

DKFZ awards Dr. Emil Salzer Prize und Richtzenhain Prize to tumor genetics researchers

The German Cancer Research Center (DKFZ) has awarded the Dr. Emil Salzer Prize to Professor Roland Rad (Munich Technical University), whose research focuses on the basic genetic mechanisms underlying bowel cancer. Tumor genomes are also a focus of Professor Stefan Pfister (DKFZ and Heidelberg University) and Professor Roman Thomas (University of Cologne). The latter two scientists received this year's sponsorship award from the Walther and Christine Richtzenhain Foundation. The award ceremony took place on December 16, 2014, at the DKFZ.

All of the scientists' work involved comparisons of healthy tissue and tumor genomes, which usually exhibit a range of genetic changes. A comprehensive analysis of cancer cells allows scientists to identify these mutations and then to characterize their roles in the course of the disease and its treatment. This knowledge can then be used in the development of specific schemes for therapies and drugs tailored to the needs of individual patients.

Professor Stefan Pfister, one of the recipients of this year's Richtzenhain Prize, is studying the genetic characteristics of malignant brain cancer in children. These tumors exhibit an enormous biological heterogeneity – arising from mutations in many different genes – and therefore require customized treatments. Some of the genetic alterations that Pfister identified are already being used in the clinic as biomarkers for disease progression and as prognosticators of a patient's likely response to treatment. Currently a particular focus is to find personalized therapies for children who have undergone intensive treatment but whose cancer has relapsed. Stefan Pfister is chief coordinator of the INFORM project („INdividualized Therapy FOr Relapsed Malignancies in Childhood), which aims to give these children a second chance of survival. Pfister leads the Division of Pediatric Neurooncology at the DKFZ and also works as a pediatrician at the University Medical Center for Children and Adolescents of Heidelberg. In 2013, he received the translational part of the German Cancer Award (Deutscher Krebspreis).

The second Richtzenhain Prize recipient is **Professor Roman Thomas**, who heads the Department of Translational Genomics at the University of Cologne and is a collaborator in the German Consortium for Translational Cancer Research (DKTK). He was also honored with the German Cancer Award in 2013 for his achievements in translational cancer research. Those accomplishments include identifying previously unknown genetic alterations that are responsible for the growth of squamous cell carcinomas in the lung. Thomas and his team succeeded in unraveling the key mechanisms responsible for the malignant transformation of cells in this type of tumor. Those results allowed the researchers to derive novel markers to identify patients who would benefit from treatment with specific targeted drugs.

The Walther and Christine Richtzenhain Award is awarded annually by DKFZ on behalf of a foundation established by Richtzenhain and his wife Christine. The award is granted to scientists working in the field of translational cancer research, which aims to translate promising research findings from the bench to bedside. It is given one year to PhD students at research institutes located in Heidelberg and the next, like this year, to scientists across Germany. This year's prize totals €10,000.

The 2014 Dr. Emil Salzer Prize has been awarded to **Professor Roland Rad** from Klinikum Rechts der Isar of Munich Technical University. In addition to his work at the Department of Medicine II, Rad also leads a research group at the Munich partner site of the DKTK. Rad, too, is being recognized for research in the field of tumor genetics. With his team, he developed special genetic systems in animal models that up new avenues for genome-wide studies of fundamental aspects of tumor development, metastasis and resistance to therapy. For example, in Rad's research into tumors of the hematopoietic system, the bowel and the pancreas, he discovered new genes that play a role in the onset of cancer. His group was able to show how these genes turn benign cellular growths into malignant cancer.

The Dr. Emil Salzer Prize, which currently comprises €5000, is awarded by the DKFZ on behalf of Baden-Wuerttemberg's Ministry of Science, Research and the Arts. It was established by Emil Salzer, a physician and scientist from Reutlingen, Germany. Salzer left his bequest to the State of Baden-Wuerttemberg under the condition that the proceeds be used to support cancer research.

A picture for this press release is available at:

www.dkfz.de/de/presse/pressemitteilungen/2014/bilder/salzer-richtzenhain-2014.jpg

Source: Tobias Schwerdt, DKFZ

Caption: From the left: Prof. Dr. Stefan Pfister, Prof. Dr. Roland Rad, Prof. Dr. Roman Thomas

The German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) with its more than 3,000 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. The staff of the Cancer Information Service (KID) offers information about the widespread disease of cancer for patients, their families, and the general public. 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. In the German Consortium for Translational Cancer Research (DKTK), one of six German Centers for Health Research, DKFZ maintains translational centers at seven university partnering sites. Combining excellent university hospitals with high-profile research at a Helmholtz Center is an important contribution to improving the chances of cancer patients. DKFZ is a member of the Helmholtz Association of National Research Centers, with ninety percent of its funding coming from the German Federal Ministry of Education and Research and the remaining ten percent from the State of Baden-Württemberg.

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