



IP Sustainable Biotechnology and Bioeconomy *Lecture*



Prof. Dr. Peter Lindblad

Uppsala University, Uppsala, Sweden

Thursday, 29 August 2019, 09:00

UFZ Leipzig, Building 4.0, Room 101

Permoserstr. 15, 04318 Leipzig

Engineering cyanobacteria for direct solar chemical and fuel production

Cyanobacteria can be engineered to produce solar chemicals and solar fuels in direct processes. I will present and discuss our strategies to engineer cyanobacteria to produce alcohols, specifically butanol. Moreover, cyanobacteria engineered for increased growth/ CO_2 -fixation and/or modified carbon flow show increased product formation. In addition, I will touch on our recent efforts to generate functional, artificial enzymes linking to the cell metabolism in cyanobacteria.

Peter Lindblad, Professor in Microbial Chemistry since 2009 (earlier Professor in Biology, Physiological Botany), explores the conversion of solar energy into biofuels focussing on H_2 -production/hydrogenases and carbon-containing solar fuels at physiological, biochemical and molecular levels resulting in more than 160 publications. Molecular and genetic techniques are used to address transcriptional regulation and regulatory mechanisms. Recently, his research group developed a strong interest for Synthetic Biology and the possibilities to custom design and engineer microbial cells to carry out novel pathways and functions.

All interested colleagues are kindly invited.