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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
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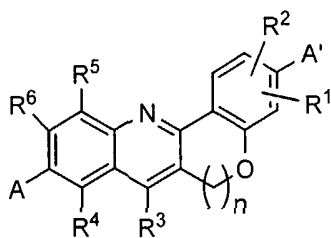
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For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: 6H-[1]BENZOPYRANO[4,3-b]QUINOLINES AND THEIR USE AS ESTROGENIC AGENTS



I

(57) Abstract: This invention provides 6H-[1]benzopyrano[4,3-b]quinoline  
compounds having the formula I: The invention further provides compositions  
including the compounds, methods for the use of the compounds, and the methods  
of preparation of the compounds.



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INTERNATIONAL SEARCH REPORT

International application No  
 PCT/US2005/031696

A. CLASSIFICATION OF SUBJECT MATTER  
 C07D491/06 A61K31/47 A61P35/00

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 A61P

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, PAJ, WPI Data, 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	N. MALECKI ET AL: "Synthesis of condensed quinolines and quinazolines as DNA ligands" BIOORGANIC & MEDICINAL CHEMISTRY, vol. 12, no. 3, 2004, pages 641-647, XP002365959 page 643, left column, compound 19c	1,7-23
A	WO 96/19458 A (LIGAND PHARMACEUTICALS INCORPORATED) 27 June 1996 (1996-06-27) general formulae V-VIII, XII-XVI page 4, line 2 - page 4, line 8; claims	1-60
A	WO 2004/073610 A (MERCK & CO., INC; SUN, WANYING; CAMA, LOVJI, D) 2 September 2004 (2004-09-02) page 5, line 2 - page 5, line 8; claims	1-60

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	*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 document but 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	*Z* 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  3 February 2006	Date of mailing of the international search report  09/03/2006
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Schmid, A
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2005/031696

## 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.: 61  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
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.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box II.1

The set of claims consists of claim 1 and claims 1-60. Since claim 1 is double the search has been performed with an internal numbering of claim 1-60 to claims 2-61.

Although renumbered claims 38-57 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.

Renumbered claim 61 contains a reference to renumbered process claim 60 which is in fact a product claim. Accordingly is has not been searched.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No  
PCT/US2005/031696

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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