Recent patent applications in single cell analysis

Patent number	Description	Assignee/applicant	Priority application date	Publication date
US20150004687A1	A cell capture device with an inflow tube and an inflow port arranged in a position outside the observation area, when viewed from the normal line direction of the filter. Useful for capturing circulating tumor cells contained in peripheral blood.	Hitachi Chemical Company (Tokyo), Tokyo University of Agriculture and Technology (Tokyo)	1/5/2012	1/1/2015
US8906669B2	A sequential flow microfluidic device with a capture chamber allowing particles provided within the fluid to be collected, and a method for effecting cell or molecular analysis. For use in biomimetic analysis and sample treatment of a fluid in a living organism.	Dublin City University (Dublin), Dimov I, Kijanka G, Lee L, Ducree J	10/9/2009	12/9/2014
US20140356884A1	A microfluidic device comprising a first fluidic channel, a second fluidic channel, a discontinuously porous membrane having pores and binding moieties; useful for capturing particles, e.g., mammalian or bacterial cells.	Mittal S, Toner M	8/23/2011	12/4/2014
US8889168B2	Biocompatible stem cell capture and immobilization coatings comprising a solid surface having a film of nonpolar liquid disposed on it. Useful as, e.g., medical implant devices and scaffolds for tissue growth and bone growth.	Spedden RH, Bioactive Surgical (Clarksville, MD, USA), Borch W, Qiu J	8/7/2008	11/18/2014
US20140335604A1	A device for staining suspended cells composed of a cannula, a pushrod, a plunger sealing pad and a capture membrane; for use in staining suspended cells, effectively overcoming the drawbacks in current existing methods, such as high failure rates, low accuracy and repeatability, and being very time-consuming.	Wuhan Cell Marker & Machine Tech. Co. (Hubei, China)	10/19/2011	11/13/2014
US8837802B2	An image analysis system with an acquisition module, image capturing module and multispectral image-reproduction module to re-treat a sharpened enlarged image of a suspected cancerous cell captured from the capturing unit. Useful for identifying cancerous cells.	Jen C-P, Wang H-C, National Chung Cheng University (Chiayi, Taiwan), Lin T-C, Huang C-T, Hsiao J-H, Chien T-W	3/12/2012	9/16/2014
EP2771667A1	A sample transfer apparatus with an accelerator chamber with an entrance end spaced out from the discharge end of a decelerator tube, and an outlet end that is displaced downstream of the entrance end to define a flow acceleration channel; useful for mass cytometry.	Fluidigm Canada (Markham, Ontario, Canada)	10/26/2011	9/3/2014
EP2769204A2	A cell capture system comprising a fluid-permeable, planar membrane comprising an exposed first surface and a register associated with the membrane that permits the determination of the location of cells retained on at least a portion of the planar membrane. Used in determining the presence and/or amount of cells, for example, viable cells, in a liquid sample.	Charles River Laboratories (Wilmington, MA, USA), ReaMetrix (San Carlos, CA, USA)	5/2/2012	8/27/2014
EP2739587A1	A cell capture system with an outlet manifold that is defined on the broad face of a substrate and connected to an outlet channel.	Denovo Sciences (Plymouth, MI, USA)	8/1/2011	6/11/2014
US20140154703A1	A microfluidic device comprising an input, an output, and an array of obstacles disposed between it and further comprising support pillars; useful for enriching circulating tumor cells.	Skelley A, Smirnov D, Dong Y, Merdek K, Sprott K, Carney W, Jiang C, Huang R, Lupascu I	1/6/2011	2/20/2014

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