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(54) Title: MODULATION OF CELL FATES AND ACTIVITIES BY PHTHALAZINE DIONES

(57) Abstract: Phthalazine diones that function as intracellular redox modulators and buffers are used to treat stressed cells in various disease states in which the intracellular redox status is impaired. By optimal buffering of aberrant redox states, phthalazine diones enhance the cellular processes essential for survival and augment the conventional or other external therapies necessary for treatment. The phthalazine diones of the invention thus regulate cell growth, differentiation, or death to serve as essential adjunctive therapy for the stressed host in various disease states.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/34303

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61K 38/00, 31/65, 31/56, 31/495, 31/195  
 US CL : 514/18, 154, 171, 248, 562

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)  
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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)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,279,940 A (KISSEL) 18 January 1994 (18.01.94), see the entire document.	1-18
A	US 5,719,151 A (SHALL et al.) 17 February 1998 (17.02.98), see the entire document.	1-18

Further documents are listed in the continuation of Box C.

See patent family annex.

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