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(72) Inventors; and

(71) Applicants : **TESAURO, Diego** [IT/IT]; Via Marino Cotronei, 6, I-80128 Napoli (IT). **ACCARDO, Antonella** [IT/IT]; Via Ponte della Gatta, 74, I-80059 Torre del Greco (NA) (IT). **MORELLI, Giancarlo** [IT/IT]; Corso Vittorio Emanuele, 491, I-80135 Napoli (IT). **PEDONE, Carlo** [IT/IT]; Piazzetta Ascensione, 4, I-80121 Napoli (IT). **FALCIANI, Chiara** [IT/IT]; Via Ugo La Malfa, 1, I-53100 Siena (IT). **PINI, Alessandro** [IT/IT]; Strada del Mandorlo, 11, I-53100 Siena (IT). **BRACCI, Luisa** [IT/IT]; Via Banchi di Sopra, 48, I-53100 Siena (IT).

(74) Agents: **MINOJA, Fabrizio** et al.; Bianchetti Bracco Minoja S.r.l., Via Plinio, 63, I-20129 Milano (IT).

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Published:

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19 April 2012

(54) Title: SUPRAMOLECULAR AGGREGATES AS DRUG CARRIERS ON CELL EXPRESSING RECEPTORS FOR BRANCHED NEUROTENSIN

(57) Abstract: The present invention relates to supramolecular aggregates (liposomes, vesicles, or micelles) for target selective drug delivery; more specifically it relates to supramolecular aggregates derivatized with Neurotensin peptide in a branched form and filled, in their inner compartment or in the phospholipid bilayer, with a pharmaceutical active principle such as a cytotoxic chemotherapeutic drug. The aggregates are selectively driven by the exposed branched bioactive peptides to specific receptors overexpressed in malignant cells.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2011/001731A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K47/48 A61P35/00
ADD.

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)
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)

EPO-Internal, BIOSIS, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2010/052243 A2 (BRACCI LUISA [IT]; PINI ALESSANDRO [IT]; FALCIANI CHIARA [IT]; MENICHE) 14 May 2010 (2010-05-14) Claims	1-14
A	WO 2007/093373 A2 (UNIV SIENA [IT]; BRACCI LUISA [IT]; FALCIANI CHIARA [IT]; PINI ALESSAN) 23 August 2007 (2007-08-23) Claims	1-14
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 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

"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

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Bettio, Andrea

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2011/001731

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BRACCI LUISA ET AL: "Synthetic peptides in the form of dendrimers become resistant to protease activity", JOURNAL OF BIOLOGICAL CHEMISTRY, THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, INC, US, vol. 278, no. 47, 21 November 2003 (2003-11-21), pages 46590-46595, XP002461778, ISSN: 0021-9258, DOI: 10.1074/JBC.M308615200 abstract</p> <p style="text-align: center;">-----</p>	1-14
A	<p>HULTSCH C ET AL: "Synthesis and evaluation of novel multimeric neurotensin(8-13) analogs", BIOORGANIC & MEDICINAL CHEMISTRY, PERGAMON, GB, vol. 14, no. 17, 1 September 2006 (2006-09-01), pages 5913-5920, XP025133493, ISSN: 0968-0896, DOI: 10.1016/J.BMC.2006.05.024 [retrieved on 2006-09-01] abstract</p> <p style="text-align: center;">-----</p>	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2011/001731

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2010052243	A2	14-05-2010	
		CN 102271713 A	07-12-2011
		EP 2362784 A2	07-09-2011
		US 2011319339 A1	29-12-2011
		WO 2010052243 A2	14-05-2010

WO 2007093373	A2	23-08-2007	
		EP 1991561 A2	19-11-2008
		WO 2007093373 A2	23-08-2007

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2011/001731

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 and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. (means)
 - on paper
 - in electronic form
 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purpose 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: