PRESS RELEASE



Honorary Professorship for IMB's Christoph Cremer

November, 2013. Christoph Cremer, a Group Leader at the Institute of Molecular Biology (IMB), has received an honorary professorship at Johannes Gutenberg University, Mainz (JGU). The appointment recognizes Cremer's pioneering work in the development of superresolution microscopy methods for analyzing the structure of the genome within cell nuclei. IMB is situated on the JGU campus and has close collaborations with the university.

The position was conferred earlier this fall by Rheinland-Palatinate Minister-President Malu Dreyer, followed by a formal ceremony presided over by Prof. Dr Wolfgang Hofmeister, JGU's Vice President for Research. With the appointment, Cremer will expand his teaching duties at JGU, which already encompass lectures in biomedical optics and physics as well as teaching contributions to IMB's International PhD Programme in the *Dynamics of Gene Regulation, Epigenetics and the DNA Damage Response*.



Figure 1. Two types of nuclear proteins in a cancer cell nucleus, imaged by epifluorescence microscopy (left) and two-color superresolution microscopy (right). Image from Gunkel et al., 2009.

"The facilities and people at JGU are truly excellent, and I'm delighted to continue my work in this fascinating field at both IMB and JGU," said Prof. Cremer. For more than four decades, he has worked to develop microscopy methods that will allow us to peer deeper into cells and their nuclei than ever before. Cremer was one of the first to conceptualize confocal laser scanning microscopes and 4Pi, or focused superresolution, microscopes in 1978. He was also instrumental in the realization of this latter microscope in the 1990s. His lab has achieved optical resolutions of biological structures down to five nanometers, rivaling electron microscopy methods. Using this "nanoscopy," Cremer's research group investigates the correlation between the nuclear genome and molecular epigenetics, and its consequences for gene regulation, development, cancer, and radiation biology.



Christoph Cremer received a doctorate in biophysics and genetics from the University of Freiburg in 1976. From 1983 to 2011 was professor at the University of Heidelberg, where he directed the research division on Applied Optics and Information Processing within the Institute of Applied Physics and the Kirchhoff Institute of Physics. In 2011 he relocated his research group to IMB in Mainz, where he continues to pursue improvements in superresolution microscopy and its applications to nuclear genomic structure and epigenetics.

Further information about Prof. Cremer's research can be found at <u>www.imb.de/cremer</u>

Prof. Dr Christoph Cremer

About the Institute for 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 DNA repair. The institute is a prime example of a successful collaboration between public authorities and a private foundation. The Boehringer Ingelheim Foundation has dedicated 100 million euro for a period of 10 years to cover the operating costs for research at IMB, while the state of Rhineland-Palatinate provided approximately 50 million euro for the construction of a state-of-the-art building. For more information about IMB please visit <u>www.imb.de</u>

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 100 million euro over a period of ten years to finance the scientific activities of the Institute of Molecular Biology (IMB).

For more information about the foundation and its programmes, please visit <u>www.boehringer-ingelheim-stiftung.de</u>

Press contact for further information

Dr Ralf Dahm, Director of Scientific Management Institute of Molecular Biology gGmbH (IMB) Ackermannweg 4, 55128 Mainz, Germany Phone: +49 (0) 6131 392 1455 Fax: +49 (0) 6131 392 1421 Email: press@imb.de