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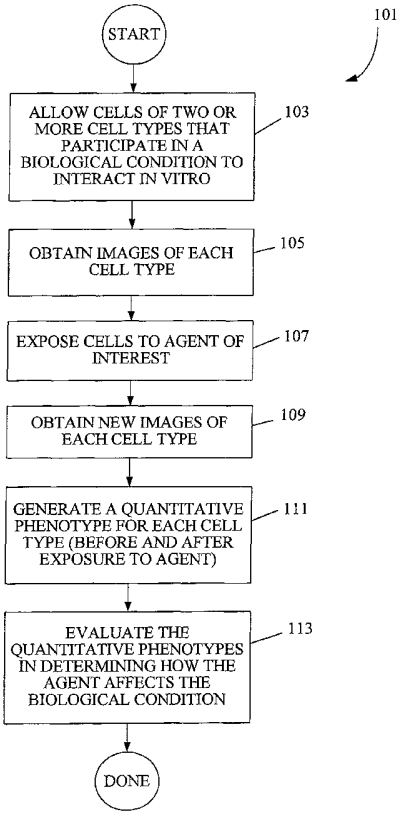
(54) Title: METHOD OF CHARACTERIZING POTENTIAL THERAPEUTICS BY DETERMINING CELL-CELL INTERACTIONS



(57) Abstract: A method quantitatively analyzes images of two different cell types that interact in producing and maintaining a disease state or other biological condition. The two separate cell types are exposed to an agent or stimulus suspected of influencing the biological condition (e.g., the agent might be a potential therapeutic for treating a cancer). The two different cell types are co-cultured or otherwise allowed to interact with one another before and during exposure to the agent. The images of the cells show how the agent affects the cells' phenotypes, including their viability, migration patterns, etc. The method generates a quantitative phenotype for each cell type by quantitatively analyzing the cell images via an automatic procedure. The quantitative phenotypes typically take the form of a group of scalar or vector descriptors that together provide a "fingerprint." The descriptors may be size values, positions, morphological values, intensity distributions, etc.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N15/14 G01N33/50

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)
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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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 17624 A (CELLOMICS INC ;GOUGH ALBERT H (US); JUNG DAVID R (US); TAYLOR D LA) 30 March 2000 (2000-03-30) page 4, line 18-22 page 9, line 21 -page 10, line 7 page 24, line 19 -page 25, line 12 page 28 examples 1,2 ---	1-45
X	WO 97 45730 A (BIODX) 4 December 1997 (1997-12-04) page 13, line 4-9 page 13, line 12-17 page 25, line 3-19 page 31 examples 1,2 --- -/--	1-45

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Cuendet, P

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X	TAKAYAMA S ET AL: "Patterning of cells and their environments using multiple laminar fluid flows in capillary networks" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 96, May 1999 (1999-05), pages 5545-5548, XP002159130 ISSN: 0027-8424 page 5584; figure 2 ---	31
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A	BLANKENSTEIN G ET AL: "MODULAR CONCEPT OF A LABORATORY ON A CHIP FOR CHEMICAL AND BIOCHEMICAL ANALYSIS" BIOSENSORS & BIOELECTRONICS, ELSEVIER SCIENCE PUBLISHERS, BARKING, GB, vol. 13, no. 3/4, 1998, pages 427-438, XP000700154 ISSN: 0956-5663 the whole document -----	1-45

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