Abstract:
The invention provides a method for immobilizing microvesicles to a coated surface using a laminar flow. Further provided are a chip mould for the preparation of microfluidic chips suitable for use in the method and uses thereof. Further provided is a microfluidic chip suitable for use of the method. Further provided is a coated surface suitable for use of the method and uses thereof. Further provided are means and methods for detecting microvesicles and uses thereof for detecting or determining diseases related to microvesicles. Further is provided a kit suitable for use of the method, comprising of a microfluidic chip and a coated surface.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

| INV. | G01N33/554 | G01N33/551 | G01N33/543 | G01N30/92 | B01L3/00 |

According to International Patent Classification (IPC) or to both national classification and IPC.

B. HELD SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

GOIN BOIL

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 practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, FSTA, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<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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</table>

Further documents are listed in the continuation of Box C

See patent family annex

T1 later 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

X 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

Y 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

A document member of the same patent family

Date of the actual completion of the international search

8 April 2010

Date of mailing of the international search report

21/07/2010

Name and mailing address of the ISA/European Patent Office, P B 5818 Patentlaan 2 NL - 2280 HV Rijswijk, Tel (+31-70) 340-2040, Fax (+31-70) 340-3016

Authorized officer

Jenkins, Gareth

Form PCT/ISA/210 (second sheet) (April 2005)
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<td>US 2004/033624 Al (ZWEIG STEPHEN ELIOT [US]) 19 February 2004 (2004-02-19) the whole document figure 1 claim 1 paragraph [0027] example 7</td>
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<td>X</td>
<td>US 2005/239193 Al (HENDERSON ERIC R [US] ET AL) 27 October 2005 (2005-10-27) the whole document claims 1, 2, 4, 8, 15 paragraphs [0050]</td>
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<td>CHEN CHIHCHEN ET AL: &quot;Microfluidic isolation and transcriptome analysis of serum microvesicles&quot; LAB ON A CHIP vol. 10, no. 4, 8 December 2009 (2009-12-08), pages 505-511, XP002576862</td>
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<td>wo 2009/100029 Al (GEN HOSPITAL CORP [US]; SKOG JOHAN [US]; BREAKEFIELD XANDRA 0 [US]; BR) 13 August 2009 (2009-08-13) the whole document paragraph [0033] claims 31, 41</td>
<td>1-17, 22-24</td>
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<td>NAGRATH SUNITHA ET AL: &quot;Isolation of rare circulating tumour cells in cancer patients by microchip technology&quot; NATURE (LONDON), vol. 450, no. 7173, December 2007 (2007-12), page 1235, XP002576863 ISSN: 0028-0836 the whole document</td>
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### International Search Report

**Observations where certain claims were found unsearchable** (Continuation of Item 2 of First Sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. **Claims Nos**
   - because they relate to subject matter not required to be searched by this Authority, namely

2. **Claims Nos**
   - because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be earned out, specifically

3. **Claims Nos**
   - because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 64(a)

### Observations where unity of invention is lacking (Continuation of Item 3 of First Sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

- see additional sheet

1. **As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims**

2. **As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees**

3. **As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos**

4. **No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims, it is covered by claims Nos 1-17, 24 (completely); 22, 23 (partially)**

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation
- NO protest accompanied the payment of additional search fees

Form PCT/ISA/210 (continuation of first sheet (2)) (April 2005)
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-17, 24(completely); 22, 23(partially)
   Method of claim 1 and use of claim 24.

2. claim: 18
   Product of claim 18.

3. claims: 19, 20
   Kit of claim 19

4. claims: 21(completely); 22, 23(partially)
   Use of claim 21.

5. claim: 25
   Kit of claim 25.
<table>
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<th>Publication date</th>
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<tr>
<td>US 2004033624 A1</td>
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