

Synthetic biology employs design and engineering principles to create novel organisms in a much more effective way than earlier biotechnology. One branch of synthetic biology – xenobiology – even develops chemically altered genetic codes and amino acids, which are supposed to effectively isolate the new life from the naturally existing. The synthetic biology research agenda also includes the use of non-living materials to build novel life-forms from scratch.

Which concepts of life, which values and worldviews underlie the design and engineering of novel life-forms? What could be the conceptual, ethical, and social implications of a widespread use of synthetic biology?

To what ends should synthetic biology be deployed?

Consequences and implications of synthetic biology have been researched by philosophers and social scientists alike – often at the request of biologists sensitive to the political and economical need for the public acceptance of their research. Yet, how can research policies help to maintain a plurality of evaluative positions?

Join the discussion of what synthetic biology is all about, of its metaphors of creating life, its visions of saving lives, and of the question how social consequences of new techno-scientific fields can or should be evaluated.

Arnold Sauter, Deputy Head of the Office of Technology Assessment (TAB) at the German Bundestag and Leader of the TAB project "Synthetic Biology."

Rafael Pardo Avellaneda, Professor of Sociology at the Spanish National Council for Scientific Research and Director of the BBVA Foundation.

Sheref S. Mansy, Assistant Professor of Biochemistry at the Centre for Integrative Biology, University of Trento, Italy, is working on artificial chemical systems that mimic cellular life.

Röbbe Wünschiers, Professor of Biotechnology at the University of Applied Sciences Mittweida, Germany, is applying a synthetic biology approach to utilize solar energy for hydrogen gas production with cyanobacteria.

A public event closing the BMBF-funded International Summer School **Analyzing the Societal Dimensions of Synthetic Biology** (www.ta-synbio-summer-school.de). The organizers of the Summer School **Kristin Hagen** and **Margret Engelhard** from the **EA European Academy of Technology and Innovation Assessment GmbH** as well as **Georg Toepfer** from the **Center for Literary and Cultural Research Berlin** will chair the discussion.

In cooperation with **ICI Berlin**.

Synthetic Biology

Concepts,
Values and
Politics



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