

"Meet the Scientist" in Humboldtlabor: How does a flower know it is time to bloom?

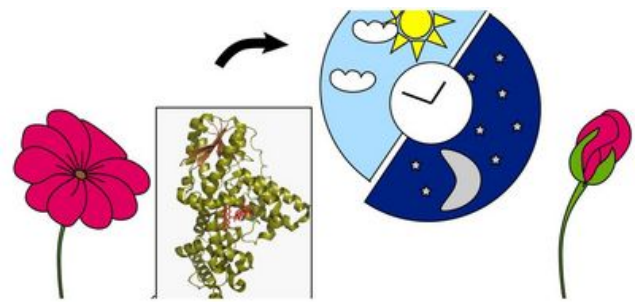
Dr. Sabine Oldemeyer

Freie Universität Berlin

Start Time: Thursday, April 7, 2022

End Time: Thursday, April 7, 2022

Humboldtlabor in Humboldtforum Berlin.



The sun is essential for life on earth – plants, for example, are dependent on it to carry out photosynthesis. To do this effectively, however, the conversion of sunlight into energy must be adjusted to seasons, daytime and other environmental influences. For these fine-tuning processes, plants use certain proteins known as cryptochromes that are sensitive to blue light. They are regulating, for example, the growth of a plant and its flowering time.

Not only in plants but also in algae, insects, and mammals, cryptochromes are responsible for light-induced processes. They perform a variety of functions – from adjusting the day/night-rhythm to detecting the earth's magnetic field.

Biophysicists and biochemists are investigating how these processes take place. One of them is Sabine Oldemeyer. She specialises in a cryptochrome called "aCRY" which is mainly found in green algae and has one special feature: it is able to perceive red light. As part of the series "Meet the Scientist", Dr. Oldemeyer will present her research on this special macromolecule. She will show that the protein is even capable of repairing damage to DNA – and that in the future, light-sensing algae may help to develop revolutionary new technologies.

Sabine Oldemeyer is a biophysicist. After earning her doctorate at Bielefeld University, she spent two years as a postdoctoral researcher at Lawrence Berkeley National Laboratory at the University of California, Berkeley. She held a fellowship from the German Research Foundation before joining the Department of Physics at Freie Universität Berlin in 2020. As a postdoc in Experimental Molecular Biophysics, her scientific focus is on light-induced processes in retinal

proteins and cryptochromes.

The event is for free. Yet, due to admission regulations, tickets need to be reserved. For more info and tickets, visit the [event page of Humboldtlabor](#) Berlin.

Humboldtlabor

Organizer