

**Disrupted Signaling and Disease:
International Metabolism Conference at the German Cancer Research Center**

Scientists from around the globe will convene at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) on November 15th – 16th, 2012 to discuss the links between a disrupted metabolism and various diseases. The conference “Metabolism 2012: From Signaling to Disease” is part of an annual forum series organized in Heidelberg by the DKFZ-ZMBH Alliance, which is a strategic alliance between the German Cancer Research Center (DKFZ) and the Center for Molecular Biology (ZMBH) at Heidelberg University. Professor Stephan Herzig, who heads a joint research department of DKFZ, ZMBH and Heidelberg University Hospital on diabetes and cancer, leads conference organization.

Disrupted signal transduction pathways cause various metabolic disorders such as obesity and diabetes. In diabetes, for example, the insulin signal that tells the cell via its insulin receptor to take up glucose from the bloodstream does not function. This results in a dramatic rise of the blood sugar levels, which causes damage to a number of organs. Chronically increased calorie intake and resulting obesity is associated with excessive production of signaling substances that attract highly active immune cells, which ultimately leads to metabolic malfunctions in various tissues. Disrupted signaling pathways and resulting disruptions in metabolism are more common with increasing age. They are not only the cause of severe metabolic disorders such as diabetes and arteriosclerosis but also a characteristic or even the cause of a number of cancers.

“We have invited the world’s best scientists in this exciting field to Heidelberg to cover the entire spectrum of this topic – from the basics through to treatment ideas,” said Stephan Herzig prior to the conference. Thus, there will be lectures about insulin signaling pathways in *Drosophila* just as about inflammatory signals in obesity. Differences between brown and white fat tissue will be covered just as the role of the innate immune system in energy metabolism. On Friday, there will be sessions dealing with questions of how disrupted metabolic pathways lead to cancer and how this knowledge may be used for novel treatments.

The Manfred Lautenschläger Foundation and the Klaus Tschira Foundation generously support the conference.

Journalists are welcome to attend the conference. For the conference program please go to <http://www.dkfz.de/en/metabolism-2012/program.html>

The German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) with its more than 2,500 employees is the largest biomedical research institute in Germany. At DKFZ, more than 1,000 scientists investigate how cancer develops, identify cancer risk factors and endeavor to find new strategies to prevent people from getting cancer. They develop novel approaches to make tumor diagnosis more precise and treatment of cancer patients more successful. Jointly with Heidelberg University Hospital, DKFZ has established the National Center for Tumor Diseases (NCT) Heidelberg where promising approaches from cancer research are translated into the clinic. The staff of the Cancer Information Service (KID) offers information about the widespread disease of cancer for patients, their families, and the general public. The center is a member of the Helmholtz Association of National Research Centers. Ninety percent of its funding comes from the German Federal Ministry of Education and Research and the remaining ten percent from the State of Baden-Württemberg.

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