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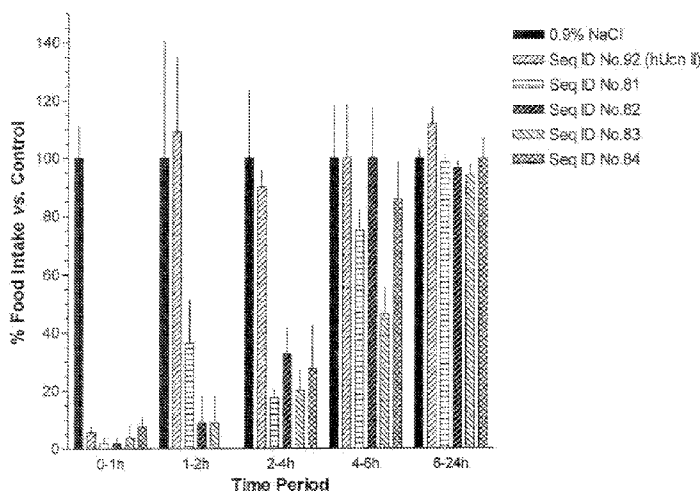
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[Continued on next page]

(54) Title: MODIFIED CORTICOTROPIN RELEASING FACTOR PEPTIDES AND USES THEREOF



(57) Abstract: The present invention relates to compounds comprising modified corticotrophin releasing factor peptide and specifically urocortin and urocortin-related peptides, modified derivatives thereof, and conjugates of such modified peptides and derivatives to serum components, preferably serum proteins or peptides. The compounds and conjugates of the invention comprise a reactive group, which is covalently attached to a modified peptide or derivative, optionally through a linking group. The present invention also provides methods for the covalent attachment of a modified peptide or derivative to a serum protein or peptide to form a conjugate of the invention. The conjugates of the invention preferably exhibit a longer *in vivo* circulating half-life compared to the corresponding unconjugated peptides. The conjugates of the invention also retain at least some of the biological activity of the unconjugated peptides, and preferably exhibit increased biological activity compared to the unconjugated peptides. The present invention also provides methods for the treatment and prevention of a disease or disorder comprising the administration of one or more of the compounds or conjugates of the invention to a subject in need of such treatment or prevention.



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## INTERNATIONAL SEARCH REPORT

International application No.  
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## A. CLASSIFICATION OF SUBJECT MATTER

IPC: *C07K 14/575* (2006.01) , *A61K 47/48* (2006.01) , *A61K 9/08* (2006.01) , *A61P 21/06* (2006.01) ,  
*A61P 25/00* (2006.01) , *A61P 3/04* (2006.01) (more IPCs on the last page)

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)

*C07K 14/575* (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Delphion, Pubmed, Scopus, Canadian Patent Database

Keywords: Urocortin, stresscopin, stresscopin-related peptide, "maleimido coupling with serum albumin to increase half-life"

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2005/012346 A1 (Bridon DP et al.) February 10, 2005 whole document	1-83
Y	Jette L. et al. Human growth hormone-releasing factor (hGRF) <sub>1-29</sub> albumin bioconjugates activate the GRF receptor on the anterior pituitary in rats: identification of CJC-1295 as a long-lasting GRF analog. <i>Endocrinology</i> . 2005, Vol. 146(7), pages 3050-3058, ISSN: 0952-5041 whole document	1-83
Y	Hsu SY and Hsueh AJW. Human stresscopin and stresscopin-related peptides are selective ligands for the type 2 corticotropin-releasing hormone receptor. <i>Nature Medicine</i> . 2001, Vol. 7 (5), pages 605-611, ISSN: 1078-8956 whole document	1-83
Y	Asakawa A et al. Urocortin reduces food intake and gastric emptying in lean <i>ob/ob</i> obese mice. <i>Gastroenterology</i> . 1999, Vol. 116(6), pages 1287-1292, ISSN: 0016-5085 whole document	1-83

 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 but 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	

Date of the actual completion of the international search

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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 6838274 B2 (Wylie WV Jr. et al.) January 4, 2005 whole document	1-83

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the 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.  Claim Nos. : 35, 36, 38-63 and 76-83

because they relate to subject matter not required to be searched by this Authority, namely :

Claims 35, 36, 38-63 and 76-83 encompass a method for treatment of the human or animal body by surgery or therapy, are not required to be searched nor is a written opinion required by this Authority (Rule 39.1 (iv) of the PCT). Regardless, this Authority has established a search report based on the alleged effect of the claimed subject matter defined in claims 35, 36, 38-63 and 76-

2.  Claim 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.  Claim Nos. :

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 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 claim 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 claim 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.

*A61P 9/00* (2006.01), *A61P 9/02* (2006.01), *C07K 1/107* (2006.01), *C07K 19/00* (2006.01),  
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
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