

European Research Council Awards a €1.5 Million Grant to DKFZ Scientist

The European Research Council will support Dr. Aurelio Teleman and his working group 'Signal Transduction in Cancer and Metabolism' with a €1.5 million grant. The money is provided as a Starting Grant by the Research Council to support the young scientist in his study of genes regulating cell growth. The goal of the funded project is to study the TOR gene, which is substantial in regulating cell growth, and its role in cancer. "We are very proud, of course, to be awarded the renowned ERC Starting Grant," says Teleman. "We will use the money to create new positions for doctoral students in our lab and offer young researchers supreme conditions for their research."

A key characteristic of cancer is rapid and uncontrolled cell growth. The point where an individual cell ceases to grow depends on the signals it gets from other cells surrounding it. The biological mechanisms of this cell-to-cell communication are largely unknown. In order to understand how cancer develops we first need to understand processes in healthy tissue. Scientists in Teleman's department are working with the fruit fly *Drosophila*, because regulation of cell growth is very similar in flies and in man. In addition, there are many genetic tools to obtain rapid results in the study of gene functions. "We're trying to transfer our findings about cell growth in *Drosophila* to the human system," says Teleman. "First we will turn off individual genes in the fly and observe the effects. Then we will compare the results with those of human tissue cultures."

The goal of the ERC funded project is to study the TOR gene and its role in cancer. TOR is involved in the formation of proteins and fatty acids which are essential for cell growth. If TOR is active, cells will grow. If it is inactive, cell growth will cease, too. Almost all human tumors have a hyperactive variant of TOR. Hence, the genes regulating TOR are very likely to play an important role in the onset of cancer.

Dr. Aurelio Teleman was born in 1976 in Boston, Massachusetts, and studied biochemistry at Harvard University. Following his doctoral thesis, which he finished at the European Molecular Biology Laboratory in Heidelberg, and a post-doctoral position, he started working as a junior research group leader at DKFZ in 2007.

The ERC Starting Independent Researcher Grant supports young researchers in the early stages of their career. ERC supports scientists in building their own working groups in Europe. Funds between 1.5 and two million euros are provided over a five-year period.

A picture for this press release is available on the Internet at:
<http://www.dkfz.de/de/presse/pressemitteilungen/2010/images/Teleman.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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