

Award-Winning Research on Childhood Brain Tumors

Accomplishments in research on the molecular genetics of childhood brain tumors at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) have recently been recognized by two separate awards. Dr. Stefan Pfister and Dr. Andrey Korshunov won the Fritz Lampert Award for their work on the analysis of genetic alterations in ependymoma. Dr. Hendrik Witt was distinguished with the AACR-GlaxoSmithKline Clinical Cancer Research Scholar Award for his discovery of epigenetic alterations known as methylation patterns in pilocytic astrocytoma.

The Fritz Lampert Award is an annual award for the best groundbreaking research work in pediatric hematology and oncology in German-Russian speaking countries. The TRANSAID Foundation for Children with Cancer has chosen Dr. Stefan Pfister and Dr. Andrey Korshunov as award winners in 2011. In their research on ependymoma, which is the second most frequent brain tumor in children, the two scientists have discovered characteristic changes in the chromosomes. These individual differences allow very accurate conclusions to be made about disease progression. These results may help to spare young patients various stressful treatments.

The €10,000 award was presented in Moscow on the occasion of the inauguration of the Federal Scientific-Clinical Center for Pediatric Hematology, Oncology and Immunology. After a building time of five years, the Russian capital now has one of the largest and most modern pediatric cancer hospitals in Europe. Dr. Pfister is head of the research group on Molecular Genetics of Pediatric Brain Tumors at DKFZ and also works at Heidelberg University Children's Hospital. For almost ten years now, he has been collaborating with the Burdenko Institute of Neurosurgery in Moscow. Dr. Korshunov previously worked there, before he joined the Clinical Cooperation Unit Neuropathology of DKFZ and Heidelberg University Hospitals three years ago. Radiotherapy and chemotherapy for young cancer patients who were previously taken care of at the Burdenko Institute will now be performed at the new Center.

Dr. Hendrik Witt, who also works in the research group on Molecular Genetics of Childhood Brain Tumors, has been distinguished by the American Association for Cancer Research (AACR) this year. He is the winner of the \$2,000 AACR-GlaxoSmithKline Clinical Cancer Research Scholar Award. This is an annual award of the AACR to honor young scientists for their clinical research. Witt has identified specific epigenetic changes called methylation patterns in the DNA of pilocytic astrocytoma, which is the most frequent brain tumor in children. The type of methylation facilitates predictions about how the cancer will progress.

Since the risk for many types of cancer increases with age, society rarely notices that every year hundreds of children are affected by brain tumors. Precisely for these young patients, who often have to struggle with the consequences of the tumor and the late effects of aggressive therapy for the rest of their lives, it is particularly important to have individually tailored treatments. This is what makes these two research results so valuable. Their findings about molecular markers which characterize treatment response and, thus, help determine the intensity of required cancer treatment, promote increased survival rates with less late effects.

A picture of Dr. Hendrik Witt being presented the award is available on the Internet at:
www.dkfz.de/de/presse/pressemitteilungen/2011/images/Witt-Preisverleihung.jpg

Andrey Korshunov, Hendrik Witt, Thomas Hielscher, Axel Benner, Marc Remke, Marina Ryzhova, Till Milde, Sebastian Bender, Andrea Wittmann, Anna Schöttler, Andreas E. Kulozik, Olaf Witt, Andreas von Deimling, Peter Lichter and Stefan Pfister: Molecular Staging of Intracranial Ependymoma in Children and Adults. *Journal of Clinical Oncology* 2010 Jul 1; 28(19): 3182-90. Epub 2010 Jun 01. DOI:10.1200/JCO.2009.27.3359

The German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ), employing over 2,500 staff members, is the largest biomedical research institute in Germany. More than 1,000 scientists are working to investigate the mechanisms of cancer development, identify cancer risk factors and develop new strategies for better cancer prevention, more precise diagnosis and effective treatment of cancer patients. In addition, the staff of the Cancer Information Service (KID) provides information about this widespread disease for patients, their families, and the general public. DKFZ is funded by the German Federal Ministry of Education and Research (90%) and the State of Baden-Wuerttemberg (10%) and is a member of the Helmholtz Association of National Research Centers.

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