



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	CAMERON E E ET AL: "Synergy of demethylation and histone deacetylase inhibition in the re-expression of gene silenced in cancer" NATURE GENETICS, NEW YORK, NY, US, vol. 21, no. 1, January 1999 (1999-01), pages 103-107, XP002955246 ISSN: 1061-4036 * the whole document *	1-18	INV. C12Q1/68 C12P19/34 C07H21/04
A	WO 01/77377 A2 (EPIGENOMICS AG [DE]; OLEK ALEXANDER [DE]; PIEPENBROCK CHRISTIAN [DE];) 18 October 2001 (2001-10-18) * the whole document *	1-18	
A	MARIADASON J.M. ET AL.: "Genetic reprogramming in pathways of colonic cell maturation induced by short chain fatty acids: Comparison with trichostatin A, sulindac, and curcumin and implications for chemoprevention of colon cancer" CANCER RESEARCH, vol. 60, no. 16, 15 August 2000 (2000-08-15), pages 4561-4572, XP002438262 * the whole document *	1-18	TECHNICAL FIELDS SEARCHED (IPC) C12Q
A	SONG S.H. ET AL: "Transcriptional silencing of Cyclooxygenase-2 by hyper-methylation of the 5' CpG island in human gastric carcinoma cells" CANCER RESEARCH, vol. 61, no. 11, 1 June 2001 (2001-06-01), pages 4628-4635, XP002438263 * the whole document *	1-18	
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 The Hague		Date of completion of the search 20 June 2007	Examiner Santagati, Fabio
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			



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims 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 the first ten claims.

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 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 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 European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-8 completely and 9-18 partially



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: 1-8 completely and 9-18 partially

A method of identifying at least one methylation silenced gene associated with at least one cancer, comprising: a) contacting an array of nucleotide sequences representative of a genome with nucleic acid subtraction products, which comprise nucleic acid molecules corresponding to RNA expressed in cancer cells contacted with a demethylating agent but not nucleic acid molecules corresponding to RNA expressed in normal cells corresponding to the cancer cells, under conditions suitable for selective hybridization of nucleic acid subtraction products to complementary nucleotide sequences of the array ; and b) detecting selective hybridization of nucleic acid subtraction products to a subpopulation of nucleotide sequences of the array.

2. claims: 9-18 partially

A method of identifying at least one deacetylation silenced gene associated with at least one cancer, comprising: a) contacting an array of nucleotide sequences representative of a genome with nucleic acid subtraction products, which comprise nucleic acid molecules corresponding to RNA expressed in cancer cells contacted with at least one agent that reactivates expression of deacetylation silenced genes but not RNA expressed in normal cells corresponding to the cancer cells, under conditions suitable for selective hybridization of nucleic acid subtraction products to complementary nucleotide sequences of the array; and b) detecting selective hybridization of nucleic acid subtraction products to a subpopulation of nucleotide sequences of the array.

3. claims: 19-62

A method for identifying a cell that exhibits or is predisposed to exhibiting unregulated growth, comprising detecting, in a test cell, epigenetic silencing of at least one gene comprising a nucleic acid molecule as set forth in Table 1, or a combination thereof, thereby identifying the test cell as a cell that exhibits or is predisposed to exhibiting unregulated growth.

4. claims: 63-101



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:

An in vitro method for reducing or inhibiting unregulated growth of a cell exhibiting silenced transcription of at least one gene associated with cancer, comprising restoring expression of a polypeptide encoded by said gene; and the use of an agent in the manufacture of a medicament for treating cancer patient, wherein the agent is for restoring said polypeptide expression.

5. claims: 102-116

Isolated or combined oligonucleotides, comprised in SEQ ID NOS: 1 to 296 and a kit containing said oligonucleotides.

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

EP 03 72 3701

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.

20-06-2007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0177377	A2	18-10-2001	AT 353975 T	15-03-2007
			AU 5478801 A	23-10-2001
			AU 5479401 A	23-10-2001
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			EP 1268857 A2	02-01-2003
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			US 2004076956 A1	22-04-2004
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专利名称(译)	用于与癌症相关的表观遗传学沉默基因的基因组筛选		
公开(公告)号	EP1497462A4	公开(公告)日	2007-11-07
申请号	EP2003723701	申请日	2003-03-07
[标]申请(专利权)人(译)	约翰霍普金斯大学		
申请(专利权)人(译)	约翰·霍普金斯大学医学院		
当前申请(专利权)人(译)	约翰·霍普金斯大学医学院		
[标]发明人	BAYLIN STEPHEN B HERMAN JAMES G SUZUKI HIROMU SIDRANSKY DAVID		
发明人	BAYLIN, STEPHEN, B. HERMAN, JAMES, G. SUZUKI, HIROMU SIDRANSKY, DAVID		
IPC分类号	G01N33/53 A61K31/7068 A61K38/46 A61K45/00 A61K48/00 A61P35/00 C12M1/00 C12N15/09 C12Q1/02 C12Q1/34 C12Q1/68 G01N37/00 C07H21/04 C12P19/34		
CPC分类号	C12Q1/6886 C12Q1/6809 C12Q2600/154		
代理机构(译)	LEE , NICHOLAS JOHN		
优先权	60/362422 2002-03-07 US		
其他公开文献	EP1497462A2		
外部链接	Espacenet		

摘要(译)

提供了一种在癌细胞中鉴定表观遗传学沉默的基因，例如甲基化沉默的基因的方法。另外，提供了通过检测基因表达的表观遗传沉默来鉴定癌症的方法，以及治疗患有这种癌症的受试者例如结肠直肠癌和/或胃癌的方法。还提供了用于实践此类方法的试剂。

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Place of search		Date of completion of the search	
The Hague		20 June 2007	
Examiner		Santagati, Fabio	
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X: particularly relevant if taken alone V: particularly relevant if combined with another document of the same category A: technological background D: non-written disclosures I: intermediate document T: theory or principle underlying the invention B: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: member of the same patent family, non-corresponding document			