

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	METE CIVELEK ET AL: "Chronic Endoplasmic Reticulum Stress Activates Unfolded Protein Response in Arterial Endothelium in Regions of Susceptibility to Atherosclerosis", CIRCULATION RESEARCH., vol. 105, no. 5, 28 August 2009 (2009-08-28), pages 453-461, XP055451755, US ISSN: 0009-7330, DOI: 10.1161/CIRCRESAHA.109.203711 * the whole document, in particular p. 455, right-hand column, 2nd paragraph, Table 2 and Table S3 *	1-7,9-12	INV. G01N33/53 C12Q1/25 C12Q1/68 G01N33/573
A	----- RAMASWAMY S ET AL: "A molecular signature of metastasis in primary solid tumors", NATURE GENETICS, NATURE PUBLISHING GROUP, NEW YORK, US, vol. 33, no. 1, 1 January 2003 (2003-01-01), pages 49-54, XP002301651, ISSN: 1061-4036, DOI: 10.1038/NG1060 -----	1-12	TECHNICAL FIELDS SEARCHED (IPC) G01N C12Q
A	----- NIKKI P. LEE ET AL: "Prognostic significance and therapeutic potential of eukaryotic translation initiation factor 5A (eIF5A) in hepatocellular carcinoma", INTERNATIONAL JOURNAL OF CANCER, vol. 127, 1 January 2010 (2010-01-01), pages 968-976, XP055165907, ISSN: 0020-7136, DOI: 10.1002/ijc.25100 * figure 1b * ----- -/--	1-12	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search		Date of completion of the search	Examiner
Munich		17 May 2018	Bassias, Ioannis
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FELIX H. SHEK ET AL: "Implications of the Use of Eukaryotic Translation Initiation Factor 5A (eIF5A) for Prognosis and Treatment of Hepatocellular Carcinoma", INTERNATIONAL JOURNAL OF HEPATOLOGY, vol. 2012, 1 January 2012 (2012-01-01), pages 1-6, XP055451923, US ISSN: 2090-3448, DOI: 10.1155/2012/760928 -----	1-12	
A	AU 2013 206 284 A1 (SENECO TECHNOLOGIES INC) 4 July 2013 (2013-07-04) * the whole document, in particular p. 19, 1.13-16 *	1-12	
A	FENG-WEI WANG ET AL: "Roles of Eukaryotic Initiation Factor 5A2 in Human Cancer", INTERNATIONAL JOURNAL OF BIOLOGICAL SCIENCES, vol. 9, no. 10, 1 January 2013 (2013-01-01), pages 1013-1020, XP055342005, Australia ISSN: 1449-2288, DOI: 10.7150/ijbs.7191 -----	1-12	
A	EP 2 319 924 A1 (FUJIKURA KASEI KK [JP]; UNIV CHIBA NAT UNIV CORP [JP]) 11 May 2011 (2011-05-11) ----- -/--	1-7,9-12	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search <b>Munich</b>		Date of completion of the search <b>17 May 2018</b>	Examiner <b>Bassias, Ioannis</b>
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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EPO FORM 1503 03 82 (P04C04)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
T	Nakamura R Rika ET AL: "An Anti-Deoxyhypusine Synthase Antibody as a Marker of Atherosclerosis- Related Cerebral Infarction, Myocardial Infarction, Diabetes Mellitus, and Chronic Kidney Disease", SM Atherosclerosis Journal, vol. 1, no. 1 27 March 2017 (2017-03-27), pages 1-9, XP055451757, Retrieved from the Internet: URL:http://smjournals.com/atherosclerosis/download.php?file=fulltext/smaj-v1-1001.pdf [retrieved on 2018-02-15]		
X	XIE ET AL: "Overexpression of EIF-5A2 is associated with metastasis of human colorectal carcinoma", HUMAN PATHOLOGY, SAUNDERS, PHILADELPHIA, PA, US, vol. 39, no. 1, 18 October 2007 (2007-10-18), pages 80-86, XP022383146, ISSN: 0046-8177, DOI: 10.1016/J.HUMPATH.2007.05.011 * the whole document, in particular the "Summary" and p. 86, left-hand column, first paragraph *	1-12	TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search <b>Munich</b>		Date of completion of the search <b>17 May 2018</b>	Examiner <b>Bassias, Ioannis</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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EPO FORM 1503 03 82 (P04C04)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	QIAO-JIE HE ET AL: "Recurrent genetic alterations in 26 colorectal carcinomas and 21 adenomas from Chinese patients", CANCER GENETICS AND CYTOGENETICS., vol. 144, no. 2, 1 July 2003 (2003-07-01), pages 112-118, XP055451929, US ISSN: 0165-4608, DOI: 10.1016/S0165-4608(02)00959-7 -----	1-12	TECHNICAL FIELDS SEARCHED (IPC)
A	TAYLOR ET AL: "Eukaryotic translation initiation factor 5A induces apoptosis in colon cancer cells and associates with the nucleus in response to tumour necrosis factor @a signalling", EXPERIMENTAL CELL RESEARCH, ELSEVIER, AMSTERDAM, NL, vol. 313, no. 3, 3 February 2007 (2007-02-03), pages 437-449, XP005866970, ISSN: 0014-4827, DOI: 10.1016/J.YEXCR.2006.09.030 -----	1-12	
A	TAKADA HISASHI ET AL: "Screening of DNA copy-number aberrations in gastric cancer cell lines by array-based comparative genomic hybridization", CANCER SCIENCE, JAPANESE CANCER ASSOCIATION, TOKYO, JP, vol. 96, no. 2, 1 February 2005 (2005-02-01), pages 100-110, XP002452931, ISSN: 1347-9032, DOI: 10.1111/J.1349-7006.2005.00016.X ----- -/--	1-12	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search <b>Munich</b>		Date of completion of the search <b>17 May 2018</b>	Examiner <b>Bassias, Ioannis</b>
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EPO FORM 1503 03 82 (P04C04)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	GUAN X Y ET AL: "Recurrent chromosome changes in 62 primary gastric carcinomas detected by comparative genomic hybridization", CANCER GENETICS AND CYTOGENETICS, ELSEVIER SCIENCE PUBLISHING, NEW YORK, NY, US, vol. 123, no. 1, 1 November 2000 (2000-11-01), pages 27-34, XP027290956, ISSN: 0165-4608 [retrieved on 2000-11-01]	1-12	
A	SVETLANA D. PACK ET AL: "Molecular cytogenetic fingerprinting of esophageal squamous cell carcinoma by comparative genomic hybridization reveals a consistent pattern of chromosomal alterations", GENES, CHROMOSOMES AND CANCER, vol. 25, no. 2, 1 June 1999 (1999-06-01), pages 160-168, XP055053918, ISSN: 1045-2257, DOI: 10.1002/(SICI)1098-2264(199906)25:2<160::AID-GCC12>3.0.CO;2-U	1-12	
A	YEN CHUEH-CHUAN ET AL: "Copy number changes of target genes in chromosome 3q25.3-qter of esophageal squamous cell carcinoma: TP63 is amplified in early carcinogenesis but down-regulated as disease progressed", WORLD JOURNAL OF GASTROENTEROLOGY, WJG PRESS, CN, vol. 11, no. 9, 7 March 2005 (2005-03-07), pages 1267-1272, XP002479438, ISSN: 1007-9327	1-12	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
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EPO FORM 1503 03 82 (P04C04)

### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims:

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-7, 9-12(all partially)

A method for determining arteriosclerosis comprising detecting the expression of a deoxyhypusine synthase gene in a test sample, obtained from a test subject, and determining arteriosclerosis on the basis of an increase in the gene expression as an index in said test subject, an arteriosclerosis detection kit, use of said arteriosclerosis detection kit for detecting arteriosclerosis, and a method for using an immobilized plate for for detecting arteriosclerosis.

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2. claims: 8(completely); 1-7, 9-12(partially)

A method for determining digestive system cancer comprising detecting the expression of a deoxyhypusine synthase gene in a test sample, obtained from a test subject, and determining digestive system cancer on the basis of an increase in the gene expression as an index in said test subject, a digestive system cancer detection kit, use of said digestive system cancer detection kit for detecting digestive system cancer, and a method for using an immobilized plate for for detecting digestive system cancer.

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 15 85 7813

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-05-2018

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
AU 2013206284	A1	04-07-2013	NONE
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EP 2319924	A1	11-05-2011	CN 102099470 A 15-06-2011
			EP 2319924 A1 11-05-2011
			EP 3021121 A1 18-05-2016
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			JP W02010018870 A1 26-01-2012
			KR 20110027793 A 16-03-2011
			US 2011287955 A1 24-11-2011
			US 2013183691 A1 18-07-2013
			WO 2010018870 A1 18-02-2010
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专利名称(译)	以脱氧酪氨酸合成酶基因为指示剂的动脉硬化和癌症检测方法		
公开(公告)号	<a href="#">EP3217175A4</a>	公开(公告)日	2018-06-27
申请号	EP2015857813	申请日	2015-11-05
[标]申请(专利权)人(译)	藤仓化成株式会社		
申请(专利权)人(译)	FUJIKURA KASEI CO., LTD. 国立大学法人千叶大学		
当前申请(专利权)人(译)	FUJIKURA KASEI CO., LTD. 国立大学法人千叶大学		
[标]发明人	NAKAMURA RIKA KURODA HIDEYUKI TOMIYOSHI GO HIWASA TAKAKI TAKIGUCHI MASAKI SAEKI NAOKATSU		
发明人	NAKAMURA RIKA KURODA HIDEYUKI TOMIYOSHI GO HIWASA TAKAKI TAKIGUCHI MASAKI SAEKI NAOKATSU		
IPC分类号	G01N33/53 C12Q1/25 C12Q1/68 G01N33/573		
CPC分类号	C12Q1/25 C12Q1/68 G01N33/53 G01N33/573 C12N9/1085 C12Q1/6883 C12Q1/6886 C12Q2600/158 C12Y205/01046 G01N33/57446 G01N33/6893 G01N2333/91165 G01N2800/323		
代理机构(译)	KRAUSS, JAN		
优先权	2014226847 2014-11-07 JP		
其他公开文献	EP3217175A1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

本发明人惊奇地发现脱氧酪氨酸合酶 ( DHPS ) 基因, 其先前报道与前列腺癌和宫颈癌相关, 对动脉硬化或消化系统癌症具有高度响应性, 因此该基因可用作动脉硬化的理想标志物。或消化系统癌症。在此发现的基础上完成了本发明。具体地, 本发明提供了用于确定动脉硬化或消化系统癌症的方法, 该方法包括检测测试样品 ( 优选血液样品 ) 中脱氧酪氨酸合成酶基因的表达, 并测定测试受试者的动脉硬化或消化系统癌症。基于基因表达的增加作为指标, 已经获得了测试样品。

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to:	CLASSIFICATION OF THE APPLICATION (IPC)
X	METE CIVELEK ET AL: "Chronic Endoplasmic Reticulum Stress Activates Upregulated Protein Response in Arterial Endothelium in Regions of Susceptibility to Atherosclerosis" CIRCULATION RESEARCH, vol. 106, no. 5, 28 August 2009 (2009-08-28), pages 453-461, XP055451755, DOI: 10.1161/CIRCRESAHA.109.203711	1-7,9-12	G01N33/53 C12Q1/25 C12Q1/68 G01N33/573
A	RAMASWAMY S ET AL: "A molecular signature of metastasis in primary solid tumors" NATURE GENETICS, NATURE PUBLISHING GROUP, NEW YORK, US, vol. 33, no. 1, 1 January 2003 (2003-01-01), pages 49-54, XP002301551, ISSN: 1061-4036, DOI: 10.1038/NG1060	1-12	TECHNICAL FIELD: G01N C12Q
A	NIKKI P. LEE ET AL: "Prognostic significance and therapeutic potential of epigenetic methylation initiation factor 2A (IFI2A) in hepatocellular carcinoma" INTERNATIONAL JOURNAL OF CANCER, vol. 127, 1 January 2010 (2010-01-01), pages 968-976, XP05510590, ISSN: 0020-7136, DOI: 10.1002/ijc.25100	1-12	
The supplementary search report has been based on the last set of search results available at the start of the search.			
Munich		17 May 2018	Bassias, Ioannis