



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>A61K 48/00, C12N 15/86</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 96/20732</b> <b>(43) International Publication Date:</b> 11 July 1996 (11.07.96)
<b>(21) International Application Number:</b> PCT/US95/16967 <b>(22) International Filing Date:</b> 20 December 1995 (20.12.95) <b>(30) Priority Data:</b> 08/366,788 30 December 1994 (30.12.94) US <b>(71) Applicant:</b> CHIRON VIAGENE, INC. [US/US]; 4560 Horton Street, Emeryville, CA 94608 (US). <b>(72) Inventors:</b> SONG, Elizabeth, S.; 16073 Cross Fox Court, Poway, CA 92064 (US). KOWAL, Kieron, J.; 12726 Briarwood Place, Poway, CA 92064 (US). JOLLY, Douglas, J.; 277 Hillcrest Drive, Leucadia, CA 92024 (US). MON-TISANO, Dominic; 5069 Merrimac Court, San Diego, CA 92117 (US). <b>(74) Agents:</b> KRUSE, Norman, J. et al.; Chiron Corporation, Intellectual Property - R440, P.O. Box 8097, Emeryville, CA 94662-8097 (US).	<b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <b>(88) Date of publication of the international search report:</b> 12 December 1996 (12.12.96)	
<b>(54) Title:</b> NON-TRAUMATIC ADMINISTRATION OF GENE DELIVERY VEHICLES		
<b>(57) Abstract</b>		
<p>The non-traumatic administration of one or more gene delivery vehicles ("GDVs") to an animal. Such non-traumatic administration provides significant advantages over prior methods of administration because it does not require any injection or other invasion of the recipient, and therefore is much less injurious to the recipient. Further, because there is no injection or invasion, there is typically less need for highly skilled personnel to administer the GDVs, there is less need for sterile conditions, and there is less risk of infection, injury and other side effects.</p>		

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 95/16967

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 A61K48/00 C12N15/86		
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 6 C12N A61K		
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 practical, 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	WO,A,93 03769 (UNITED STATES OF AMERICA) 4 March 1993 see the whole document ---	1-10
X	EP,A,0 586 076 (AMERICAN HOME PRODUCTS CORPORATION) 9 March 1994 see the whole document ---	1-10
X	WO,A,94 23582 (GENETIC THERAPY INC.) 27 October 1994 see page 7, line 9 - line 23 -----	1-10
<input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "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) "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 "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 "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 "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. "&" document member of the same patent family		
Date of the actual completion of the international search  25 October 1996		Date of mailing of the international search report  05. 11. 96
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer  Skelly, J

2

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 95/ 16967

**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 1-10  
because they relate to subject matter not required to be searched by this Authority, namely:  
Remark: Although claim(s) 1-10 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 95/16967

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