

2010 Meyenburg Award for Discoverer of BRCA 2 Breast Cancer Gene

The 2010 Meyenburg Award with an award sum of €50,000 goes to British biochemist and breast cancer specialist, Alan Ashworth. He is distinguished for developing a whole new type of cancer therapy. The use of so-called PARP inhibitors in breast cancer patients with altered BRCA1 and BRCA2 breast cancer genes in their tumor tissue is considered a breakthrough in cancer treatment. The Meyenburg Award will be presented on Monday, October 11, 2010 during a symposium at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) in Heidelberg.

So far, treatment of cancer patients has been based primarily on surgical, radiotherapeutic and cytotoxic methods which, however, are often associated with side effects. Our growing understanding of molecular processes in cancer cells makes it increasingly possible to develop targeted drugs. To this end, Alan Ashworth has made use of a principle called synthetic lethality. Developed over 60 years ago, this genetic concept makes it possible to target cancer-specific alterations in cells.

Alan Ashworth discovered the BRCA2 breast cancer gene jointly with colleagues in 1995. In a healthy state, breast cancer genes BRCA 1 and 2 are responsible for repairing defects in the genetic material. If they are altered, this leads to further genetic mutations, which may eventually lead to cancer. Ashworth was able to show that tumor cells with mutations in the BRCA1 or BRCA2 gene have a much greater sensitivity to blocking an important repair enzyme called poly(ADP-ribose) polymerase (PARP) than healthy cells. The use of PARP inhibitors results in gross genomic instability and, eventually, tumor cell death. By contrast, cells without this genetic defect are not damaged by PARP inhibitors, so that these may be used for selective destruction of cancer cells. Thus, Ashworth's PARP inhibitors are a whole new type of tumor therapy based on targeted interference with DNA repair mechanisms. First clinical trials have delivered promising results and the findings obtained are of interest not only for breast cancer but also for other types of cancer.

Alan Ashworth, born in 1960, is Director of the Breakthrough Breast Cancer Research Centre at the Institute of Cancer Research in London. Since his appointment as director in 1999, the Centre has evolved into a globally leading research institute. In addition, Alan Ashworth is among those responsible for the Breakthrough Generation Study, one of the most comprehensive and largest studies on the causes of breast cancer with more than 100,000 participants. In January 2011, he will become Chairman of the Institute of Cancer Research in London. In 2008, Alan Ashworth was elected a Fellow of the Royal Society and in September 2009 he was honored with the Lifetime Achievement Award of the European Society of Medical Oncology.

On the occasion of the award ceremony, the Meyenburg Foundation holds a scientific symposium on cancer genome and breast cancer research at DKFZ.

Dr. Marion Meyenburg, daughter of founders Wilhelm and Maria Meyenburg, will present the award to Alan Ashworth at the end of the symposium. The Meyenburg Award honors outstanding achievements in cancer research and cancer treatment. Established in 1981, it is awarded annually and is one of Germany's science prizes with the highest award sums. The value of this distinction is also highlighted by the fact that several Meyenburg laureates have been awarded the Nobel Prize for Medicine. Dr. Elizabeth Blackburn, Meyenburg laureate in 2006, was awarded the Nobel Prize for Medicine in 2009. Dr. Andrew Fire, Meyenburg Award winner of 2002, was awarded the Medicine Nobel Prize in 2006.

Date: Monday, October 11, 1 p.m. to 5:30 p.m.
Communication Center (KOZ) of the German Cancer Research Center (DKFZ)

Journalists and interested members of the public are very welcome to attend.

For a picture of the award winner please click:
www.dkfz.de/de/presse/pressemitteilungen/2010/images/Alan_Ashworth.jpg

The German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) is the largest biomedical research institute in Germany and is a member of the Helmholtz Association of National Research Centers. More than 2,200 staff members, including 1,000 scientists, are investigating the mechanisms of cancer and are working to identify cancer risk factors. They provide the foundations for developing novel approaches in the prevention, diagnosis, and treatment of cancer. In addition, 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 funded by the German Federal Ministry of Education and Research (90%) and the State of Baden-Württemberg (10%).

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