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[Continued on next page]

(54) Title: DSRNA INDUCED SPECIFIC AND NON-SPECIFIC IMMUNITY IN CRUSTACEANS AND OTHER INVERTEBRATES AND BIODELIVERY VEHICLES FOR USE THEREIN

(57) Abstract: Methods for inducing systemic, non-specific and/or sequence specific immune responses in invertebrates, e.g., marine invertebrates such as mollusks, porifera, ctenophora, echinodermata, marine worms, cnidaria and preferably crustaceans, by the administration of at least one dsRNA, that confers immunity against a pathogen, or modulates expression of gene that affects growth, reproduction, and general health or “robustness” are provided. Also provided are methods of identifying invertebrate genes, e.g., crustacean genes, the expression of which is involved in the induction of non-specific (systemic) immune responses against pathogens. Also disclosed are preferred delivery systems and methods for stably administering at least one dsRNA to a crustacean whereby the dsRNA is administered via injection, immersion, in a feed or nutrient medium or comprised in a microorganism, e.g., yeast or microalgae, that expresses said dsRNA and is ingestible by said crustacean, e.g., a shrimp.
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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.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 1/00, 15/74; C12Q 1/68
US CL : 435/6, 243, 471

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.: 435/6, 243, 471

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

Electronic database consulted during the international search (name of database and, where practicable, search terms used)
Please See Continuation Sheet

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>
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<tbody>
<tr>
<td>Y</td>
<td>US 2003/0074684 A1 (GRAHAM et al) 17 April 2003 (04.17.2003), see paragraph [00127].</td>
<td>1-161</td>
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