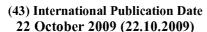
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#### Published:

- with international search report (Art. 21(3))
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(57) Abstract: Described herein are tricyclic macrolactones. The macrolactones have a high binding affinity for PKC. The compounds described herein can be used in a number of therapeutic applications including cancer and Alzheimer's prevention and treatment. The compounds described herein can also treat memory loss. Also described herein are methods for producing macrolactones. The methods permit the high-yield synthesis of macrolactones in fewer steps and with a higher degree of substitution and specificity.

### INTERNATIONAL SEARCH REPORT

International application No PCT/US2009/040747

A. CLASSII	CO7D493/22 CO7F7/08 A61K31/3	65 A61P35/00 A6	51P25/28		
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) C07D					
		the state of the s	,		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched					
Electronic da	ata base consulted during the international search (name of data bas	se and, where practical, search terms used	d)		
EPO-Internal, BEILSTEIN Data					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.		
X	WENDER P. A. ET AL.: "The design, computer modeling, solution structure, and biological evaluation of synthetic analogs of bryostatin 1" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, vol. 95, 1998, pages 6624-6629, XP002542068 page 6626, column 1 entries 2, 4-9, 11-12, 14 offigure 1		8-14,		
X Furt	ner documents are listed in the continuation of Box C.	See patent family annex.			
ا لنا					
"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		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	Date of mailing of the international sea	arch report		
1	5 September 2009	20/05/2010			
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 Miniejew, Catherine			

# INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/040747

C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
		Delevent to alrim No.
Category* P, X	KECK, GARY E. ET AL: "Convergent Assembly	1,2,5,
	of Highly Potent Analogues of Bryostatin 1 via Pyran Annulation: Bryostatin Look-Alikes That Mimic Phorbol Ester Function"	8-13, 19-24, 26-35
	JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 130(21), 6660-6661 CODEN: JACSAT; ISSN: 0002-7863, 2008, XP002542069 compounds 1-13	
	<del></del>	

#### INTERNATIONAL SEARCH REPORT

International application No. PCT/US2009/040747

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:			
Claims Nos.:     because they relate to subject matter not required to be searched by this Authority, namely:			
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.: 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:			
see additional sheet.			
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 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 claims Nos.:			
A. 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.:  See annex			
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.			

### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

- 1. claims: 1-6(part), 8-14(part), 19-22(part), 23-24, 25-35(part) subject-matter related to compounds wherein X3 = hydrogen
- 2. claims: 1-6(part), 7, 8-14(part), 15-18, 19-22(part), 25-35(part) subject-matter related to compounds wherein X3 = hydroxyl
- 3. claims: 1-6(part), 8-14(part), 19-21(part), 25-35(part) subject-matter related to compounds wherein X3 = alkyl
- 4. claims: 1-6(part), 8-14(part), 19-21(part), 25-35(part)
   subject-matter related to compounds wherein X3 = alkoxy
   group
- 5. claims: 1-6(part), 8-14(part), 19-21(part), 25-35(part) subject-matter related to compounds wherein X3 = halide