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(54) Title: NON-MYELOSUPPRESSIVE COMPOUNDS, PHARMACEUTICAL COMPOSITIONS THEREOF, AND METHODS OF TREATMENT

(57) Abstract: The present invention provides microtubule targeting compounds that are myelo-sparing. Particularly, the MTCs of the invention are structurally designed to exhibit specificity for inhibiting β -tubulin isotypes that are not related to the myelosuppression associated with other known MTCs. The invention further provides pharmaceutical compositions incorporating the inventive MTCs and methods of treating cancer using the MTCs. The invention still further provides various assays for identifying myelo-sparing compounds and determining whether such compounds are indicated for use with specific patients.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/039679**A. CLASSIFICATION OF SUBJECT MATTER****C07D 305/14(2006.01)i**

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)

IPC: C07D 305/14

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)
eKOMPASS(KIPO internal)**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- A	CHEN, S.-H. ET AL., "NOVEL C-4 PACLITAXEL(TAXOL) ANALOGS: POTENT ANTITUMOR AGENTS", BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 1995, Vol. 5, No.22, pages 2741-2746. see table 2.	1-30 ----- 31-76
P, X	CHEN, Q.-H. ET AL., "DESIGN, SYNTHESIS AND BIOLOGICAL EVALUATION OF BRIDGED EPOTHILONE D ANALOGUES", ORGANIC & BIOMOLECULA CHEMISTRY, December 2008, Vol. 6, pages 4542-4552. see schemes 1-10; table 1.	77-80
X	REGUEIRO-REN, A. ET AL., "SYNTHESIS AND BIOLOGICAL ACTIVITY OF NOVEL EPOTHILONE AZIRIDINES", ORGANIC LETTERS, 2001, Vol. 3, No. 17, pages 2693-2696. see table 1; fig. 2.	77-80
X	WO 99/54319 A1 (BRISTOL-MYERS SQUIBB CO.) 28 October 1999 see examples 5, 8, 9, 13; claims 1-5.	77-80
X	WO 02/098868 A1 (BRISTOL-MYERS SQUIBB CO.) 12 December 2002 see table 1; claims 1-9; examples 5, 8, 9, 13, 21-24.	77-80

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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