

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 October 2007 (18.10.2007)

PCT

(10) International Publication Number
WO 2007/118208 A2

- (51) International Patent Classification:
CI2Q 1/68 (2006.01) *CI2N 1/20* (2006.01)
- (21) International Application Number:
PCT/US2007/066171
- (22) International Filing Date: 6 April 2007 (06.04.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/744,577 10 April 2006 (10.04.2006) US
60/744,579 10 April 2006 (10.04.2006) US
- (71) Applicant (for all designated States except US): **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** [US/US]; 1111 Franklin Street, 5th Floor, Oakland, California 94607-5200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ALLBRITTON, Nancy** [US/US]; 22 Virgil Court, Irvine, California 92617 (US). **SIMS, Christopher E.** [US/US]; 22 Virgil Court, Irvine, California 92617 (US). **WANG, Yuli** [CN/US]; 428 Stanford Court, Irvine, California 92617 (US). **BACHMAN, Mark** [US/US]; 28 Perkins Court, Irvine, California

92617 (US). **LI, Guann-Pyng** [US/US]; 20 Young Court, Irvine, California 92617 (US). **STANBRIDGE, Eric** [GB/US]; 501 Seaward Road, Corona Del Mar, California 92625 (US).

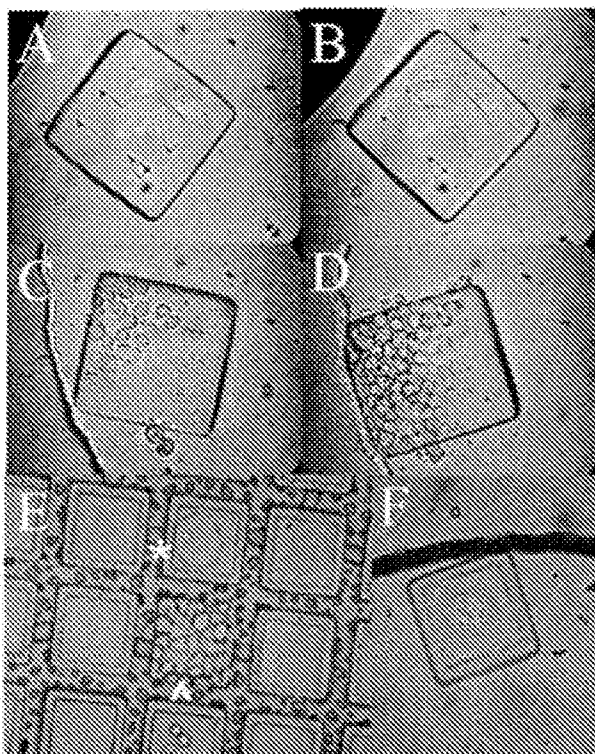
(74) Agents: **ROBERTS, Kenneth, S.** et al.; Orrick Herrington & Sutcliffe LLP, 4 Park Plaza, Suite 1600, Irvine, CA 92614-2558 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR EFFICIENT COLLECTION OF SINGLE CELLS AND COLONIES OF CELLS AND FAST GENERATION OF STABLE TRANSFECTANTS



(57) Abstract: A plate manufactured to enable samples of cells, micro-organisms, proteins, DNA, biomolecules and other biological media to be positioned at specific locations or sites on the plate for the purpose of performing addressable analyses on the samples. Preferably, some or all of the sites are built from a removable material or as pallets so that a subset of the samples of interest can be readily isolated from the plate for further processing or analysis. The plate can contain structures or chemical treatments that enhance or promote the attachment and/or function of the samples, and that promote or assist in their analyses. Use of the plate advantageously enables the selection and sorting of cells based on dynamic phenomena and the rapid establishment of stable transfectants.



PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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.