

Seminar –February 10th, 15:00
Hörsaal 1, Biomedizinischen Zentrum (BMZ)
Sigmund-Freud-Str. 25, D-53105 Bonn

***“DEPArray: Image-based, targeted, digital cell sorting
for isolation of single cells or pools of cells”***

Dr. Hannes Arnold, Silicon Biosystems

Silicon Biosystems’ DEPArray™ enables the isolation of individual cells or pools of target cells. Cells are gently captured and moved on a semi-conductive chip consisting of 300,000 separately addressable electrodes in dielectric cages (so-called DEP cages). Following the fluorescent signals of cells by labeling e.g. with specific dye-coupled antibodies and by bright field analysis, specific cells of interest can be identified and selected for automated recovery as pure single cells or pools of cells from heterogeneous samples.

The successful use of DEPArray has been demonstrated for the following applications:

- Isolation of rare cells like circulating tumor cells or dendritic cells (fixed or viable)
- Targeted isolation of viable stem cells for downstream proliferation and differentiation *in vitro*
- Targeted isolation of cell pools from heterogeneous samples, like tumor cells from disaggregated formalin-fixed paraffin-embedded samples (FFPE) to analyze tumor heterogeneity

In contrast to conventional methods like laser micro dissection or fluorescence-activated cell sorting (FACS), DEPArray image-based digital cell sorting opens the path for targeted analysis of single cells and target cell pools at high throughput and purity with significantly reduced hands-on times.

This seminar will introduce into the working principles of the DEPArray technology and give examples for different applications in cell sorting. Special focus will be given on the use of the technology for the analysis of tumor heterogeneity

Please find links to a video introducing into the DEPArray technology and to some pdf formatted application notes for DEPArray below.

Video: <http://www.siliconbiosystems.com/depararray-technology>

Application notes: <http://www.siliconbiosystems.com/application-notes>

For further information please contact:

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