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**Previous Correction:**

see PCT Gazette No. 21/2004 of 21 May 2004, Section II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: QUALITY ASSURANCE/QUALITY CONTROL FOR ELECTROSPRAY IONIZATION PROCESSES

(57) Abstract: The present invention relates to a method of quality assurance/quality control for high-throughput bioassay processes. The method includes generating a bioassay process model, and then comparing spectral data based on a combination of a biochip and a test serum to the bioassay process model to determine if the test sample and the bioassay process are producing acceptable data. Alternatively, the method may include comparing spectral data based on a combination of serum and diluents used in an electrospray process to the bioassay process model. If the bioassay process and test sample fall within the model, then the spectrum produced may be further analyzed.



WO 2004/011905 A3

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/23507

<p><b>A. CLASSIFICATION OF SUBJECT MATTER</b>                  IPC(7) : G01N 31/00; 33/48                  US CL : 702/19, 22, 23                  According to International Patent Classification (IPC) or to both national classification and IPC</p>																			
<p><b>B. FIELDS SEARCHED</b>                  Minimum documentation searched (classification system followed by classification symbols)                  U.S. : 702/19, 22, 23</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                  Please See Continuation Sheet</p>																			
<p><b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b></p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>VON EGGELING et al. Mass Spectrometry Meets Chip Technology: A New Proteomic Tool in Cancer Researc?. Electrophoresis. 2001, Vol. 22, pages 2898-2902, see entire document.</td> <td>1,3-6,9-17,20-25</td> </tr> <tr> <td>Y,P</td> <td>ADAM et al. Serum Protein Fingerprinting Coupled with a Pattern-Matching Algorithm Distinguishes Prostate Cancer from Benign Prostate Hyperplasia and Healthy Men. Cancer Research. 1 July 2002, Vol. 63, pages 3609-3614, see entire document.</td> <td>1-26</td> </tr> <tr> <td>X,P</td> <td>PETRICOIN et al. Use of Proteomic Patterns in Serum to Identify Ovarian Cancer. The Lancet. 16 February 2002, Vol. 359, pages 572-577, see entire document.</td> <td>1-26</td> </tr> <tr> <td>Y,P</td> <td>PETRICOIN et al. Serum Proteomic Patterns for Detection of Prostate Cancer. Journal of the National Cancer Institute. 16 October 2002, Vol. 94, No. 20, pages 1576-1578, see entire document.</td> <td>1-26</td> </tr> <tr> <td>Y,P</td> <td>WO 03/031031 A1 (CIPHERGEN BIOSYSTEMS, INC.) 17 April 2003 (17.04.2003), see entire document.</td> <td>1-26</td> </tr> </tbody> </table>		Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	VON EGGELING et al. Mass Spectrometry Meets Chip Technology: A New Proteomic Tool in Cancer Researc?. Electrophoresis. 2001, Vol. 22, pages 2898-2902, see entire document.	1,3-6,9-17,20-25	Y,P	ADAM et al. Serum Protein Fingerprinting Coupled with a Pattern-Matching Algorithm Distinguishes Prostate Cancer from Benign Prostate Hyperplasia and Healthy Men. Cancer Research. 1 July 2002, Vol. 63, pages 3609-3614, see entire document.	1-26	X,P	PETRICOIN et al. Use of Proteomic Patterns in Serum to Identify Ovarian Cancer. The Lancet. 16 February 2002, Vol. 359, pages 572-577, see entire document.	1-26	Y,P	PETRICOIN et al. Serum Proteomic Patterns for Detection of Prostate Cancer. Journal of the National Cancer Institute. 16 October 2002, Vol. 94, No. 20, pages 1576-1578, see entire document.	1-26	Y,P	WO 03/031031 A1 (CIPHERGEN BIOSYSTEMS, INC.) 17 April 2003 (17.04.2003), see entire document.	1-26
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<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>																			
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"P" document published prior to the international filing date but later than the priority date claimed																			
Date of the actual completion of the international search 08 April 2004 (08.04.2004)	Date of mailing of the international search report 07 MAY 2004																		
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer Lori A. Clow <i>J. Roberts for</i> Telephone No. 703-308-0196																		

INTERNATIONAL SEARCH REPORT

PCT/US03/23507

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	LI et al. Proteomics and Bioinformatics Approaches for Identification of Serum Biomarkers to Detect Breast Cancer. Clinical Chemistry. 2002, Vol. 48, No. 08, pages 1296-1304, see entire document.	1-26

**INTERNATIONAL SEARCH REPORT**

PCT/US03/23507

**Continuation of B. FIELDS SEARCHED Item 3:**

BIOSIS, MEDLINE, CAPLUS, WEST

Mass spectrometry, Self Organizing Map, SELDI, MALDI-TOF, Knowledge Discovery Engine