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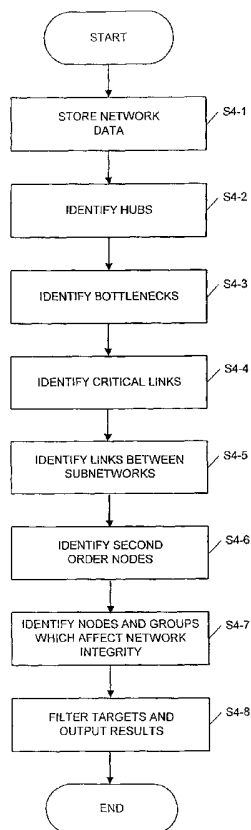
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR IDENTIFYING COMPONENTS OF A NETWORK HAVING HIGH IMPORTANCE FOR NETWORK INTEGRITY



(57) Abstract: A computer system (2) is provided which is arranged to receive network data (1) identifying nodes and links between nodes. The computer system (2) processes the input network data (1) to utilise the network topology to identify nodes and links having high importance for network integrity. A report (4) identify the critical components can then be output. Where the network data (1) is proteome data for an organism, the computer system (2) will identify critical proteins which may be suitable as targets for drug therapies.

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Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
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GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

national Application No

T/GB 03/04678

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F19/00 H04Q3/00 H04L12/26		
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 G06F H04Q H04L		
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		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1 158 447 A (GMD-FORSCHUNGSZENTRUM INFORMATIONSTECHNIK GMBH) 28 November 2001 (2001-11-28) the whole document	32-44, 53,61, 72,74-76
Y	EP 0 887 749 A (GMD-FORSCHUNGSZENTRUM INFORMATIONSTECHNIK GMBH) 30 December 1998 (1998-12-30) the whole document	32-44, 53,61, 72,74-76
A	A.ZIEN, R. KÜFFNER, T.MEVISSSEN, R. ZIMMER, T.LENGAUER: "identification of drug target proteins" ERCIM NEWS, October 2000 (2000-10), XP002271388 INTERNET the whole document	32-44, 53,61, 72,74-76
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		<input checked="" type="checkbox"/> Patent family members are listed in 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 <p style="text-align: center; font-size: 1.2em;">25 May 2004</p>	Date of mailing of the international search report <p style="text-align: center; font-size: 1.2em;">03.06.04</p>	
Name and mailing address of the ISA 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	Authorized officer <p style="text-align: center; font-size: 1.2em;">Jaskolski, J</p>	

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national Application No

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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.
X	EP 0 637 153 A (IBM) 1 February 1995 (1995-02-01)	45, 53, 61
A	page 12, line 11 - page 14, line 25; figures 0,4-8,10,11 -----	46-52, 72,74-76
X	US 5 748 844 A (MARKS JOSEPH W) 5 May 1998 (1998-05-05) the whole document -----	45, 53, 61
X	US 6 437 804 B1 (DEV ROGER ET AL) 20 August 2002 (2002-08-20) the whole document -----	45, 53, 61
A	EP 0 652 665 A (AT & T CORP) 10 May 1995 (1995-05-10) the whole document -----	32-61, 72,74-76
A	EP 0 507 110 A (CHRYSLER CORP) 7 October 1992 (1992-10-07) the whole document -----	45-61, 72,74-76

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/04678

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. Claims Nos.: 1-31, 62-71, 73
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
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:

see additional sheet

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 1-31,62-71,73

A meaningful search is not possible on the basis of all claims because claims 1 to 31 and 62 to 70 are directed to methods for performing mental acts - Rule 39.1(iii) PCT, claim 71 is directed to a method for treatment of the human or animal body by therapy - Rule 39.1(iv) PCT, claim 73 is directed to presentation of information - Rule 39.1(v) PCT.

Claims 74 to 76 have been searched to the extent of limitations imposed by claim 72, but not claim 73.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/04678

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