

Zelcor Webinar

The graphic features a background image of industrial machinery. On the left, there are two white trays containing powdery and clumpy brown substances. The text 'ZELCOR WEBINAR' is prominently displayed in the upper right, with a stylized insect icon integrated into the letter 'L'. Below this, the title 'Cascading conversion of ligno-cellulosic recalcitrant residues: screening for efficient biocatalysts' is written in yellow. The speakers' names and affiliations are listed in white text, followed by the date and time. A green banner at the bottom contains the registration website.

ZELCOR
WEBINAR

**Cascading conversion of ligno-cellulosic
recalcitrant residues: screening for efficient biocatalysts**

Speakers: Prof. Stephanie Baumberger (AgroParisTech/INRA)
Dr. Thomas Lefebvre (Ynsect)
Prof. Tim Bugg (Warwick)

on 4 July 2019, 2pm CET

For registration: www.zelcor.eu/webinar

Cascading conversion of ligno-cellulosic recalcitrant residues: screening for efficient biocatalysts

Broadcast date: July 4, 2019

Time: 2:00 pm, CET

Speakers and Topics



Prof. Stephanie Baumberger (AgroParisTech/INRA):

Prof. Baumberger will address the general concept of the Zelcor project. Zelcor aims at demonstrating the feasibility of transforming lignin-rich recalcitrant side streams from lignocellulose biorefinery into high added-value biobased products. Its concept is to combine chemical and enzymatic catalysis with insects-based bioconversion, within a “zero waste” cascading approach. Her presentation will explain the concept and illustrate it through some results out of the project.



Dr. Thomas Lefebvre (Ynsect)

Dr. Lefebvre will talk about termite digestomes and bioreactors for conversion of ligno-cellulosic recalcitrant residues. Termites are the most efficient animals for the bioconversion of ligno-cellulosic materials including lignin-rich substrates. Their gut could be considered as tiny bioreactor where the

digestion of recalcitrant plant residues is carried out by complex interactions between the termite and its diverse microbiota. Termite digestomes are now better and better described and figure as promising reservoirs of microorganisms and molecules that could be used for applications in biotechnology. The presentation will (i) give an overview of the termite gut microbiota; (ii) summarize the strategies involved in the degradation of lignocellulose in the digestive system and (iii) provide some feedbacks on the ongoing research activities related to the Zelcor project.



Prof. Tim Bugg (The University of Warwick)

Prof. Bugg will describe the enzyme screening for lignin conversion. His talk will describe the discovery of bacterial lignin-degrading enzymes, such as Dyp-type peroxidases and manganese superoxide dismutase from *Sphingobacterium* sp. He will discuss the screening of these enzymes for bioconversion of different types of lignins, and analysing the products of the enzymatic conversion.

A live Q&A session will follow the presentations, offering you a chance to pose questions to our expert panelists.