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(54) Title: TETRAVALENT AND MIXED HEAD BIVALENT DENGUE VACCINE

(57) Abstract: The present invention relates to immunogenic compositions and vaccines of flavivirus. In particular, the present invention relates to improved Dengue vaccines and the design and making of such vaccines that enhance immunogenicity of the vaccine. The vaccines and immunogenic compositions of the present invention relate to mixed head bivalent flagellin-dengue antigen fusion proteins which can be combined with other bivalent dengue antigen fusion proteins or monovalent dengue antigen fusion proteins to produce multivalent vaccine including tetraivalent vaccines.

**A. CLASSIFICATION OF SUBJECT MATTER***C07K 19/00(2006.01)i, C07K 14/18(2006.01)i, C07K 14/195(2006.01)i, A61K 39/12(2006.01)i*

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)

C07K 19/00; C07K 16/28; A61K 39/395; C12N 5/06; C07K 16/00; A61K 39/00; A61K 39/116; C12N 1/21

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal), PubMed, Google

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2008-0063657 A1 (THOMAS POWELL et al.) 13 March 2008 See abstract; paragraphs [0004]~[0007]; claims.	1, 5, 15, 19 2-4, 6-14, 16-18 , 20-21
A	US 2007-0122421 A1 (RUSLAN MEDZHITOV) 31 May 2007 See abstract; claims.	1-21
A	US 6130082 A (WILLIAM R. MAJARIAN et al.) 10 October 2000 See abstract; claims.	1-21
A	US 2009-0004194 A1 (ROSS KEDL) 01 January 2009 See abstract; claims.	1-21

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

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"&amp;" document member of the same patent family

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Information on patent family members

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