Fakultät für Lebenswissenschaften der Universität Leipzig –
Institut für Biochemie gemeinsam mit dem
Helmholtz-Zentrum für Umweltforschung Leipzig-Halle GmbH

Biochemisches Kolloquium

Dienstag, den 27.11.2018, 17.00 Uhr, spricht

Prof. Dr. Miriam A. Rosenbaum

Leibniz-Institut für Naturstoff-Forschung und Infektionsbiologie

Hans-Knöll-Institut, Jena

zum Thema:

“Molecular engineering of mediated electron transfer for microbial electrocatalysis”

Over the past decade, microbial electrochemical technologies, which were developed from physiological phenomena, have evolved from a rush of initiatives for sustainable bioelectricity generation to a multitude of specialized applications in very different areas. Advances in genetic engineering of non-model microorganisms and the discovery of cathodic microbial synthesis for bioproduction from renewable electricity open up completely new possibilities for bioelectrochemical synthesis and transformations.
One focus of research in our lab is on biocatalytic strategies for specific electrotransformations. The current research highlights within this framework are i) the native and heterologous function and and utilization of phenazine-mediator based electron transfer in genetically modified Pseudomonas species for biotechnological applications, ii) the screening for new potential cathode biocatalysts, and iii) the development of genetic tools to engineer and enable these new biocatalysts for specific microbial electrotransformations. Here, I will provide an overview to these activities with a special focus on the first point.

Ort: Fakultät für Lebenswissenschaften,
Brüderstr. 34, Kleiner Hörsaal, 2. Etage

Zu diesem Kolloquium laden wir Sie und Ihre Mitarbeiter herzlich ein!

Die Dozentinnen und Dozenten des Instituts für Biochemie und des Themenbereichs Umwelt- und Biotechnologie des Helmholtz-Zentrums für Umweltforschung GmbH – UFZ, Leipzig