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(54) Title: SPLEEN TYROSINE KINASE AND BRAIN CANCERS

(57) Abstract: The present invention relates to a method for treating cancer, for instance brain tumors, in a subject by inhibiting spleen tyrosine kinase (Syk) by administering to said subject a therapeutically effective amount of a modulator of Syk, for example a specific antibody or a siRNA. The present invention also encompasses methods of diagnosing cancer by measuring levels of Syk, as well as method of targeted therapy using anti-Syk antibodies conjugated to therapeutic agents.



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## INTERNATIONAL SEARCH REPORT

International application No

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## A. CLASSIFICATION OF SUBJECT MATTER

INV. C07K16/22 C07K16/30  
 ADD. A61K38/00

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

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, Sequence Search

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                                                      | Relevant to claim No. |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X         | HUSSAIN S FARZANA ET AL: "A novel small molecule inhibitor of signal transducers and activators of transcription 3 reverses immune tolerance in malignant glioma patients",<br>CANCER RESEARCH,<br>vol. 67, no. 20, October 2007 (2007-10),<br>pages 9630-9636, XP002560380,<br>ISSN: 0008-5472<br>cited in the application<br>abstract | 1-11,<br>13-15        |
| X         | -----<br>WO 2005/103255 A1 (US GOV HEALTH & HUMAN<br>SERV [US]; WANG JI MING [US]; ZHOU YE<br>[CN]; LE Y) 3 November 2005 (2005-11-03)<br>page 4; figures 11,12; example 13<br>-----                                                                                                                                                    | 1,2,6,7               |



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents :

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"E" earlier document but published on or after the international filing date

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"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

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"&" 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/EP2010/065367

### 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)  

|                                     |                    |
|-------------------------------------|--------------------|
| <input type="checkbox"/>            | on paper           |
| <input checked="" type="checkbox"/> | in electronic form |
  - b. (time)  

|                                     |                                                                |
|-------------------------------------|----------------------------------------------------------------|
| <input checked="" type="checkbox"/> | in the international application as filed                      |
| <input type="checkbox"/>            | together with the international application in electronic form |
| <input type="checkbox"/>            | 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:

## INTERNATIONAL SEARCH REPORT

### Information on patent family members

International application No

PCT/EP2010/065367

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| WO 2005103255                             | A1                  | 03-11-2005                 | NONE                |
| -----                                     |                     |                            |                     |