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[Continued on next page]

(54) Title: N4 MODIFICATIONS OF PYRIMIDINE ANALOGS AND USES THEREOF

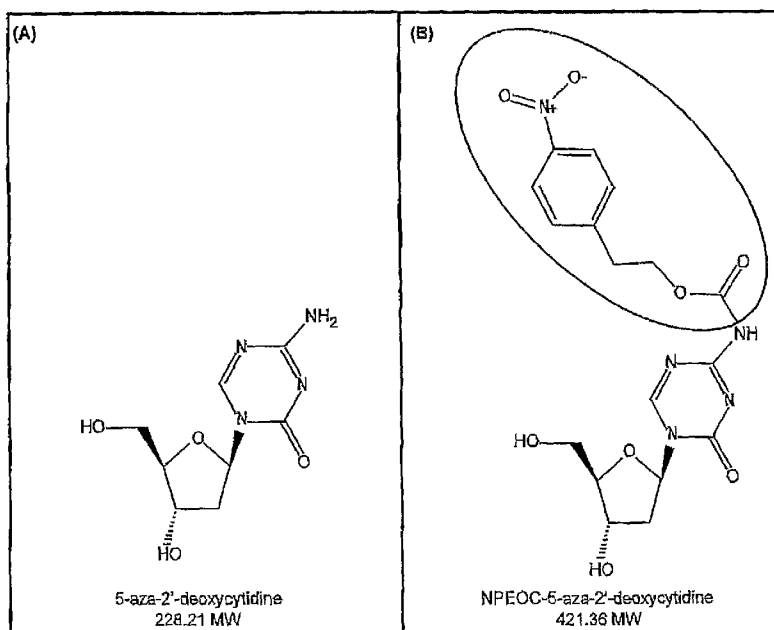


FIG. 1

(57) Abstract: The present invention relates to N4 carboxylester or ester derivatives of pyrimidine analogs with increased stability, solubility, and bioavailability. Also disclosed are methods of using these compounds for targeted drug delivery and combination therapy.

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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
 USPC: 435/69.1, 514/44, 49 (see also text search below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Electronic Databases Searched: PubWEST(USPT,PGPB,EPAB,JPAB); USPTO, Google, Answers.com, Google Scholar
 Search Terms Used: Pyrimidine, nucleic, acid, methylation, control, epigenetic, cell, target, carbon, chain, ring, homocyclic, 5-azacytidine, 5-aza-2'-deoxycytidine, 5-fluorocytidine, histone deacetylase, histone methylation

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/0159347 A1 (DIMARTINO) 21 July 2005 (21.07.2005) para [0009], [0023], [0026], [0028]-[0029], [0031]-[0032], [0037], [0052], [0060], [0066], [0086], [0106], [0122]-[0124], [0128], [0131], [0384], [0520], [0551], [0600]; Figs. 1-3	1-3, 10-11, 15-17, 19, 21-22, 24
Y		4-9, 12-14, 18, 20, 23, 25
Y	US 2005/0130949 A1 (FRYDMAN et al.) 16 June 2005 (16.06.2005) para [0075]	4-6, 12 and 20
Y	US 2006/0223088 A1 (ROSEN et al.) 05 October 2006 (05.10.2006) para [0123]-[0124], [0263], [0520]	7-9, 13-14 and 18
Y	US 2006/0239909 A1 (ANDERSON et al.) 26 October 2006 (26.10.2006) para [0067]	23 and 25
Y	US 2005/0287594 A1 (CRAVATT et al.) 29 December 2005 (29.12.2005) para [0208]	5
A	US 2005/0037992 A1 (LYONS et al.) 17 February 2005 (17.02.2005)	1-25
A	WO 2005/085196 A2 (GARCIA BOY et al.) 15 September 2005 (15.09.2005), abstract, pg 1	1-25
A	US 2006/0074124 A1 (NAPPER et al.) 06 April 2006 (06.04.2006)	1-25

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