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## Master Thesis "Micro magnetophoretic cell sorter"

### Job description:

Micro cell sorter using magnetic force from two magnets has been developed by MEMS technology in order to continuously separate the target cells from mixed suspension such as blood or buffy coat. Micro cell sorter which is composed with two inlets: magnetic beads solution and mixed suspension and two outlets: target cell solution and waste and functions by linear flow in micro channel and magnetic force. Micro cell sorter is designed by analysis of fluid/magnetic simulation, fabricated by MEMS fabrication such as soft lithography, and experimented by biological methods. Recently, a new magnetophoretic cell sorter is adapted by changing from permanent magnets to electric ones with purpose of eliminating interference and distortion of magnetic field from two magnets.

### Tasks:

- MEMS fabrication (UV lithography, Soft lithography)
- Electromagnetic study (Theory, Simulation)
- Cell sorting experiments (Sorting by chip, FACS analysis)

### Qualification:

- Basic MEMS fabrication skill (or) Mechanical engineering

### Start date:

- As soon as possible

**Place of employment:** KIST Europe Forschungsgesellschaft mbH, Campus E 7.1, 66123 Saarbrücken

Interested persons, please contact directly:

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