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(54) Title: NUCLEOSIDE-LIPID CONJUGATES, THEIR METHOD OF PREPARATION AND USES THEREOF

(57) Abstract: The invention provides methods for synthesizing nucleoside-lipid conjugates having varying fatty acid and alkyl chain lengths with or without unsaturation and their use in the treatment of cancer and viral diseases. More particularly, the invention provides methods for preparing gemcitabine-cardiolipin conjugates, and analogues thereof, cytarabine-cardiolipin conjugates, and analogues thereof. Additionally, the methods of the invention comprise administering a compound of invention as prodrug or a pharmaceutical preparation to combat mammalian diseases, preferably cancer, viral infections and bone disorders.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61K 31/70(2006.01),31/7052(2006.01),31/7068(2006.01),31/7072(2006.01),31/7076(2006.01)

USPC: 514/49,45,46,47,48,50,51,52;536/22.1,28.4

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)

U.S. : 514/49,45,46,47,48,50,51,52;536/22.1,28.4

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.
X	US 3,564,089 (KIDDY) 16 February 1971 (15.02.1971), see especially col. 6, lines 10-41.	148-149
A	SCHNEIDER et al. Oligonucleotides containing flexible nucleoside analogs; Journal of American Chemical Society (1990), 112 (1), 453-455, see entire article.	1-152
A	HONG et al. Nucleoside Conjugates. 15. Synthesis and Biological Activity of Anti-HIV Nucleoside Conjugates of Ether and Thioether Phospholipids1; Journal of Medicinal Chemistry (1996), 39, 1771-1777, see entire article.	1-152
A	US 6,384,019 B1 (MYHREN et al) 07 May 2002 (07.05.2002), see entire patent.	1-152
A	EARLY et al. Lake Michigan Sponge Phosphatic Metabolite Variations with Habitat: a 31P Nuclear Magnetic Resonance Study; Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1999), 123B (4), 329-343, see entire article.	1-152

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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