

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
30 October 2008 (30.10.2008)

PCT

(10) International Publication Number  
**WO 2008/130655 A1**

(51) International Patent Classification:  
**G06M 11/02** (2006.01) **G01N 33/48** (2006.01)  
**C12Q 1/06** (2006.01)

[US/US]; 19 Bellevue Rd., Arlington, MA 02476 (US).  
**YANG, Liju** [CN/US]; 19 Bellevue Rd., 2005 Catskill  
Court, Apex, NC 27523 (US). **ZAMIR, Lee** [US/US];  
120-c Auburn Street, Cambridge, MA 02139 (US).

(21) International Application Number:  
PCT/US2008/005066

(74) Agent: **CLARK, Paul, T.**; Clark & Elbing LLP, 101 Fed-  
eral Street, Boston, MA 02110 (US).

(22) International Filing Date: 21 April 2008 (21.04.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/925,368 20 April 2007 (20.04.2007) US

(71) Applicants (for all designated States except US): **THE  
GENERAL HOSPITAL CORPORATION** [US/US];  
55 Fruit Street, Boston, MA 02114 (US). **PURDUE RE-  
SEARCH FOUNDATION** [US/US]; 3000 Kent Avenue,  
West Lafayette, IN 47906 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TONER, Mehmet**  
[US/US]; 100 Pilgrim Road, Wellesley, MA 02481 (US).  
**BASHIR, Rashid** [US/US]; 19 Bellevue Rd., West  
Lafayette, IN (US). **CHENG, Xuanhong** [CN/US]; 19  
Bellevue Rd., Charlestown, MA (US). **DEMIRCI, Utkan**  
[TR/US]; 457 Mt. Auburn Street #10, Cambridge, MA  
02138 (US). **IRIMIA, Daniel** [US/US]; 65 Chelsea #309,  
Charlestown, MA 02129 (US). **RODRIGUEZ, William**

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL,  
NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG,  
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(54) Title: METHODS FOR COUNTING CELLS

(57) Abstract: The invention features methods of quantifying cells in a sample by lysing the cells followed by the measurement of at least one intracellular component. Methods of the invention are especially useful for quantifying small numbers of cells, e.g., over a large surface area or volume compared to the cell size. In a preferred embodiment, methods of the invention are performed using a microfluidic device.

WO 2008/130655 A1