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Since 2017, this first-rate, interdisciplinary colloquium held at the traditional center of scientific research Berlin-Dahlem, is hosted in cooperation with the Max Planck Society, the legal successor of the Kaiser Wilhelm Society. The lectures address a broad academic public and cover various scientific disciplines influenced by Einstein's thinking.

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October 25, 2018 | 6 p.m.

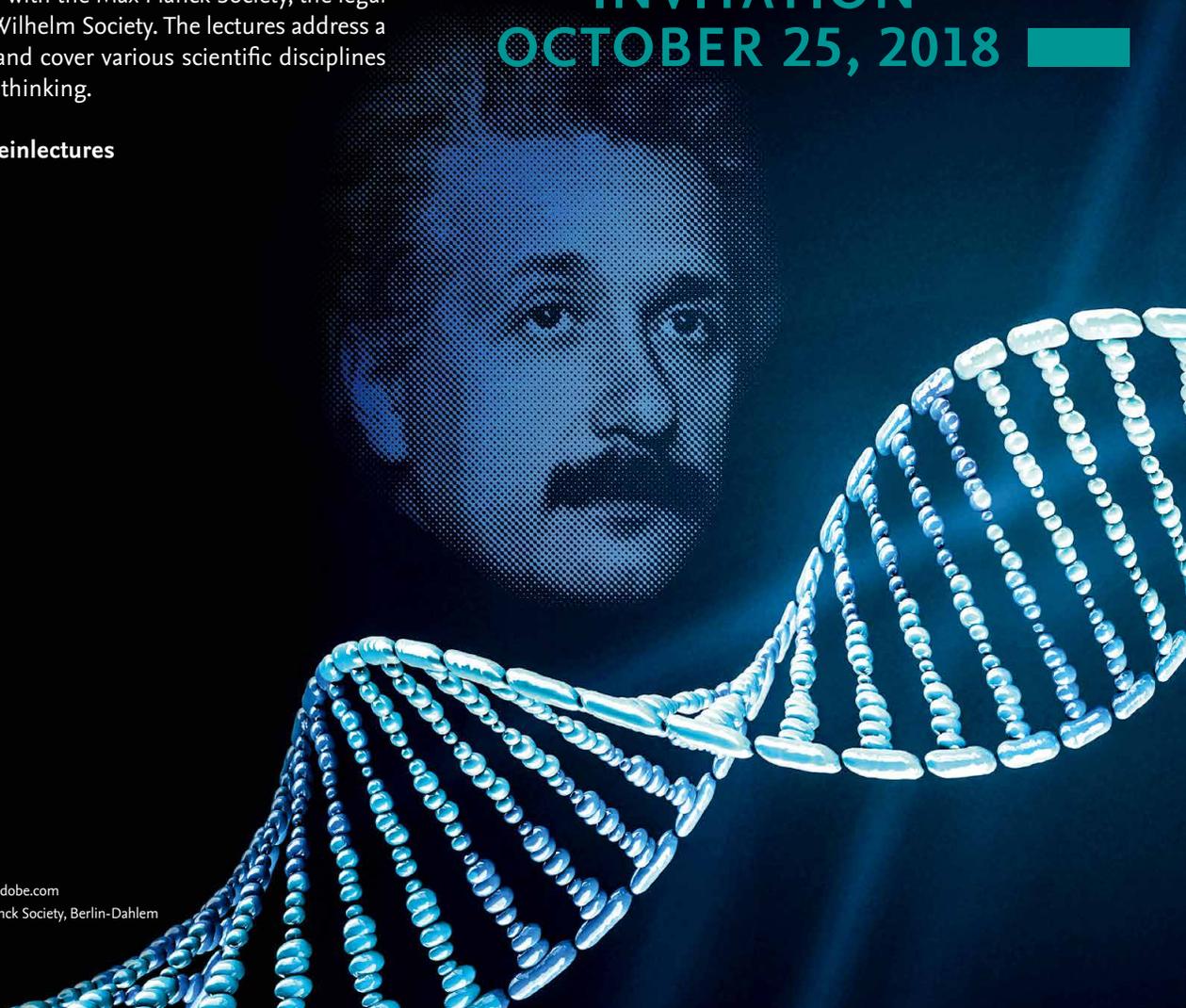
Freie Universität Berlin,
Henry-Ford-Bau, Garystr. 35, 14195 Berlin

Please register by October 20, 2018
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18th EINSTEIN LECTURE DAHLEM INVITATION — OCTOBER 25, 2018



18th Einstein Lecture Dahlem

Welcome | Prof. Dr. Günter M. Ziegler
President of Freie Universität Berlin

Introduction | Prof. Dr. Stefan Mundlos
Institute of Medical Genetics and Human Genetics at
Charité Berlin & Max Planck Institute for Molecular Genetics

CRISPR-Cas9: Transforming life sciences through bacteria

Professor Emmanuelle Charpentier
Max Planck Unit for the Science of Pathogens and
Max Planck Institute for Infection Biology



Professor Emmanuelle Charpentier

Emmanuelle Charpentier, Ph.D., is Founding and Acting Director of the Max Planck Unit for the Science of Pathogens, Scientific Director at the Max Planck Institute for Infection Biology and Honorary Professor at Humboldt-Universität, Berlin. Prior to her current appointments, she was Alexander von Humboldt Professor and Head of Department at the Helmholtz Centre for Infection Research and Professor at the Hannover Medical School, Germany, Associate and Visiting Professor at the Laboratory for Molecular Infection Medicine Sweden (EMBL Partnership), Umeå University, Sweden, and Assistant and Associate Professor at the Max F. Perutz Laboratories, University of Vienna, Austria. Emmanuelle held several research associate positions in the US, at the Rockefeller University, New York University Langone Medical Center and Skirball Institute of Biomolecular Medicine, New York, and St. Jude Children's Research Hospital, Memphis.

She received her education in microbiology, biochemistry and genetics from the University Pierre and Marie Curie and the Pasteur Institute in Paris, France. Emmanuelle has been widely recognized for her innovative research that laid the foundation for the ground-breaking CRISPR-Cas9 genome engineering technology. She has received prestigious international awards

and distinctions and is an elected member of national and international academies. She is cofounder of CRISPR Therapeutics and ERS Genomics.

CRISPR-Cas9: Transforming life sciences through bacteria

The discovery of the CRISPR-Cas9 gene editing technology is considered one of the most important biotechnology breakthroughs of our times. Initially described as a bacterial immune system, the understanding of the CRISPR-Cas9 mechanism led to its development as RNA programmable molecular scissors that can modify DNA and its expression in multiple ways. Similar to a text editing software, the CRISPR-Cas9 technology can correct typos, delete or exchange letters and sentences in the DNA of living cells.

In only six years, CRISPR-Cas9 has developed into one of the most dynamic and fastest-moving fields in life sciences with innovative applications in biotechnology, agriculture and medicine at the horizon.

The lecture by Charpentier will focus on the individual steps of research that ultimately led to the discovery of the CRISPR-Cas9 technology, and on some relevant applications in life sciences.

