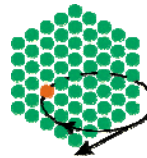


Excellence Cluster SynBio

A project supported by the Landesexzellenzinitiative Hamburg

SynBio - Fundamentals for Synthetic Biological Systems (2009 -)

Hamburg University of Technology (TUHH)
in cooperation with the University of Hamburg (UHH) and
the European Molecular Biology Laboratory (EMBL) at DESY, Hamburg

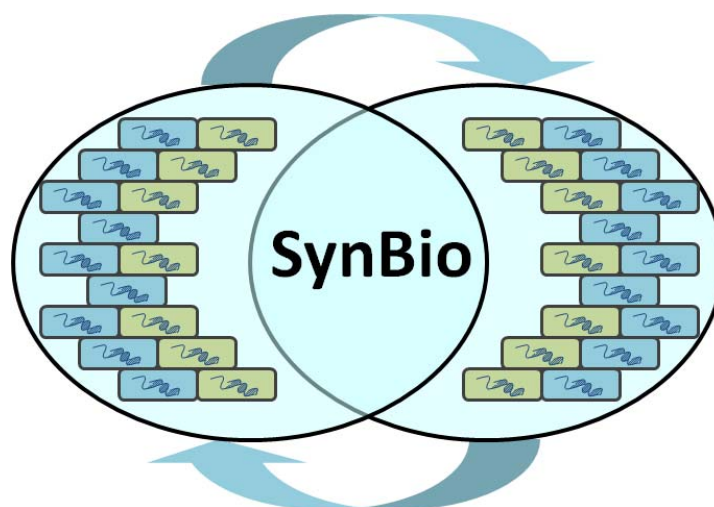


EMBL

Coordinator: Prof. Dr. An-Ping Zeng

Co-coordinator: Prof. Dr. Dr. h. c. Garabed Antranikian

Synthetic biology is a new research area in the centre between life sciences and engineering. It aims to understand cellular processes in a modular approach and to generate interchangeable parts from natural biology and assemble them into useful artificial biological systems. The cluster SynBio addresses fundamentals for developing novel synthetic biological systems which will open new terrain for biotechnology. In the first phase of SynBio, highly effective biocatalytic modules and systems will be studied in microsystems which incorporate extremoenzymes and nano-structured materials. The focus is on revealing interactions of enzymes with structured nanomaterials and principle of multistep bioreaction engineering. The integration of biology, chemistry, and engineering in SynBio is unique and will pave the way for a successful application of synthetic biology.



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