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(54) Title: THERAPEUTIC DELIVERY COMPOSITIONS AND METHODS OF USE THEREOF

(57) Abstract: The present invention relates to compositions and methods for treating infectious diseases and genetic disorders through gene therapy and intracellular delivery of nucleic acid sequences. The methods and compositions rely on copolymers of polyethylene oxide and polypropylene oxide.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/24425

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/00, 38/00, 47/00, 45/00

US CL : 514/1, 2, 44; 424/278.1, 280.1

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. : 514/1, 2, 44; 424/278.1, 280.1

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)
WEST, STN: medline caplus embase biosis biotechs scisearch**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,234,683 A (HUNTER et al) 10 August 1993(10.08.1993), claims 1-12, column 24, lines 20-29, column 17, lines 9-17, and column 2, lines 36-38).	1-4, 7-10, 13-15, 17-20, 22 ----- 6
X --- Y	US 4,902,500 A (JANSEN et al) 20 February 1990 (20.02.1990), see entire document especially abstract and see column 1, lines 33-37, column 2, lines 7-17, and column 2, line 63 to column 3, line 9.	1-4, 7-10, 13-15, 17-20, 22 ----- 31
Y	Database Medline on STN (Columbus, Ohio, USA), No. 89260215, 'Adjuvant activity of water insoluble surfactants', abstract, Woodard et al., May 1989.	5, 11, 12, 16, 21
P, X --- P, Y	US 6,359,054 B1 (LEMIEUX et al) 19 March 2002 (19.03.2002), see entire document, especially . claim 13 at column 49, column 21, lines 15-29, column 15, lines 8-45 and 25-31, and column 14, lines 34-36 and 54-62.	1-22 ----- 23-35
X --- Y	US 6,093,391 A (KABANOV et al) 25 July 2000 (25.07.2000), see claim 2, especially lines 29 and 30; and claim 11 and 15-27, see also column 14, lines 26 and 30.	23, 27, 30 ----- 24-26, 28, 29, 31-33, 35



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:		"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
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,656,611 A (KABANOV et al) 12 August 1997 (12.08.1997), see entire document especially column 10, lines 9-28, abstract, and column 7, line 23 to column 8, line 11, especially column 7, lines 35-38.	23-35
X	US 5,824,322 A (BALASUBRAMANIAN) 20 October 1998 (20.10.1998), see claims 1-8.	23-26, 28, 30
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Y		31-33, 35
Y	Database Medline on STN (Columbus, Ohio, USA), No: 1986-10657 'Curved rods related to Mobiluncus: phenotypes as defined by monoclonal antibodies; hybridoma generation and monoclonal antibody production, abstract, Pahlson et al, 1986,	5, 11, 12, 16, 21