (27.04.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/566,146 28 April 2004 (28.04.2004) US  
11/113,486 25 April 2005 (25.04.2005) US
- (71) Applicant (for all designated States except US): **BRISTOL-MYERS SQUIBB PHARMA COMPANY** [US/US]; Route 206 and Province Line Road, Princeton, New Jersey 08543-4000 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **RADEKE, Heike, S.** [DE/US]; 15 Seaver Farm Lane, South Grafton, Massachusetts 01560 (US). **CASEBIER, David, S.** [US/US]; 161 Ember Lane, Carlisle, Massachusetts 01741 (US). **AZURE, Michael, T.** [US/US]; 41 Flanders Road, Henniker, New Hampshire 03242 (US). **DISCHINO, Douglas, D.** [US/US]; 76 Louis Road, Middlefield, Connecticut 06455 (US).
- (74) Agents: **MINGO, Pamela** et al.; Bristol-Myers Squibb Company, P.O. Box 4000, Princeton, New Jersey 08543-4000 (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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, HU, IE, IS, IT, LT, LU, 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).
- Declarations under Rule 4.17:**  
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))  
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- Published:**  
— with international search report
- (88) Date of publication of the international search report:  
27 April 2006
- 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.

(54) Title: CONTRAST AGENTS FOR MYOCARDIAL PERFUSION IMAGING

(57) Abstract: The present disclosure is directed, in part, to compounds and methods for imaging myocardial perfusion, comprising administering to a patient a contrast agent which comprises a compound that binds MC-1, and an imaging moiety, and scanning the patient using diagnostic imaging.



WO 2005/105159 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/14459

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : A61K 51/00, 49/00 US CL : 424/1.65, 1.81, 1.85; 1.89, 9.1 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 424/1.65, 1.81, 1.85, 1.89, 9.1 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/0034239 A1 (NICOLAOU et al) 19 February 2004 (19.02.2004), see figures and pages 1-2	1-32
Y	US 2004/0033197 A1 (MADAR et al) 19 February 2004 (19.02.2004), see abstract and pages 1-3.	1-32
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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)	"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
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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	Date of mailing of the international search report	
16 September 2005 (16.09.2005)	21 OCT 2005	
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. (703) 305-3230	Authorized officer Michael G. Hartley <i>Margaret Watson</i> Telephone No. (703) 308-1235	

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US05/14459

Continuation of B. FIELDS SEARCHED Item 3:

APS

search terms: acetogenin, quinone, chromone, deguelin, nadh, uiquinone, imaging, contrast, f-18, radiolabeled.