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24 July 2008

(54) Title: STABILIZED THERAPEUTIC SMALL HELICAL ANTIVIRAL PEPTIDES

(57) Abstract: Provided are constrained peptides that inhibit HIV assembly. Pharmaceutical compositions comprising the above peptides are also provided. Additionally provided are methods of inhibiting replication of a capsid-containing virus in a cell. Also provided are methods of treating a mammal infected with a capsid-containing virus. Further provided are methods of treating a mammal at risk for infection with a capsid-containing virus. Methods of making the above peptides are additionally provided, as are uses of the above peptides and pharmaceutical compositions.



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International application No

PCT/US07/2 1156

A CLASSIFICATION OF SUBJECT MATTER

IPC **A61K 38/08**(2006 01),**38/10**(2006 01),**38/16**(2006 01),**C07K 7/06**(2006 01),**7/08**(2006 01),**14/00**(2006 01)

USPC 514/2,13, 14, 15,530/326,327,328

According to International Patent Classification (IPC) or to both national classification and IPC

B	FIELDS SEARCHED
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Minimum documentation searched (classification system followed by classification symbols)

US 514/2

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)

Search on STN

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	STICHT et al A peptide inhibitor of HIV-I assembly in vitro Nature Structural & Molecular Biology August 2005, Vol 12, No 8, pages 671-677	1-24
A	TERNOIS et al The HIV- I capsid protein C-terminal domain in complex with a virus assembly inhibitor Nature Structural & Molecular Biology August 2005 Vol 12, No 8, pages 678-682	1-24

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Further documents are listed in the continuation of Box C

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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 an which is not considered to be of particular relevance		
"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 an
'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

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US07/21 156

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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**
because they relate to subject matter not required to be searched by this Authority, namely
- 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** 25-55
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6 4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 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 additional fees, this Authority did not invite payment of any additional fees
- 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 and, where applicable, the payment of a protest fee
 - ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation
 - ☐ No protest accompanied the payment of additional search fees