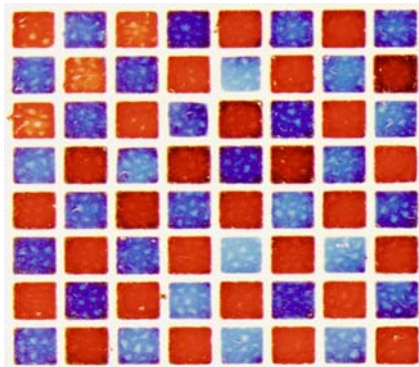


An Intelligent Pen and a Biochip

Helmholtz Association Funds Start-ups of Karlsruhe Institute of Technology



*Like a work of art: Microspots with dyes dissolved in water on the novel biochip of KIT.
(Photo: KIT)*

The Helmholtz Association has given green light for the funding of start-up projects for three new product ideas. Two have been developed by Karlsruhe Institute of Technology (KIT): A pen that helps detect motoric weaknesses of children beginning to write and a miniaturized biochip for cell-based bioresearch will be funded with EUR 100,000 each in the coming year.

At KIT, the engineers Dr.-Ing. Hans-Georg Enkler, Dipl.-Ing. Markus Dickerhof, and Dipl.-Ing. Benjamin Hessenauer from the Institute of Product Development and the Institute for Materials Research III will develop to maturity a pen for children having difficulties in writing. The cooperation partner is the Kinderzentrum Maulbronn (children's center Maulbronn). The pen is equipped with sensors to measure the movements and forces during writing. Physicians and therapists will be enabled to better identify individual problems of children and to provide specific help. The start-up "iuvaris" is aimed at commercializing this product together with adequate learning software.

The second start-up is named "Cell Arrays" and comes from the KIT Institute of Toxicology and Genetics. The founders Dr. Pavel Levkin and Florian Geyer have developed a method to produce novel highly

Monika Landgraf
Press Officer (acting)

Kaiserstraße 12
76131 Karlsruhe, Germany
Phone: +49 721 608-7414
Fax: +49 721 608-3658

**For further information, please
contact:**

Dr. Joachim Hoffmann
Public Relations and
Marketing (PKM)
Phone: +49 7247 82-2860
Fax: +49 7247 82-5080
E-mail: joachim.hoffmann@kit.edu

dense arrays for microsamples in bioresearch. Using these arrays, capacities of more than 50,000 (micro)samples can be reached on standard microtiter plates, such that the complete human genome, for instance, can be studied on a single biochip having the size of a palm. The time and costs needed for the experiments are reduced considerably.

The third start-up project funded by the Helmholtz Association is a robust recording unit for geosignals from the Helmholtz Center Potsdam Deutsches GeoForschungsZentrum GFZ.

The Helmholtz Enterprise Fund provides institutes with funds to finance additional staff in a start-up phase. In this way, researchers can expedite their start-up project without other tasks at the institute remaining unfulfilled. The costs of up to EUR 200,000 per project are borne equally by the Helmholtz Association and the respective Helmholtz center. The funding period is one year.

Karlsruhe Institute of Technology (KIT) is a public corporation and state institution of Baden-Württemberg, Germany. It fulfills the mission of a university and the mission of a national research center of the Helmholtz Association. KIT focuses on a knowledge triangle that links the tasks of research, teaching, and innovation.

This press release is available on the internet at www.kit.edu.

The photo of printing quality may be downloaded under www.kit.edu or requested by mail to pressestelle@kit.edu or phone +49 721 608-7414.



Prototype of the writing pen to diagnose writing problems. (Photo: KIT)

((Bildinschriften im Uhrzeigersinn))

Cable-free data transmission

Microprocessor

Board, power supply

Three distributed force sensors

Acceleration sensors in all three spatial directions

Force sensor

Angular sensors