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OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
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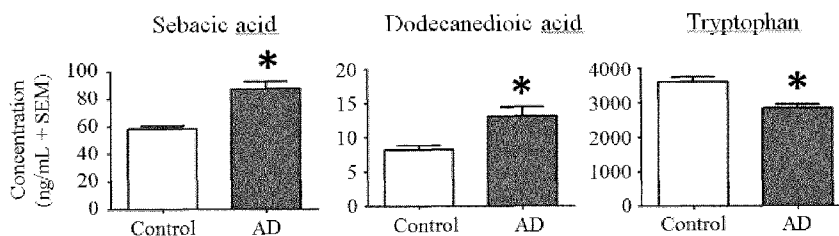


FIGURE 3

(57) Abstract: The present invention relates to methods of detecting Alzheimer's disease using novel biomarkers. The novel biomarkers can be measured in biological body fluids or easily available extracts of biopsies. The present invention also relates to methods for identification of the stage of the disease, assessing the responsiveness to the treatment and the efficacy of treatment in subjects having Alzheimer's disease.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER INV. G01N33/68 ADD.		
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) G01N		
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) EPO-Internal, BIOSIS, CHEM ABS Data, EMBASE, PAJ, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010/124756 A1 (R. SANDIP & A. WYSS-CORAY[US]) 20 May 2010 (2010-05-20) cited in the application claims; tables 1-20B -----	1-16
Y	WO 2012/168561 A1 (TEKNOLOGIAN TUTKIMUSKESKUS VTT [FI]; UNIV EASTERN FINLAND [FI]) 13 December 2012 (2012-12-13) cited in the application claim 1; figure 2 ----- -/--	1-16
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 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;">7 April 2015</p>	Date of mailing of the international search report <p style="text-align: center; font-size: 1.2em;">13/04/2015</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, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center; font-size: 1.2em;">Vadot-Van Geldre, E</p>	

INTERNATIONAL SEARCH REPORT

International 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.
A	JAMES D. DOECKE: "Blood-Based Protein Biomarkers for Diagnosis of Alzheimer Disease", ARCHIVES OF NEUROLOGY (AMERICAN MEDICAL ASSOCIATION), vol. 69, no. 10, 1 October 2012 (2012-10-01), page 1318, XP055094705, Chicago IL USA ISSN: 0003-9942, DOI: 10.1001/archneurol.2012.1282 table 2	1-16
A	MUTH A ET AL: "Simultaneous enantioselective analysis of chiral urinary metabolites in patients with Zellweger syndrome", JOURNAL OF CHROMATOGRAPHY B: BIOMEDICAL SCIENCES & APPLICATIONS, ELSEVIER, AMSTERDAM, NL, vol. 792, no. 2, 25 July 2003 (2003-07-25), pages 269-277, XP004434982, ISSN: 1570-0232, DOI: 10.1016/S1570-0232(03)00285-X abstract; table 1	1-16
A	EP 2 085 082 A1 (NUTROMNIA S R L [IT]) 5 August 2009 (2009-08-05) paragraphs [0053] - [0054]; claim 9	1-16
A	WO 2013/059234 A1 (METABOLON INC [US]) 25 April 2013 (2013-04-25) paragraphs [0008] - [0009]; claim 1; example 5; table 14	1-16
Y	EUGENIA TRUSHINA ET AL: "Identification of Altered Metabolic Pathways in Plasma and CSF in Mild Cognitive Impairment and Alzheimer's Disease Using Metabolomics", PLOS ONE, vol. 8, no. 5, 20 May 2013 (2013-05-20), page e63644, XP055176105, DOI: 10.1371/journal.pone.0063644 abstract	1-8, 10-16
A	pg 6, col 1, para 1 and 3 ; pg 7, col 2, l 1-5; figures 4,7	9
A	WO 2007/064784 A1 (UNIV MARYLAND [US]; SCHWARCZ ROBERT [US]; GUIDETTI PAOLO [US]; PELLICC) 7 June 2007 (2007-06-07) claims 8,14	1-16
Y	WO 2013/070839 A1 (METABOLON INC [US]) 16 May 2013 (2013-05-16) claims 1,10	1-16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2014/066414

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.:
because they relate to subject matter not required to be searched by this Authority, namely:

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 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

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 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.:

1-16(partially)
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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-16(partially)

Methods to diagnose the presence, risk, subtype, progression or severity of AD, assess responsiveness to treatment for AD and monitor the effect of treatment for AD using biological fluid based sebacic acid as a biomarker.

2-31. claims: 1-16(partially)

As above wherein the biomarker is azelaic acid (invention 2), dodecanedioic acid (invention 3) up to sulfobenzylalcohol (invention 31).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2014/066414

Patent document cited in search report	A1	Publication date	Patent family member(s)	Publication date
US 2010124756	A1	20-05-2010	NONE	

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			JP 2014521928 A	28-08-2014
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			WO 2013070839 A1	16-05-2013
