Title: PRODUCTION OF HUMAN DEFENSINS IN PLANT CELLS

Abstract: The present invention relates, generally, to the production of human defensins from plant cells. Heterologous DNA comprising genes encoding one or more desired human defensins are introduced into plant cells. The one or more human defensins can be recombinantly-produced in the plant cells, purified from the plant cells, and used as an anti-infective agent, a wound treatment agent, a skin care agent, or an agent in the treatment of various intestinal diseases, including irritable bowel disease (IBD), ulcerative colitis, and Crohn’s disease. The recombinantly-produced α-defensins can be provided as oral and topical formulations.
# INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - A01H 1/00; C12N 15/82; C12N 5/10 (2007.10)
USPC - 800/286, 435/320.1, 435/419, 435/468

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)

USPC- 800/286, 435/320.1, 435/419, 435/468

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

USPC- 800/286, 278, 435/320.1, 435/419, 410, 440, 468 (text search)

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PubWEST (USPT, PGPB, EPAB, JPAB) and Google Patent/Scholar

Search terms: human defensin, seed storage protein, monocot, coexpression, vector

**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>Y</td>
<td>US 5,641,497 A (Bevins et al.) 24 June 1997 (24.06.1997) abstract, col 2, In 41 to col 3, In 24, and col 7, In 25 to 64.</td>
<td>2 and 6-20</td>
</tr>
</tbody>
</table>

* Special categories of cited documents:
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  "Z" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report
04 FEB 2008

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