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(71) Applicant: UEA ENTERPRISES LIMITED [GB/GB];
The Registry, University of East Anglia Norwich Research
Park, Norwich NR4 7TJ (GB).

(72) Inventors: BREWER, Daniel Simon; c/o University of
East Anglia, Norwich Norfolk NR4 7TJ (GB). LUCA, Bogdan-Alexandru; c/o University of East Anglia, Norwich
Norfolk NR4 7TJ (GB). MOULTON, Vincent; c/o Uni-
versity of East Anglia, Norwich Norfolk NR4 7TJ (GB).
COOPER, Colin; c/o University of East Anglia, Norwich
Norfolk NR4 7TJ (GB).

(74) Agent: LEONARD, Thomas; Kilburn & Strode LLP La-
con London, 84 Theobalds Road, London WC1X 8NL
(GB).

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(54) Title: IMPROVED CLASSIFICATION AND PROGNOSIS OF PROSTATE CANCER

(57) Abstract: The present invention relates to the classification of prostate cancers using samples from patients. Classification is achieved using a novel analysis method that uses less computing power than methods of the prior art. In particular, the invention provides new methods for classifying cancers to make a determination of risk of cancer progression (for example in early cancer), to identify patient populations that may be susceptible to particular treatments and to present opportunities (for example to provide tailored treatment regimens), or to identify patient populations that do not require treatment. The methods of the invention may include identifying potentially aggressive cancers to determine which cancers are or will become aggressive (and hence require treatment) and which will remain indolent (and will therefore not require treatment). The present invention is therefore useful to identify a patient's prognosis and identify those with good or poor prognoses. The present method also allows the identification of patient populations that may be susceptible to treatment with particular drug treatments.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

G16B

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, EMBASE, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	OLMOS D. ET AL: "Prognostic value of blood mRNA expression signatures in castration-resistant prostate cancer: a prospective, two-stage study", THE LANCET ONCOLOGY, vol. 13, no. 11, 1 November 2012 (2012-11-01), pages 1114-1124, XP055284539, AMSTERDAM, NL ISSN: 1470-2045, DOI: 10.1016/S1470-2045(12)70372-8 cited in the application the whole document ----- -/--	1-41



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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

Godzina, Przemysław

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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	ROGERS S. ET AL: "The Latent Process Decomposition of cDNA Microarray Data Sets", IEEE/ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 2, no. 2, 1 April 2005 (2005-04-01), pages 143-156, XP058100143, ISSN: 1545-5963, DOI: 10.1109/TCBB.2005.29 cited in the application the whole document	1-41
X	----- CARRIVICK L. ET AL: "Identification of prognostic signatures in breast cancer microarray data using Bayesian techniques", JOURNAL OF THE ROYAL SOCIETY INTERFACE, vol. 3, no. 8, 31 October 2005 (2005-10-31), pages 367-381, XP055596973, GB ISSN: 1742-5689, DOI: 10.1098/rsif.2005.0093 cited in the application the whole document	1-41
X	----- CUCCHIARA V. ET AL: "Genomic Markers in Prostate Cancer Decision Making", EUROPEAN UROLOGY, vol. 73, no. 4, 11 November 2017 (2017-11-11), pages 572-582, XP055653121, AMSTERDAM, NL ISSN: 0302-2838, DOI: 10.1016/j.eururo.2017.10.036 the whole document -----	32-41