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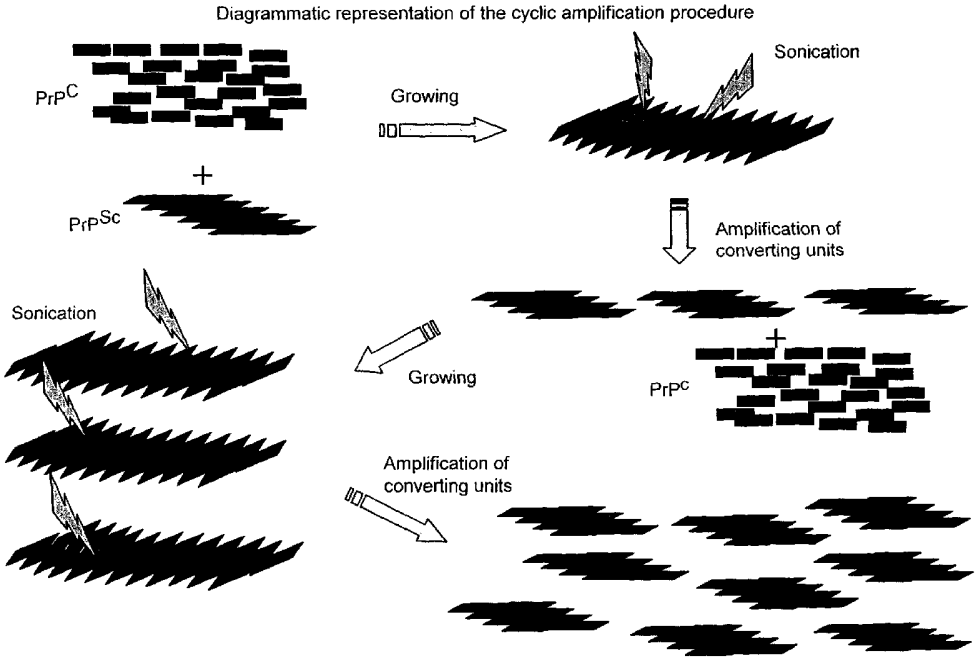
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Published:

— *with international search report*

[Continued on next page]

(54) Title: EARLY DIAGNOSIS OF CONFORMATIONAL DISEASES



(57) Abstract: A method for the diagnosis or detection of conformational diseases by assaying for a marker (the pathogenic conformer) of such diseases in a sample is described, which method comprises a cyclic amplification system to increase the levels of the pathogenic conformer which causes such diseases. In particular, such transmissible conformational diseases may be prion encephalopathies. Assays, diagnostic kits and apparatus based on such methods are also disclosed.

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24 October 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 01/02584

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N33/68

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)
IPC 7 G01N 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)
BIOSIS, EPO-Internal, WPI Data, MEDLINE, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CAUGHEY B ET AL: "Aggregates of scrapie-associated prion protein induce the cell-free conversion of protease-sensitive prion protein to the protease-resistant state." CHEMISTRY & BIOLOGY. ENGLAND DEC 1995, vol. 2, no. 12, December 1995 (1995-12), pages 807-817, XP008004297 ISSN: 1074-5521 page 808, column 1, line 26 -column 2, line 33 figure 2 page 815, column 2, line 35 - line 56 ---	1,2,6-8, 10,11
X	EP 0 391 714 A (BRIGHAM & WOMENS HOSPITAL) 10 October 1990 (1990-10-10) claims 17,21 ---	13
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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 June 2002	31/07/2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Gunster, M

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Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 16834 A (COLLINGE JOHN ;IMPERIAL COLLEGE (GB)) 23 April 1998 (1998-04-23) claim 11	13
X	WO 97 16728 A (UNIV CALIFORNIA) 9 May 1997 (1997-05-09) page 28, line 30 -page 29, line 6; claims 14,21,27,29	15
X	US 5 616 871 A (KENNEY JAMES W) 1 April 1997 (1997-04-01) figure 1	21
P,X	WO 01 00235 A (CAPRION PHARMACEUTICALS INC ;UNIV MCGILL (CA); CASHMAN NEIL R (CA)) 4 January 2001 (2001-01-04) claim 66	13
E	WO 01 46714 A (MISONIX INC) 28 June 2001 (2001-06-28) the whole document	21
A	SABORIO GABRIELA P ET AL: "Cell-lysate conversion of prion protein into its protease-resistant isoform suggests the participation of a cellular chaperone." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 258, no. 2, 10 May 1999 (1999-05-10), pages 470-475, XP002156200 ISSN: 0006-291X the whole document	1-22
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	KOCISKO DAVID A ET AL: "Cell-free formation of protease-resistant prion protein." NATURE (LONDON), vol. 370, no. 6489, 1994, pages 471-474, XP002156203 ISSN: 0028-0836 cited in the application the whole document ---	1-22
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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.
L	DATABASE MEDLINE 'Online! November 2001 (2001-11) MERLINI G ET AL: "Protein aggregation." Database accession no. NLM11831622 XP002203445 abstract & CLINICAL CHEMISTRY AND LABORATORY MEDICINE: CCLM / FESCC. GERMANY NOV 2001, vol. 39, no. 11, November 2001 (2001-11), pages 1065-1075, ISSN: 1434-6621	1-14,16
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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.
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 01/02584

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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. [X] Claims Nos.: 18 and 20
because they relate to subject matter not required to be searched by this Authority, namely:

Rule 39.1(iv) PCT - Diagnostic method practised on the human or animal body

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.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 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.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/GB 01/02584

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