# (19) World Intellectual Property Organization International Bureau





# (43) International Publication Date 21 February 2002 (21.02.2002)

#### **PCT**

# (10) International Publication Number WO 02/013968 A3

(51) International Patent Classification<sup>7</sup>: G01N 35/00, B25J 15/06, B01J 19/00

09/638,733

15 August 2000 (15.08.2000) U

\_\_\_\_\_,\_\_\_\_\_

(21) International Application Number: PCT/US01/24996

(22) International Filing Date: 9 August 2001 (09.08.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/224,338	11 August 2000 (11.08.2000)	US
60/224,336	11 August 2000 (11.08.2000)	US
60/224,335	11 August 2000 (11.08.2000)	US
60/224,337	11 August 2000 (11.08.2000)	US
09/639,731	15 August 2000 (15.08.2000)	US
09/639,734	15 August 2000 (15.08.2000)	US
09/639,732	15 August 2000 (15.08.2000)	US

(71) Applicant: INCYTE GENOMICS, INC. [US/US]; 3160 Porter Drive, Palo Alto, CA 94304 (US).

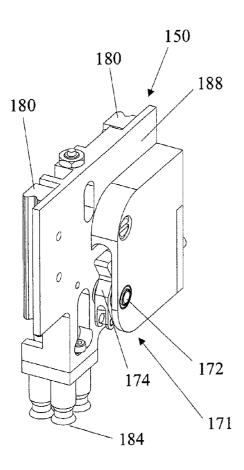
(72) Inventors: BEVIRT, JoeBen; 678 Oak Parkway, Emerald Hills, CA 94062 (US). ROLLINS, Eric, J.; 162 Wall Street, Sonora, CA 95370 (US).

(74) Agent: DUFFEY, Gregg, A.; Howrey Simon Arnold & White, LLP, 750 Bering Drive, Houston, TX 77057-2198 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: MICROARRAY PLACER UNIT



(57) Abstract: The present invention provides a placer unit (150) for a microarray processing device to transport a workpiece such as a microscope slide (32) before and after processing operations by the microarray processing device. The processing device is slidably attached to a gantry (166) and has a support carriage and a movable arm. The movable arm is slidably attached to the support carriage. The placer unit includes a main support body (188), a latching mechanism (171) and a vacuum chuck (184). The main support body is mounted on the support carriage and allowed to translate up and down. The latching mechanism enables the main support body to couple with the movable arm of the processing device. The vacuum chuck (184) is used to hold the workpiece for transportation. The present invention also includes a method within a microarray processing machine for transporting a workpiece such as a microscope slide (32) from one workstation to another workstation.

WO 02/013968 A3



(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### (88) Date of publication of the international search report: 16 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### Published:

with international search report

#### INTERNATIONAL SEARCH REPORT

tional Application No PCT/US 01/24996

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01N35/00 B25J B25J15/06 B01J19/00 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) IPC 7 GO1N BO1J 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 C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 98 41531 A (UNIV WASHINGTON ; BLANCHARD 1,2,13, ALAN P (US)) 14 24 September 1998 (1998-09-24) Α 19 page 56, line 24 -page 61, line 32; figure page 71, line 3 - line 23 page 73, line 3 - line 16; figures 5-10 page 61, line 7 - line 11 FR 2 630 216 A (IBAL) Α 3,5,19 20 October 1989 (1989-10-20) page 2, line 25 - line 32 page 10, line 25 -page 11, line 10; figures 1,4,5 -/--Χ Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: \*T\* later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-\*O\* document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 26/08/2002 15 August 2002 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

Hocquet, A

### INTERNATIONAL SEARCH REPORT

In tional Application No PCT/US 01/24996

Category °	Citation of document, with indication where appropriate of the relevant	Relevant to claim No.
Category	Citation of document, with indication, where appropriate, of the relevant passages	Helevant to claim No.
A	US 5 958 342 A (BALDESCHWIELER JOHN ET AL) 28 September 1999 (1999-09-28) column 9, line 35 - line 67; figures 6,9,10 column 10, line 23 - line 26 column 11, line 35 - line 56; figure 10	1,5,13, 15
Α	WO 92 12233 A (MEDICAL RES COUNCIL) 23 July 1992 (1992-07-23) page 8, line 4 - line 9; figures 1,3	3,5
А	US 5 591 402 A (JONES DONALD) 7 January 1997 (1997-01-07) column 3, line 65 -column 4, line 55 column 5, line 3 - line 26; figures	3,5,19
A	WO 99 49295 A (ZHANG JASON Z ;BIOGENEX LAB (US); CHANG ZHI WENG (US); KALRA KRISH) 30 September 1999 (1999-09-30) page 14, line 27 -page 15, line 18; figures 1-10 page 27, line 5 - line 22; figures 1-10,17	3,5

### INTERNATIONAL SEARCH REPORT

ormation on patent family members

Ir: tional Application No PCT/US 01/24996

	<del></del>	<del></del>		T
Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 9841531 A	24-09-1998	WO US	6028189 A 6419883 B1 6572598 A 0970101 A2 2001518086 T 9841531 A2 6384210 B1 2001018512 A1	22-02-2000 16-07-2002 12-10-1998 12-01-2000 09-10-2001 24-09-1998 07-05-2002 30-08-2001
FR 2630216 A	20-10-1989	FR	2630216 A1	20-10-1989
US 5958342 A	28-09-1999	AU EP JP US WO	3125097 A 0898495 A1 2000513266 T 6001309 A 9744134 A1	09-12-1997 03-03-1999 10-10-2000 14-12-1999 27-11-1997
WO 9212233 A	23-07-1992	EP WO JP	0566602 A1 9212233 A1 6504369 T	27-10-1993 23-07-1992 19-05-1994
US 5591402 A	07-01-1997	US US AU AU CA EP JP WO	5599500 A 5591642 A 673765 B2 7321894 A 2143451 A1 0659278 A1 8501882 T 9502190 A1	04-02-1997 07-01-1997 21-11-1996 06-02-1995 19-01-1995 28-06-1995 27-02-1996 19-01-1995
WO 9949295 A	30-09-1999	WO AU CA EP JP	9949295 A1 6941798 A 2325583 A1 1066502 A1 2002507738 T	30-09-1999 18-10-1999 30-09-1999 10-01-2001 12-03-2002