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(54) Title: INFECTIOUS, CHIMERIC HEPATITIS C VIRUS, METHODS OF PRODUCING THE SAME AND METHODS OF USE THEREOF

(57) Abstract: The present invention provides infectious recombinant Hepatitis C Viruses (HCV), and vectors, cells and animals comprising the same. The present invention provides methods of producing infectious recombinant HCV, and their use in identifying anti-HCV therapeutic agents, as well as sequences of HCV associated with HCV pathogenesis.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/07454

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: C07H 21/00(2006.01);C12Q 1/70(2006.01),1/68(2006.01);C12N 7/00(2006.01),7/01(2006.01),7/02(2006.01)
 USPC: 536/23.72;435/5,6,235.1,239
 According to International Patent Classification (IPC) or to both national classification and IPC

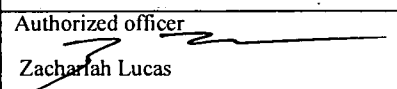
B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 536/23.72;435/5,6,235.1,239
 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y --- A	PIETCHMANN et al., "Chimeric Hepatitis C Virus Infectious in Cell Culture," paper presented at the 11th International Symposium on HCV and Related Viruses, Heidelberg Germany, 5 October 2004.	19, 20 ----- 1-18
Y --- A	LOHMANN et al., "Mutations in Hepatitis C Virus RNAs Conferring Cell Culture Adaptation," Journal of Virology, February 2001, Vol 75 No. 3, pages 1437-1449.	19 ----- 1-18, 20
Y --- A	LOHMANN et al. ""Replication of Subgenomic Hepatitis C Virus RNAs in a Hepatoma Cell Line," Science, July 1999, Vol 285, pages 110-113.	20 ----- 1-19
A	LEMM et al., "Replication-competent chimeric Hepatitis C Virus subgenomic replicons," Intervirology, 2005, Vol 48, pages 183-191.	1-20

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:		
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"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	"&"	document member of the same patent family

Date of the actual completion of the international search 13 May 2008 (13.05.2008)	Date of mailing of the international search report 13 JUN 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer  Zachariah Lucas Telephone No. 571-272-1600

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/07454

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of:

a. type of material

a sequence listing

table(s) related to the sequence listing

b. format of material

on paper

in electronic form

c. time of filing/furnishing

contained in the international application as filed

filed together with the international application in electronic form

furnished subsequently to this Authority for the purposes of search

2.

In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/07454

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Gu et al., "Replication Studies Using Genotype 1a Subgenomic Hepatitis C Virus Replicons," Journal of Virology, May 2003, Vol 77 No. 9, pages 5352-5359.	1-20
Y, T	LINDENBACH et al., "Complete Replication of Hepatitis C Virus in Cell Culture, Science, July 2005, Vol 309, pages 623-626.	1-20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/07454

Continuation of B. FIELDS SEARCHED Item 3:
WEST, PUBMED, STN