

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>P2016-0140WO</b>	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. <b>PCT/JP2017/015954</b>	International filing date ( <i>day/month/year</i> ) <b>20 April 2017 (20.04.2017)</b>	Priority date ( <i>day/month/year</i> )	
International Patent Classification (8th edition unless older edition indicated) <b>See relevant information in Form PCT/ISA/237</b>			
Applicant <b>ASAHI INTECC CO., LTD.</b>			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report <b>22 October 2019 (22.10.2019)</b>
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  <b>Miki Kobayashi</b>
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**PATENT COOPERATION TREATY**

**TRANSLATION**

From the  
INTERNATIONAL SEARCHING AUTHORITY

**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	25.07.2017
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Applicant's or agent's file reference <b>P2016-014WO</b>	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/JP2017/015954</b>	International filing date (day/month/year) <b>20.04.2017</b>	Priority date (day/month/year)
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International Patent Classification (IPC) or both national classification and IPC  
**A61M25/09 (2006.01) i, A61B17/22 (2006.01) i, A61F2/01 (2006.01) i, A61M25/00 (2006.01) i**

Applicant  
**ASAHI INTECC CO., LTD.**

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2017/015954

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed
  - a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
  - a.  forming part of the international application as filed:
    - in the form of an Annex C/ST.25 text file.
    - on paper or in the form of an image file.
  - b.  furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
  - c.  furnished subsequent to the international filing date for the purposes of international search only:
    - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
    - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No. PCT/JP2017/015954
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<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>
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1. Statement			
Novelty (N)	Claims	_____	YES
	Claims	1-3	NO
Inventive step (IS)	Claims	_____	YES
	Claims	1-3	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims	_____	NO

2. Citations and explanations:	
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Document 1: JP 8-503154 A (SCIMED LIFE SYSTEMS, INC.)  
09 April 1996, page 20, lines 4-6, page 25,  
line 6 to page 56, line 20, fig. 1-11 & US  
5490859 A, column 1, lines 13-19, column 4,  
line 13 to column 4, line 19, fig. 1-11 &  
WO 1994/010919 A1

Claims 1-3

The invention as in claims 1-3 is disclosed in document 1 cited in the ISR (page 20, lines 4-6, page 25, line 6 to page 56, line 20, fig. 1-11), and thus lacks novelty and does not involve an inventive step.

With respect to claim 1, document 1 discloses a catheter provided with:

a radially expandable and contractable tubular removal element (16) (see fig. 8);

a hollow drive shaft (92) connected at the base end of the removal element (16) (see page 43, line 11 to page 44, line 6, fig. 8);

a distal tip circular body (106) connected at the distal end of the removal element (16) (see page 39, line

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

25 to page 40, line 8, fig. 8);

a tube (134) which is partially disposed in a space within the removal element (16) and extends through the removal element (16) so that the base part thereof is positioned outside the removal element (16) (see page 43, line 11 to page 44, line 6, fig. 8); and

a guide wire (42) that is connected so that the distal end thereof abuts the guide wire (42) seat (112) at the distal end of the removal element (16) and/or the distal end circular body (106), and extends through the interior of the removal element (16) and the hollow drive shaft (92) so that the base part thereof is positioned closer than the base part of the hollow drive shaft (92) to the base part of the catheter (see page 39, line 25 to page 41, line 10, fig. 5, 8).

Further, with respect to claim 2, document 1

Whether the tube (134) distal end is connected to the aforementioned distal tip (130), and whether the tube (134) base end is a free end;

Document 1 indicates that the tube (134) distal end is a free end and the outer circumference of the tube (134) base part is connected so as to abut the outer circumference of the removal element (16) or the hollow drive shaft (92) (see page 39, line 25 to page 44, line 6, fig. 8).

Moreover, with respect to claim 3, document 1 discloses that the base part of the tube (134) has an opening toward the base end of the catheter (see fig. 8).

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2017/015954

Box No. VI Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
<b>JP 2017-77323 A</b>	<b>27.04.2017</b>	<b>20.10.2015</b>	
<b>[E, A]</b>			

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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