Title: GLUTATHIONE-S-TRANSFERASE TEST FOR SUSCEPTIBILITY TO PARKINSON'S

Abstract: The present invention relates to the identification of a gene encoding the protein glutathione S-transferase pi2 as being correlated with the susceptibility to neurotoxicity and concomitantly the risk to develop Parkinson's disease. Based on this correlation, various methods are disclosed, including determining the amount of the one or more glutathione S-transferase present in a biological sample in response to an environmental toxin, to assess the risk to develop Parkinson's disease.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: A61K 49/00(2006.01); G01N 32/33(2006.01)

USPC: 424/9.1,9.2;435/7.1,7.2

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.: 424/9.1, 9.2; 435/7.1, 435, 7.2

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)

medicine, pjo, derwent, uspgp: glutathione s-transferase AND Parkinson’s; glutathione s-transferase AND parkinson’s AND assay; glutathione s-transferase AND risk AND assay; glutathione s-transferase AND risk AND method AND assay AND susceptibility; glutathione s-transferase pi; glutathione s-transferase AND pi2; glutathione and toxicity and decreased; glutathione s-

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<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>x</td>
<td>Marionnet et al. (1998). Modulation of drug metabolizing systems by bacterial endotoxin in carp liver and immune organs. Ecotoxicology and Environmental Safety. 41, 189-194. See table III.</td>
<td>1,7</td>
</tr>
</tbody>
</table>

- Further documents are listed in the continuation of Box C.
- See patent family annex.
- Document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention.
- Document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone.
- Document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- Document member of the same patent family.

Date of the actual completion of the international search: 23 May 2006 (23.05.2006)

Date of mailing of the international search report: 11 JUL 2006

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