

Wintersemester / Winter Term 2013/14

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung
Lecture series in Ecology and Environmental Research

Donnerstag 16.01.2014, 17:00 Uhr, H6

Anschließend Postkolloquium mit Bier und Brezen im Foyer H6

Prof. Max Häggblom

Dep. of Biochemistry and Microbiology, Rutgers
University, USA

New Options for Biotransformation: Anaerobic Bacteria that Respire Se and As Oxyanions

Selenium (Se) and Arsenic (As) are intriguing elements: Se is an essential trace element, but toxic in excess, while As is one of the most toxic elements even in trace amounts. Se and As, although generally present in the environment at low levels, are actively metabolized by microorganisms, a process that has a strong impact on their mobility and bioavailability. Given the scarcity of Se and As on the Earth's crust, it is puzzling that pathways dedicated to the respiration of their oxyanions have arisen and have been maintained throughout evolution, in the most diverse environments and taxonomic groups. Microbially mediated transformations may modulate the toxicity of these elements and change their mobility and bioavailability, which in turn may affect their translocation and accumulation in plants and hence, the nutritional quality of various crops.

Do. /Thu. 17 st
Gebäude/Building
GEO
Hörsaal/Lecture hall
H6

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ist eine
interdisziplinäre
Plattform zur
Information und
Diskussion für
Studierende,
Forschende und
Lehrende

Gäste
sind herzlich
willkommen

*The lecture series
serves as an
inter-disciplinary
platform for
students, junior
and senior
scientists.*

*Guests
are cordially
invited!*