

Award-winning young researchers at DKFZ

Four young researchers from the German Cancer Research Center (DKFZ) have simultaneously been honored with science awards. Dr. Irène Baccelli and Dr. Dominik Sturm shared the €4,500 Richtzenhain Award. Dr. Baccelli also received half of the €7,500 Lewenz Award, the other half of which was shared by Natalie Jäger and Dr. David Jones. The award ceremony took place on December 17, 2013, at the DKFZ.

Metastases that originate from a tumor are often much more dangerous than the primary tumor. Irène Baccelli proved for the first time that metastases may originate from specific tumor cells that resemble to stem cells and travel to other organs through the bloodstream. Baccelli also discovered several molecules that occur at increased levels on the surface of metastasis-forming tumor stem cells. Researchers may be able to use these molecules to develop tests for detecting metastatic stem cells or novel drugs. Baccelli has now been honored for these discoveries with two awards, the Richtzenhain Award and the Lewenz Award, which she shares with other researchers and receives half of the accompanying monetary awards, for a total €6000. Baccelli studied in Paris and did her PhD at the Heidelberg Institute for Stem Cell Technology and Experimental Medicine (HI-STEM), a joint project of DKFZ and the Dietmar Hopp Foundation. Dr. Irène Baccelli is currently conducting research at the University of Montreal, Canada.

Dominik Sturm, a medical researcher, discovered another potential target for future cancer therapies during his PhD thesis. The work concerned an enzyme that may protect cancer cells from cell death and is overactive in cases of dangerous pediatric brain cancer. Sturm studied medicine at the Universities of Freiburg and Heidelberg. Since 2011, he has been a staff scientist at the Department of Pediatric Neurooncology at the DKFZ, which is headed by Professor Stefan Pfister. Since 2013, he has also worked as a physician at the Department of Pediatric Hematology and Oncology of Heidelberg University Hospitals. The Richtzenhain Award is the third distinction he has received for his PhD thesis.

Modern technology has made it possible to decipher the complete genome of a cell. The biggest problem is to evaluate the gigantic amount of data that this process generates. Natalie Jäger examined the genomes of over 400 tumor samples from various types of cancer, with the goal of identifying changes that occur over the course of tumor development. She discovered that the second, inactive X chromosome in female cells is particularly often affected by such changes. David Jones, who has specialized in pediatric brain cancer, discovered that a number of mutations occur in the same genes in different patients. This suggests that the genes may serve as targets for new drugs.

For their work, Natalie Jäger and David Jones have been awarded the other half of the Lewenz Award, or €1,875 each. Jäger studied bioinformatics at Frankfurt University and subsequently received a one-year research fellowship at Harvard University in Cambridge, U.S.A. Since 2010, Jäger has undertaken research as a PhD student at the DKFZ in the Division of Theoretical Bioinformatics, headed by Professor Roland Eils. Jones, her colleague, studied at the University of Cambridge, U.K., where he received his PhD with a special focus on genetics. In 2010, he joined the DKFZ in Heidelberg as a staff scientist in Stefan Pfister's group.

The Walther and Christine Richtzenhain Award is awarded annually by DKFZ on behalf of a foundation established by neurologist Walther Richtzenhain and his wife. This year, the call for proposals was open to work carried out at research institutes located in Heidelberg. The

award recognizes young scientists who have carried out excellent, pioneering work in the field of translational cancer research. The Waltraud Lewenz Award is named after a chemistry and mathematics high school teacher from Wiesbaden, Germany, who died from cancer in 1999 at the age of 58. The award is part of her bequest and is awarded biannually for outstanding research at DKFZ in the areas of “Cancer Risk Factors and Prevention” and “Diagnostics and Experimental Therapy”.

A picture for this press release is available at:

www.dkfz.de/de/presse/pressemitteilungen/2013/images/Preistraeger-richtzenhain-lewenz-2013.jpg

Caption:

The award winners (from left to right): Dr. Irène Baccelli, Dr. David Jones and Dr. Dominik Sturm at the award ceremony. Not in the picture: Natalie Jäger.

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. 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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