BNC BAYER NEWS CHANNEL

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Hansen Family Award 2011 Goes to Professor Stefan Hell

Bayer Foundation Awards Prestigious Scientific Prize

Berlin. This year's winner of the Hansen Family Award is Professor Stefan W. Hell from the Max Planck Institute for Biophysical Chemistry in Göttingen and the German Cancer Research Center in Heidelberg. The Bayer Science and Education Foundation awarded the coveted scientific prize to the 48-year-old research scientist for his breakthroughs in the field of microscopy.

At the award ceremony (from left): Bayer CEO Dr. Marijn Dekkers, Chairman of the foundation's Board of Trustees Professor Ernst-Ludwig Winnacker, Professor Stefan W. Hell and Bayer Management Board member responsible for research Dr. Wolfgang Plischke. Click on the picture to launch the film.

Prize-winner | **Award** | **Foundation**

The Hansen Family Award winner Professor Stefan W. Hell studied physics in Heidelberg and obtained his doctorate under Professor Hunklinger in 1990. This was followed by a postdoctoral period at the European Molecular Biology Laboratory (EMBL) in Heidelberg and a three-and-a-half-year period at Turku University in Finland and Oxford University in the United Kingdom. In 1996, Hell qualified as a professor of physics at Heidelberg University. Until 2002, he was in charge of an independent research group at the Max Planck Institute for Biophysical Chemistry in Göttingen. In 2002, he was appointed a director of the institute and took charge of the Department of NanoBiophotonics. Since 2003, Hell has also been head of the Department of Optical Nanoscopy at the German Cancer Research Center and adjunct professor of physics at Heidelberg University. Since 2004, he has lectured at the University of Göttingen as honorary professor of experimental physics. Hell's other accolades include the "Deutscher Zukunftspreis" (German Future Prize) for innovation and technology awarded by the

German President (2006), the Gottfried Wilhelm Leibniz Prize from the German Research Foundation (2008) and the Otto Hahn Award for physics (2009).

Professor Hell's discoveries led to a new class of light microscopes that can probe far deeper into the molecular scale of life. Dr. Marijn Dekkers, Chairman of the Board of Management of Bayer AG, and Dr. Wolfgang Plischke, the Board member responsible for Innovation, Technology and Environment, presented the winner with his award worth EUR 75,000 at a ceremony in Berlin.

Dekkers said that Professor Hell's work is impressive evidence of the high standard of scientific research in Germany. His discoveries in the field of light microscopy have made it possible to gain insights into living cells and tissue that until recently would have been inconceivable.

Reliable framework

At the same time, the Bayer CEO issued an urgent call for a reliable legal and political framework for research-based companies in Germany: "For instance, not only does it cost more than a billion euros to develop a new drug, it also takes eight to 10 years. We must decide today about key investments, but it is only after a decade or so – if at all – that we will see any success. We thus have to make a decision today about an investment without knowing what the expectations of society and the political situation will be when the product reaches the crucial phase." Dekkers urged politicians and society to consider how much value they place on the health – or longer life – of individuals. According to him, that also applies to the lack of acceptance of new technologies. "So much time is spent talking about risks that the opportunity often passes by," said Dekkers.

At the ceremony, Plischke – the Bayer Management Board member responsible for research – commented on the decision by the Board of Trustees and praised the winner's achievements: "Professor Hell was absolutely convinced he could overcome the diffraction limit of light for light microscopes established by Abbe. With the help of physics, he has crossed a seemingly insurmountable barrier and achieved a result that is extremely helpful for the fields of medicine and biology."

Professor Ernst-Ludwig Winnacker, Secretary General of the Human Frontier Science Program Organization and Chairman of the foundation's Board of Trustees, also underlined the importance of the prize-winner's work: "With the invention of the microscope at the end of the 17th century, optics already brought about a revolution in biology. However, two points could no longer be resolved if they came to lie closer than half the wavelength of the light. Stefan Hell can now resolve images down to 20 to 50 nanometers in living cells. The dynamism of intracellular activity is now made accessible to us, and it will probably reveal as many new aspects as the first light microscope did 400 years ago."