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(30) Priority: **25.04.2000 JP 2000124600**

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(54) **Sentinel lymph node detection method and system therefor**

(57) A method and system by which the sentinel lymph node, which is the first lymph node to which cancer is transferred when cancer is transferred to lymph nodes, is detected easily and with a high degree of accuracy. A fluorescent colorant is injected near a tumor, and after a predetermined period of time an abdominal operation is performed and stimulating light is projected onto the area being examined. Because the fluorescent colorant has been accumulated on the sentinel lymph

node, it emits fluorescent light, which is then magnified and converted to a visual image. The examiner can view the normal image and the visible image at the same time. Because the stimulating light is in the near-infrared wavelength band, which is difficult for the fatty and other tissue that cover the sentinel lymph node to absorb, the sentinel lymph node is detected from the surface of the tissue.



European Patent
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PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 01 10 9958

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	<p>DATABASE EMBASE 'Online! ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL; NOGUCHI M. ET AL: "A multicenter validation study of sentinel lymph node biopsy by the Japanese Breast Cancer Society." retrieved from STN Database accession no. 2000375102 XP002226130 * abstract * & BREAST CANCER RESEARCH AND TREATMENT, (2000) 63/1 (31-40).,</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1	<p>A61K41/00 A61K49/00</p>
			<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p>
			A61K
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>Although claims 1-38 are directed to a diagnostic method practised on the human/animal body (Article 52(4) EPC), the search has been carried out and based on the alleged effects of the compound/composition.</p>			
Place of search		Date of completion of the search	Examiner
THE HAGUE		27 December 2002	Berte, M
<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
EP 01 10 9958

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
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X	WO 98 48838 A (COCKBAIN JULIAN R M ;NYCOMED IMAGING AS (NO); DELECKI DANIEL JOSEP) 5 November 1998 (1998-11-05) * page 15, paragraph 1 - paragraph 2; claims 1,14,28-30 * ---	1	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
P,X	WO 00 45855 A (UNIV CALIFORNIA ;MATTREY ROBERT F (US)) 10 August 2000 (2000-08-10) * claims 1-5 * ---	1	
P,X	DATABASE EMBASE 'Online! ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL; NIMURA H. ET AL: "Sentinel node navigation by ICG using infrared ray electronic endoscopy." retrieved from STN Database accession no. 2001227609 XP002226132 * abstract * & JAPANESE JOURNAL OF GASTROENTEROLOGICAL SURGERY, (2001) 34/5 (520)., ---	1-37	
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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.C1.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
P,X	<p>DATABASE MEDLINE 'Online! September 2000 (2000-09) HAWRYSZ D J ET AL: "Developments toward diagnostic breast cancer imaging using near-infrared optical measurements and fluorescent contrast agents." Database accession no. NLM11191107 XP002226133 * abstract * & NEOPLASIA (NEW YORK, N.Y.) UNITED STATES 2000 SEP-OCT, vol. 2, no. 5, September 2000 (2000-09), pages 388-417, ISSN: 1522-8002</p> <p>-----</p>	1-37	<p>TECHNICAL FIELDS SEARCHED (Int.C1.7)</p>

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

EP 01 10 9958

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
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27-12-2002

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			EP 0979103 A1	16-02-2000
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			WO 0045855 A2	10-08-2000

专利名称(译)	前哨淋巴结检测方法及其系统		
公开(公告)号	EP1149591A3	公开(公告)日	2003-03-05
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[标]申请(专利权)人(译)	富士摄影胶片公司		
申请(专利权)人(译)	富士胶片有限公司.		
当前申请(专利权)人(译)	富士胶片株式会社		
[标]发明人	HAYASHI KATSUMI		
发明人	HAYASHI, KATSUMI		
IPC分类号	A61B10/00 A61B1/00 A61K49/00 A61K41/00		
CPC分类号	A61K49/0034 A61B1/043 A61B5/0071 A61B5/0086 A61B5/418		
优先权	2000124600 2000-04-25 JP		
其他公开文献	EP1149591B1 EP1149591A2		
外部链接	Espacenet		

摘要(译)

前哨淋巴结是癌症转移到淋巴结时癌转移的第一个淋巴结的方法和系统，其容易且高精度地被检测。在肿瘤附近注射荧光着色剂，并且在预定的一段时间之后进行腹部手术并且将刺激光投射到被检查的区域上。因为荧光着色剂已经积聚在前哨淋巴结上，所以它发出荧光，然后放大荧光并转换成视觉图像。检查者可以同时查看正常图像和可见图像。因为刺激光处于近红外波长带，这对于覆盖前哨淋巴结的脂肪和其他组织难以吸收，所以从组织表面检测到前哨淋巴结。



European Patent Office

PARTIAL EUROPEAN SEARCH REPORT

which under Rule 40 of the European Patent Convention (EP 01 10 9958 shall be considered, for the purposes of subsequent proceedings, as the European search report

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Inv. Cl. 7)
Category	Citation of document with indication, where appropriate, of relevant passages.		
X	DATABASE EMBASE "Online" ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL; NOGUCHI M ET AL: "A multicenter validation study of sentinel lymph node biopsy by the Japanese Breast Cancer Society" retrieved from STM Database accession no. 2000375102 * abstract * & BREAST CANCER RESEARCH AND TREATMENT, (2000) 63/1 (31-40)-.	1	A61K41/00 A61K49/00
INCOMPLETE SEARCH		TECHNICAL FIELD SEARCHED (Inv. Cl. 7)	
This Search Division considers that the present application, or one or more of its claims, does not comply with the EPC to such an extent that a prejudicial search into the state of the art cannot be carried out, or can only be carried out partially, for these claims. Claims searched completely: Claims not searched: Reason for the limitation of the search: Although claims 1-38 are directed to a diagnostic method practised on the human/animal body (Article 52(4) EPC), the search has been carried out and based on the alleged effects of the compound/composition.		A61K	
Date of report		Date of completion of the search	
THE HAGUE		27 December 2002	
GATEWAY OF CITED DOCUMENTS		Inventor	
X particularly relevant & later alone V particularly relevant & combined with another document of the same category A non-relevant document P non-verbal document I intermediate document		Berte, M	
1. theory or principle underlying the invention 2. prior art documents, but published on, or after the filing date 3. document cited in the application 4. document cited for other reasons 5. member of the same patent family, corresponding document			