

GRK 1708

Molecular principles of bacterial survival strategies

Invited lecture

Identification and Analysis of Proteins involved in Formation/Function of Cyanobacterial Spores and Lipid Droplets

Talk given by

Prof. Dr. Michael Summers

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California State University, Northridge, USA

Wednesday, 29. July 2015

17:00 c.t.

The filamentous cyanobacterium *Nostoc punctiforme* can differentiate normal vegetative cells into spore-like akinetes. Vegetative cells also form inclusion bodies containing neutral lipids (lipid droplets) that increase in number as cultures approach stationary phase. To identify genes and proteins involved in these processes, differential gene expression and proteomic experiments were conducted. The results indicate an ECF sigma factor and several transcriptional regulatory proteins are involved in akinete differentiation, and that lipid droplets are more than storage sites for carbon due to their association with enzymes involved in carotenoid, hopanoid, and quinone biosynthesis.

Location: Auf der Morgenstelle 28, E-Bau, Lecture Hall 3N12

Host: PD Dr. I. Maldener

Guests are cordially invited.