

PRESS RELEASE

Vijay Tiwari receives Wilhelm Sander-Stiftung Award 2015

12 June 2015. Dr. Vijay Tiwari of the Institute of Molecular Biology (IMB) in Mainz is awarded the "Förderpreis der Wilhelm Sander-Stiftung" in celebration of the foundation's 40th anniversary. The prize recognises the contribution of promising young biomedical researchers in Germany, and will be awarded at the Wilhelm Sander Foundation's 40th anniversary celebrations on 12 June in Munich, in the presence of Nobel laureate Professor Harald zur Hausen. The award includes financial support for further research and scientific purposes.

Dr. Vijay Tiwari is a Group Leader at the Institute of Molecular Biology at Johannes Gutenberg University Mainz, Germany, where he and his team are researching the cellular processes underlying development and cancer.

Ordinarily, cells in the body have a clear identity, e.g., a cell in your skin belongs in the skin and is different to a nerve cell in your brain. In metastatic cancers, tumorous cells have lost this tissue identity, and are able to move to other parts of the body, where they can form new tumours.



Dr. Vijay Tiwari Image credit: Thomas Hartmann

The opposite process happens in development, where cells become gradually more specialised as an embryo develops. For example, neuronal cells only start to form a few days after fertilisation of a human embryo.

Dr. Vijay Tiwari is investigating the mechanisms that drive a cell to change from a regular to a metastatic cell, or from a general embryonic cell to a more specialised neuronal type in development. His group is using state-of-the-art computational and molecular biology tools together with cutting-edge epigenetics and genomics techniques to investigate these processes.



Epigenetic processes are essential during development and are misregulated in disease. Epigenetic regulation plays a critical role in specifying what type a cell will turn into during development, such as generating neurons, and then in maintaining its identity throughout life. If epigenetic pathways go wrong, this can affect cell identity and lead to diseases, such as cancer.

Epigenetic mechanisms involve changes to the genome that control which genes are turned on or off, but that are not encoded in the DNA sequence itself. These changes can be triggered by

environmental factors, and can be inherited from one generation to the next. This is a very hot topic at the moment because being able to change how genes are turned on and off without having to interfere with the basic composition of DNA could lead to new treatments for cancer and a range of other diseases.

The Wilhelm Sander Foundation has already recognised the value of Dr. Vijay Tiwari's research by providing his group with funding of approximately EUR 300,000 to date. This award and the EUR 20,000 prize money associated with it for use in further research and scientific purposes reinforce the foundation's support for Tiwari's research.

Further details

Further information about Dr. Vijay Tiwari's research can be found at <u>www.imb.de/tiwari</u>.

The Wilhelm Sander-Stiftung, which is located in Bavaria, was founded in 1974 as part of the legacy of the entrepreneur Wilhelm Sander. Today it plays a leading role in funding medical research in Germany. Since its establishment, it has invested about EUR 220 million in research, in particular in applied cancer research. On 12 June 2015, the foundation will mark its 40th anniversary with a celebratory ceremony, at which the awards for young researchers will be presented.

Further information about the Wilhelm Sander-Stiftung can be found here: <u>www.sanst.de</u>, Email: <u>info@sanst.de</u>

About the Institute of Molecular Biology gGmbH

The Institute of Molecular Biology gGmbH (IMB) is a centre of excellence in the life sciences that was established in 2011. Research at IMB concentrates on three cutting-edge areas: epigenetics, developmental biology, and genome stability. The institute is a prime example of a successful collaboration between public authorities and a private foundation. The Boehringer Ingelheim Foundation has dedicated EUR 100 million for a period of 10 years to cover the operating costs for research at IMB, while the state of Rhineland-Palatinate provided approximately EUR 50 million for the construction of a state-of-the-art building. For more information about IMB, please visit: www.imb.de.

About the Boehringer Ingelheim Foundation

The Boehringer Ingelheim Foundation is an independent, non-profit organisation committed to the promotion of the medical, biological, chemical, and pharmaceutical sciences. It was established in 1977 by Hubertus Liebrecht (1931-1991), a member of the shareholder family of the company Boehringer Ingelheim. Through its PLUS 3 Perspectives Programme and Exploration Grants, the foundation supports independent group leaders; it also endows the internationally renowned Heinrich Wieland Prize as well as awards for up-and-coming scientists. The foundation has granted EUR 100 million over a period of ten years to finance the scientific activities of the Institute of Molecular Biology (IMB) at Johannes Gutenberg University Mainz (JGU). For more information about the foundation and its programmes, please visit <u>www.boehringer-ingelheim-stiftung.de</u>.

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