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02.04.2003 JP 2003099462
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accordance with Art. 76 EPC:
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(54) **Infectious etiologic agent detection probe and probe set, carrier, and genetic screening method**

(57) An infectious etiologic agent detection probe set which detects an infectious etiologic agent gene, includes a plurality of kinds of probes including oligonucleotide having base sequences selected from each of a plurality of groups selected from a first group including base sequences of SEQ ID Nos. 1 to 14 and complementary sequences thereof, a second group including base sequences of SEQ ID Nos. 15 to 24 and complementary sequences thereof, a third group including base sequences of SEQ ID Nos. 25 to 36 and complementary sequences thereof, a fourth group including base sequences of SEQ ID Nos. 37 to 47 and complementary sequences thereof, a fifth group including base sequenc-

es of SEQ ID Nos. 48 to 57 and complementary sequences thereof, a sixth group including base sequences of SEQ ID Nos. 58 to 68 and complementary sequences thereof, a seventh group including base sequences of SEQ ID Nos. 69 to 77 and complementary sequences thereof, an eighth group including base sequences of SEQ ID Nos. 78 to 85 and complementary sequences thereof, a ninth group including base sequences of SEQ ID Nos. 86 to 97 and complementary sequences thereof, and a 10th group including base sequences of SEQ ID Nos. 98 to 106 and complementary sequences thereof.

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European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 07 6492

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WANG RONG-FU ET AL: "Design and evaluation of oligonucleotide-microarray method for the detection of human intestinal bacteria in fecal samples" FEMS MICROBIOLOGY LETTERS, vol. 213, no. 2, 6 August 2002 (2002-08-06), pages 175-182, XP002289519 ISSN: 0378-1097 * abstract *	1	INV. C12Q1/68
Y	----- WILSON KENNETH H ET AL: "High-density microarray of small-subunit ribosomal DNA probes" APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 68, no. 5, May 2002 (2002-05), pages 2535-2541, XP002289520 ISSN: 0099-2240 * the whole document *	1-4	
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A	----- WO 02/070728 A (KELEN GABOR DAVID ; YANG SAMUEL (US); LIN SHIN (US); ROTHMAN RICHARD E) 12 September 2002 (2002-09-12) *whole document, especially Fig 1, Table 1, Fig 5* ----- -/-	1-4	
8 The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 September 2006	Examiner Cornelis, Karen
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 September 2006	Examiner Cornelis, Karen
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 September 2006	Examiner Cornelis, Karen
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)



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DOCUMENTS CONSIDERED TO BE RELEVANT			
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<p>8 The present search report has been drawn up for all claims</p>			TECHNICAL FIELDS SEARCHED (IPC)
Place of search		Date of completion of the search	Examiner
The Hague		21 September 2006	Cornelis, Karen
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
1-4 (completely)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4 (completely)

An infection detection probe which can detect a gene originated in *Staphylococcus aureus*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *S. aureus* by using said carrier.

2. claims: 5-8 (completely)

An infection detection probe which can detect a gene originated in *Staphylococcus epidermidis*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *S. epidermidis* by using said carrier.

3. claims: 9-12 (completely)

An infection detection probe which can detect a gene originated in *Escherichia coli*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *E. coli* by using said carrier.

4. claims: 13-16 (completely)

An infection detection probe which can detect a gene originated in *Klebsiella pneumoniae*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *K. pneumoniae* by using said carrier.

5. claims: 17-20 (completely)

An infection detection probe which can detect a gene originated in *Pseudomonas aeruginosa*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *P. aeruginosa* by using said carrier.

6. claims: 21-24 (completely)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

An infection detection probe which can detect a gene originated in *Serratia marescens*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *S. marescens* by using said carrier.

7. claims: 25-28 (completely)

An infection detection probe which can detect a gene originated in *Streptococcus pneumoniae*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *S. pneumoniae* by using said carrier.

8. claims: 29-33 (completely)

An infection detection probe which can detect a gene originated in *Haemophilus influenzae*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *H. influenzae* by using said carrier.

9. claims: 33-36 (completely)

An infection detection probe which can detect a gene originated in *Enterobacter cloacae*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *E. cloacae* by using said carrier.

10. claims: 37-40 (completely)

An infection detection probe which can detect a gene originated in *Enterococcus faecalis*, a probe set including such a probe, a carrier on which such an infection detection probe is immobilised and a genetic screening method of detecting a gene originated in *E. faecalis* by using said carrier.

11. claims: 41-45 (completely)



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

An infectious etiologic agent amplification primer used to PCR-amplify a 16S rRNA gene arrangement of an infectious agent comprising oligonucleotide having one of base sequences of SEQ ID No 107-112, and a method to detect an infectious agent by executing a PCR amplification process using a set of said amplification primers.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 07 6492


This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-09-2006

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专利名称(译)	传染性病原体检测探针和探针组，载体和遗传筛选方法		
公开(公告)号	EP1717323A3	公开(公告)日	2006-12-20
申请号	EP2006076492	申请日	2004-03-29
[标]申请(专利权)人(译)	佳能株式会社		
申请(专利权)人(译)	佳能株式会社		
当前申请(专利权)人(译)	佳能株式会社		
[标]发明人	YAMAMOTO NOBUKO C O CANON KABUSHIKI KAISHA TSUKUDA MAMORU C O CANON KABUSHIKI KAISHAP ISHII MIE C O CANON KABUSHIKI KAISHA YOSHII HIROTO C O CANON KABUSHIKI KAISHA KAWAGUCHI MASAHIRO C O CANON KABUSHIKI KAISHA SUZUKI TOMOHIRO C O CANON KABUSHIKI KAISHA		
发明人	YAMAMOTO, NOBUKO, C/O CANON KABUSHIKI KAISHA TSUKUDA, MAMORU, C/O CANON KABUSHIKI KAISHAP ISHII, MIE, C/O CANON KABUSHIKI KAISHA OGURA, MASAYA, C/O CANON KABUSHIKI KAISHA YOSHII, HIROTO, C/O CANON KABUSHIKI KAISHA FUKUI, TOSHIFUMI, C/O CANON KABUSHIKI KAISHA KAWAGUCHI, MASAHIRO, C/O CANON KABUSHIKI KAISHA SUZUKI, TOMOHIRO, C/O CANON KABUSHIKI KAISHA		
IPC分类号	C12Q1/68 G01N33/53 C07H21/04 C12M1/00 C12M1/34 C12N15/09 C12Q1/02 C12Q1/70 G01N33/569 G01N37/00		
CPC分类号	C12Q1/689 C12Q1/6837 Y02A50/451		
代理机构(译)	贝雷斯福德KEITH DENIS LEWIS		
优先权	2003099458 2003-04-02 JP 2003099457 2003-04-02 JP 2003099456 2003-04-02 JP 2003099455 2003-04-02 JP 2003099454 2003-04-02 JP 2003099453 2003-04-02 JP 2003099452 2003-04-02 JP 2003099463 2003-04-02 JP 2003099462 2003-04-02 JP 2003099461 2003-04-02 JP 2003099460 2003-04-02 JP 2004077045 2004-03-17 JP 2003099459 2003-04-02 JP		
其他公开文献	EP1717323A2 EP1717323B1		
外部链接	Espacenet		
摘要(译)			

检测感染性病原体基因的感染性病原体检测探针组包括多种探针，所述探针包括具有选自包括SEQ ID No.1至SEQ ID NO.1的碱基序列的第一组的多个基团中的每一个的碱基序列的寡核苷酸。14及其互补序列，第二组包括SEQ ID Nos.15-24的碱基序列及其互补序列，第三组包括SEQ ID Nos.25-36的碱基序列及其互补序列，第四组包括碱基序列SEQ ID Nos.37-47及其互补序列，第五组包括SEQ ID Nos.48-57的碱基序列及其互补序列，第六组包括SEQ ID Nos.58-68的碱基序列及其互补序列第七组包括SEQ ID Nos.69-77的碱基序列及其互补序列，第八组包括SEQ ID NO：6的碱基序列第78-85号及其互补序列，第九组包括SEQ ID Nos.86-97的碱基序列及其互补序列，第10组包括SEQ ID Nos.98-106的碱基序列及其互补序列。



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Y	WILSON KENNETH H ET AL: "High-density microarray of small-subunit ribosomal DNA probes" APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 68, no. 5, May 2002 (2002-05), pages 2535-2541, XP002289529 ISSN: 0099-2240 * the whole document *	1-4
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A	WO 02/070728 A (KELEN GABOR DAVID ; YANG SAMUEL (US); LIN SHIN (US); ROTHMAN RICHARD S) 12 September 2002 (2002-09-12) whole document, especially Fig 1, Table 1, Fig 5 ----- -/-	1-4
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		Examiner: Cornelis, Karen
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