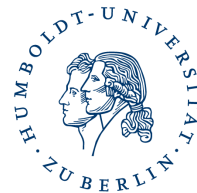


**Press Release**  
7. October 2020



## **Honorary professor at the Humboldt-Universität receives the 2020 Nobel Prize in Chemistry**

Emmanuelle Charpentier receives honour for revolutionary work on the genetic engineering tool CRISPR-Cas9

The Royal Swedish Academy of Sciences is awarding Prof. Dr Emmanuelle Charpentier with this year's Nobel Prize in Chemistry. She is honorary professor at the Department of Biology at the Humboldt-Universität zu Berlin (HU) and director of the Max Planck Unit for the Science of Pathogens. She shares the prize with molecular biologist Jennifer Doudna from the University of California, Berkeley. The honour is being bestowed for research into CRISPR-Cas9. This tool, the so-called "genetic scissors", allows gene sequences to be edited in any cells of living organisms.

"What a fantastic success and important day for female scientists worldwide," says HU President Prof. Dr-Ing. Dr Sabine Kunst. "I am exceptionally pleased that Ms Charpentier has received this prize. At last, a female colleague will once again receive this important honour, and, what's more, an outstanding scientist who is affiliated with the Humboldt-Universität as an honorary professor in research and teaching."

Since 2016, Prof. Emmanuelle Charpentier has been an honorary professor at the Department of Biology in the HU's Faculty of Life Sciences. She holds several honorary doctorates, has received numerous international prizes and accolades, and is a member of international science academies.

Emmanuelle Charpentier is one of the inventors of the genetic scissors CRISPR-Cas9 (clustered regularly interspaced short palindromic repeats), one of the groundbreaking scientific discoveries of recent times. Emmanuelle Charpentier first came into contact with the subject of CRISPR in Vienna. She made it the major topic of her research. In 2011, her working group understood the basic mechanisms of CRISPR-Cas9 and published their work in the journal "Nature". Together with Jennifer Doudna's working group at the University of California, Berkeley, she was able to further develop the mechanism just one year later into a powerful technology that can be used in all living cells – from bacteria to plants, to animals to humans. The study was published in 2012 in "Science".

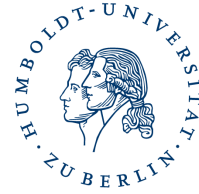
Her research concentrates on basic regulatory mechanisms in processes of infection and immunity, with a focus on Gram-positive bacteria; in particular, she addresses the question of how RNAs and proteins control cellular processes.

**Humboldt-Universität zu Berlin**  
Department of Communications, Marketing and Events  
Media and Communications Office

Unter den Linden 6  
10099 Berlin  
Tel.: +49 30 206329-60  
Fax: +49 30 2093-2107  
[www.hu-berlin.de](http://www.hu-berlin.de)

**Press Spokesman**  
Hans-Christoph Keller  
Tel.: +49 30 206329-60  
[hans-christoph.keller@hu-berlin.de](mailto:hans-christoph.keller@hu-berlin.de)

**Expert database**  
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"We are enormously pleased that this molecular genetic method is receiving such recognition so quickly," says the Dean of the Faculty of Life Sciences, Prof. Dr Bernhard Grimm. "This method has proven to become the standard in molecular biology and it is evident that it will become a valuable method in modern plant breeding. The students are, of course, already being trained in this method at our Department of Biology."

Further information

[Department of Biology \(HU\)](#)

[Press release from the Royal Swedish Academy of Sciences](#)

**Contact**

Hans-Christoph Keller

Press Spokesman for the Humboldt-Universität zu Berlin

Email: [hans-christoph.keller@hu-berlin.de](mailto:hans-christoph.keller@hu-berlin.de)

Phone: 030-2093-12710