



# PRESSE- MITTEILUNG

## PROFESSOR JOCHEN GUCK IS THE NEWEST DIRECTOR AT THE MAX PLANCK INSTITUTE FOR THE SCIENCE OF LIGHT

ERLANGEN, ON 1 OCTOBER 2018

With effect from 1 October, the Max Planck Institute for the Science of Light (MPL) in Erlangen has a fifth Director: Professor Jochen Guck (45). Professor Guck and his team of 15 scientists broaden the range of interdisciplinary research at the MPL. Their work focuses on the intersection with biology and medicine. Planning provides that within the next few years, the team will relocate to the Max-Planck-Zentrum for Physics and Medicine (MPZ-PM) that is being established in cooperation with the Friedrich-Alexander University of Erlangen-Nuremberg (FAU) and the University hospital in Erlangen. MPL's Head of Administration Dr. Dorothe Burggraf explains: "The summoning of Professor Jochen Guck to our Institute, marks an important milestone for the field of biophotonics. His interest in the intersection between physics and biology as well as biomedical sciences, leads the way for the entire Max-Planck-Gesellschaft in the area of innovative and international cutting-edge research in the field of biophysics and diagnostics."

Guck does not focus on molecules but on cells. He considers biology a physical process, whose parameters he translates into diagnostic statements. To do so, he and his team venture deeply into the area of optical physics. He strives to improve methods and to find applications in the clinical field. In the past, Professor Guck has developed new methods in biophotonics that allow him to use the rigidity of cells as a biomarker, for example for differentiating between malign and infected cells. For this purpose he used an optical trap (optical stretcher) that he developed, and that is similar to the one for which Arthur Ashkin has just received a Nobel Prize in physics. He also examines the mecha-



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Neuer Direktor am Max-Planck-Institut:  
Professor Jochen Guck

nisms of cells using atomic force microscopes and methods from the area of Real-time Deformability Cytometry (RT-DC), as well as Brillouin microscopy and optical diffraction tomography. Jochen Guck: "The Max Planck Institute provides me with the opportunity to focus on my research under excellent conditions. With the other Directors by my side, it is the perfect catalyst of innovation!"

"We are very happy that Jochen Guck has decided to join the MPL and the new Max-Planck-Zentrum for Physics and Medicine. We have big plans here in Erlangen and Jochen is the perfect choice for this," says Director Professor Vahid Sandoghdar.

Jochen Guck obtained his doctorate in physics from the University of Texas in 2001. Following his work as a junior group leader and scientific assistant at the University of Leipzig up to 2007, he worked as a Lecturer at Cambridge University. In 2012 Guck received the Alexander von Humboldt Professorship for Cellular Machines at the Biotechnological Centre of the TU Dresden. Over the course of his career, he received various awards for his research work in the area of biophysics. Among these were the "Young Scientists Award" in biomedical photonics by Deutsches Krebsforschungszentrum Heidelberg, the "Cozarelli Award" and the "Paterson Medal".