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(54) Title: USE OF PROBES FOR UNBOUND METABOLITES

(57) Abstract: Methods of determining levels of unbound metabolites are disclosed. Probes derived from fatty acid binding protein mteins are described that bind preferentially to a number of unbound metabolites including oleate, stearate, linoleate, palmitate, arachidonate and unconjugated bilirubin. A profile for a patient is determined using one or more of the described probes. The profile is useful in diagnosis of disease, particularly myocardial infarction, non-alcoholic fatty liver disease (NAFLD), diabetes, stroke, sepsis and neonatal jaundice. The responses of multiple probes to a test sample are used to classify the degree of acute coronary syndrome by comparison to multi-probe profiles generated from unstable angina, non ST elevation myocardial infarction, and ST elevation myocardial infarction.

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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US07/82725

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: **G06F 19/00( 2006.01),17/50( 2006.01);G01N 33/48( 2006.01),33/50( 2006.01)**  
  
 USPC: 702/19,20;703/1,2  
 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)  
 U.S. : 702/19, 20; 703/1,2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 EAST

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 USPAT and US-PGPUB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| X          | US 2005/0244864 A1 (Kleinfeld et al.) Nov. 3, 2005, abstract, paragraphs [0001] - [0010], [0051] - [0053], [0102] - [0112], and the rest of the document. | 1-39                  |

Further documents are listed in the continuation of Box C.       See patent family annex.

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