



“Iron uptake homeostasis in *Pseudomonas aeruginosa* and management of oxidative stress”

by

Prof. Dr. Pierre Cornelis

(Vrije Universiteit Brussels, Pleinlaan, 21050 Brussels; Belgium)

Abstract:

Iron is both an essential nutrient for the growth of microorganisms, as well as a dangerous metal due to its capacity to generate reactive oxygen species (ROS) via the Fenton reaction. For these reasons, bacteria must tightly control the uptake and storage of iron in a manner that restricts the build-up of ROS. Therefore, it is not surprising to find that the control of iron homeostasis and responses to oxid-active stress are coordinated. The presentation will cover the mechanisms of iron uptake by bacteria with the emphasis on *Pseudomonas aeruginosa*, the regulation of iron uptake, and the overlap between iron homeostasis, virulence, and the response to oxidative stress via the LysR regulator OxyR.

When: Tuesday, Feb 14th 2012, 12:00h

Where: ZMB lecture Room S03 S00 A40

Host: Dr. Farnusch Kaschani
Universität Duisburg-Essen
ZMB, Chemische Biologie, AG Kaiser
Universitätsstr. 2
45117 Essen