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AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Published:

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— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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WO 2012/112230 A3

(54) Title: COMPOSITIONS AND MULTI-STEP METHODS OF USING THE SAME FOR THE TREATMENT OF JELLYFISH STINGS

(57) Abstract: Embodiments of the invention relate to a composition containing zinc and copper and methods of using the same in treatment of exposure to a pore-forming toxin (PFT) in a subject or membrane perturbant (MP).

**A. CLASSIFICATION OF SUBJECT MATTER***A61K 33/30(2006.01)i, A61K 33/34(2006.01)i, A61K 33/24(2006.01)i, A61P 29/00(2006.01)i*

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 33/30; C22C 38/00; A61K 9/16; A61K 33/40; A61K 31/4172; A61K 33/34

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)

eKOMPASS(KIPO internal) &amp; Keywords: zinc, copper, membrane perturbation, magnesium, lactulose, urea, pore-forming toxin, cnidarian, jelly fish, psoriasis, insect

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2004-0170701 A1 (JOHN CARTER) 02 September 2004 See abstract; example 10; claims 2, 8, 9, 12, and 15.	1-4, 8, 9 5-7
A	US 2008-0138417 A1 (CHARLES GRIGSBY) 12 June 2008 See abstract; paragraphs [0011], [0015], [0016], [0023], [0029] - [0031]; claims 1, 3, and 4.	1-9
A	WO 2006-133134 A2 (PREZACOR, INC.) 14 December 2006 See claims 9, 30, 32, 85, and 88.	1-9

 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 application or patent 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 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

21 AUGUST 2012 (21.08.2012)

Date of mailing of the international search report

**22 AUGUST 2012 (22.08.2012)**

Name and mailing address of the ISA/KR

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**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.: 10  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claim 10 pertains to a method for treatment of the human body by therapy, and thus relates to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
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.: 10, 11  
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 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 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.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/000095**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004-0170701 A1	02.09.2004	EP 1372676 A1 GB 0108470 D0 GB 2374008 A GB 2374008 B WO 02-080942 A1	02.01.2004 23.05.2001 09.10.2002 16.03.2005 17.10.2002
US 2008-0138417 A1	12.06.2008	None	
WO 2006-133134 A2	14.12.2006	AU 2006-255166 A1 CA 2610460 A1 CN 101218092 A0 EP 1904297 A2 JP 2008-545758 A KR 10-2008-0031252 A US 2011-0117179 A1	14.12.2006 14.12.2006 09.07.2008 02.04.2008 18.12.2008 08.04.2008 19.05.2011