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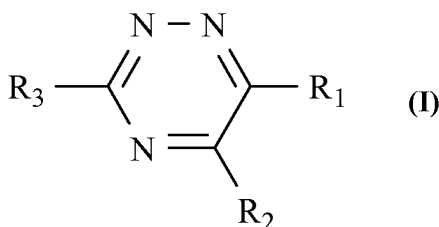
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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, 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, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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(54) **Title:** TRIAZINE 11-BETA HYDROXYSTEROID DEHYDROGENASE TYPE I INHIBITORS



(57) **Abstract:** Novel compounds are provided which are 11-beta-hydroxysteroid dehydrogenase type I inhibitors. 11-beta-hydroxysteroid dehydrogenase type I inhibitors are useful in treating, preventing, or slowing the progression of diseases requiring 11-beta-hydroxysteroid dehydrogenase type I inhibitor therapy. These novel compounds have the structure: (I) or stereoisomers or prodrugs or pharmaceutically acceptable salts thereof, wherein R₁, R₂ and R₃ are defined herein.

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A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D253/06 C07D253/08 A61K31/53 A61P5/46

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)

C07D A61K

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 practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>TEMPLE C ET AL: "Potential Antimitotic Agents. Synthesis of Some Ethyl Benzopyrazin-7-yl-carbamates, Ethyl Pyrido[3,4-b]pyrazin-7-yl-carbamates, and Ethyl Pyrido[3,4-e]-as-triazin-7-yl-carbamates" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 33, 1990, pages 3044-3050, XP002293472 ISSN: 0022-2623 compound 50</p> <p style="text-align: center;">----- -/--</p>	1-22



Further documents are listed in the continuation of Box C.



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
- *E* earlier document but published on or after the international filing date
- *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)
- *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

- *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
- *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
- *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.
- *&* document member of the same patent family

Date of the actual completion of the international search

10 September 2007

Date of mailing of the international search report

17/09/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KONNO ET AL: "Studies on as-triazine derivatives. XVIII. Synthesis of 5,6-diaryl-1,2,4-triazine derivatives as blood platelet aggregation inhibitors" PHARMACEUTICAL SOCIETY OF JAPAN. JOURNAL - YAKUGAKU ZASSHI, PHARMACEUTICAL SOCIETY OF JAPAN, TOKYO, JP, vol. 112, no. 10, 1992, pages 729-741, XP009088778 ISSN: 0031-6903 Tble I, Chart 1, Table II, Table III, Table IV compounds 25 and 1,	1-22
X	ODA HIROHISA ET AL: "SYNTHESIS AND HERBICIDAL ACTIVITIES OF PYRIDAZIDAZINO(4,5-E)-1,2,4-TRIAZINES" GIFU YAKKA DAIGAKU KIYO - GIFU PHARMACEUTICAL UNIVERSITY. NEWSLETTER, GIFU YAKKA DAIGAKU, TOKYO, JP, vol. 36, 1987, pages 42-48, XP001536271 ISSN: 0434-0094 Table I, compounds of formula IV	1-18
X	KOLOBOVA ET AL: "Choice criterions of individual triazine compounds with high inhibiting ability" BASHKIRSKII KHIMICHESKII ZHURNAL, XX, XX, vol. 11, no. 2, 2004, pages 58-61, XP009088789 page 59; table 1	1-18
X	TANAKA A ET AL: "Studies on anti-platelet agents. V. Synthesis and structure-activity relationship of 3-substituted 5,6-bis(4-methoxyphenyl)-1,2,4-triazines" CHEMICAL AND PHARMACEUTICAL BULLETIN, PHARMACEUTICAL SOCIETY OF JAPAN, TOKYO, JP, vol. 42, no. 9, 1994, pages 1835-1840, XP002274901 ISSN: 0009-2363 page 1837; compounds 8, 15-23	1-22

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INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KONNO SHOETSU ET AL: "Studies on as-triazine derivatives. XIX. Synthesis of 2,3-diarylpyrazine and 2,3-diarylpyridine derivatives as blood platelet aggregation inhibitors" YAKUGAKU ZASSHI - JOURNAL OF THE PHARMACEUTICAL SOCIETY OF JAPAN, NIHON YAKUGAKKAI, TOKYO,, JP, vol. 113, no. 1, 1993, pages 40-52, XP002955687 ISSN: 0031-6903 compounds 13C,13D	1-18
X	TANAKA A ET AL: "STUDIES ON ANTI-PLATELET AGENTS. IV. A SERIES OF 2-SUBSTITUTED 4,5-BIS(4-METHOXYPHENYL)PYRIMIDINES AS NOVEL ANTI-PLATELET AGENTS" CHEMICAL AND PHARMACEUTICAL BULLETIN, PHARMACEUTICAL SOCIETY OF JAPAN, TOKYO, JP, vol. 42, no. 9, 1994, pages 1828-1834, XP001153833 ISSN: 0009-2363 Anitrazafen, Fig.1; compounds 16, 18,	1-22
X	EP 0 469 773 A2 (NALCO CHEMICAL CO [US]) 5 February 1992 (1992-02-05) page 5	1
X	EP 0 186 868 A (EASTMAN KODAK CO [US]) 9 July 1986 (1986-07-09) page 10, line 20 - line 25	1
X	EP 0 198 286 A2 (EASTMAN KODAK CO [US]) 22 October 1986 (1986-10-22) page 9, line 1 - line 5	1
A	WO 03/104207 A (MERCK & CO INC [US]; OLSON STEVEN H [US]; BALKOVEC JAMES M [US]; ZHU Y) 18 December 2003 (2003-12-18) the whole document	1-22

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Box 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:

Although claims 19 to 21 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
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.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box 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 an additional fee, this Authority did not invite payment of any additional fee.
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.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/063012

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