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2010 Felix Burda Award Goes to DKFZ Researcher

Since 2003, the Felix Burda Foundation has recognized the most successful, most innovative and outstanding projects in the area of colon cancer prevention with the Felix Burda Award in March's Bowel Cancer Awareness Month. This year's award winners were selected by independent expert jurors and were announced yesterday, on April 18th, at a gala event with numerous celebrity guests. The award in the category "Medical Prevention" went to DKFZ researchers for their evaluation of various tests for early colon cancer detection.

The Felix Burda Award is awarded in five categories. Ulrike Haug, Sabrina Hundt and Hermann Brenner of the Division of Clinical Epidemiology and Aging Research at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) received the prize of \in 10,000 in the Medical Prevention category for a project on the evaluation of new fecal occult blood tests for the early detection of colorectal cancer. The researchers had tested various immunological fecal occult blood tests and an enzymatic test for their diagnostic value. Their aim was to find out which of the methods is most suitable for early colon cancer detection.

Statutory health insurances in Germany offer a fecal occult blood test free of charge for all insured persons from the age of 50. This test can detect precursors of colorectal cancer. However, tests offered up to now have been very unreliable. Persons from the age of 55 are additionally entitled to receive a colonoscopy. Although this examination detects cancer precursors with high certainty, only 30 percent of those entitled to it actually take advantage of this possibility. "Therefore, tests for occult blood in the stool are still important, because people's readiness to take a simple laboratory test is much higher. But we need tests which better identify colon cancer precursors," says Professor Hermann Brenner.

In recent years, new immunological methods have been developed to this end. To evaluate these, the DKFZ researchers screened stool samples of 1,319 individuals in 2006 and 2007 before their scheduled screening colonoscopy. All samples were tested with the conventional fecal occult blood test, with six different immunological tests and with the tumor M2-PK test. The test results were then compared with the colonoscopy results.

All immunological tests detected colorectal precancerous lesions much more frequently than the conventional fecal occult blood test. However, a number of them still yielded too many false-positive results. Prior to any large-scale use of these tests in bowel cancer screening, their sensitivity threshold would need to be corrected. The DKFZ researchers have already started research in this direction. Furthermore, they concluded that the test for M2-PK is very limited in its ability to detect whether cancer precursors are present or not.

"With this study, we aim to help clarify which fecal occult blood tests should be covered by the statutory health insurances as a prevention measure and which further preparatory work is required for this," said Professor Hermann Brenner explaining his research goals.

A picture is available on the Internet at: <u>http://www.dkfz.de/de/presse/pressemitteilungen/2010/images/Burda.jpg</u> (from left to right: Prof. Dr. Hermann Brenner, Dr. Ulrike Haug, Dr. Sabrina Hundt, Prof. Dr. Wolff Schmiegel) Picture source: Felix Burda Stiftung 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 2,000 staff members, including 850 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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