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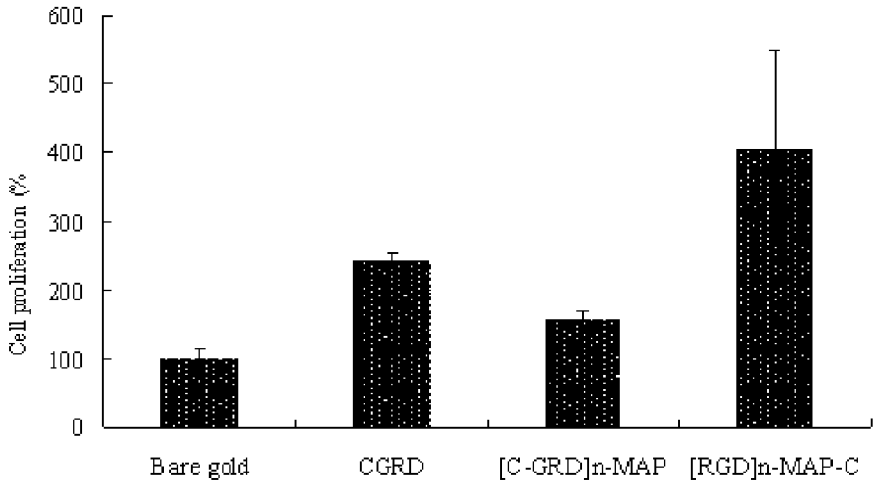
[Continued on next page]

(54) **Title:** METHODS FOR IMMOBILIZING CELLS

[Fig. 4]



(57) **Abstract:** The present invention relates to a method for immobilizing a cell on a solid substrate, comprising the steps of: (a) coating on the solid substrate a peptide which comprises a Arg-Gly-Asp sequence and a cysteine residue at its terminal; and (b) contacting the cell to the peptide coated on the solid substrate. The present invention also relates to a novel peptide for cell immobilization, a microarray and a biosensor. According to the present invention, cells particularly animal cells are effectively immobilized on the solid substrate without cytotoxicity in a more specific manner. Interestingly, the present invention permits cells to be immobilized on nano-patterns utilized in cell chips with cellular microenvironments.

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International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

C07K 17/00(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)

IPC: C07K 17/00, C12M 3/00, C12M 1/22, C12N 5/00, G01N 33/53, G01N 33/567

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 since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKIPASS(KIPO internal) PubMed (cell, adhesion, immobilization, peptide, linker, gold, pattern, array, chip, biochip, sensor and similar terms)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X/Y A	J. Mater. Sci.: Mater. Med., Vol.18, pp1309-1315, Published online: 23 January 2007 See Abstract; page 1310, left column, line 6- line 30; page 1311, right column, line 8 - line13.	1, 2 / 3, 7 4-6, 8-10
Y/A	Molecular and Biochemical Parasitology (1999) Vol.100, pp195-205 SeeAbstract.	3 / 1, 2, 4-10
Y/A	EP 1616939 A1 (MOCHITATE, K.) 18 January 2006 See Abstract; Claim 1, 9, 21, 22, 27.	7 / 1-6, 8-10
A	US 20020072074 A1 (MASSACHUSETTS INSTITUTE OF TECHNOLOGY) 13 June 2002 See Abstract; Claim 1-20.	1-10

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1616939 A1	18.01.2006	WO 2004085606 A1	07.10.2004
		US 20060263878 A1	23.11.2006
US 20020072074 A1	13.06.2002	US 20040023414 A1	05.02.2004
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