Colloquium

From iron oxides to infections: roles for redox-active "antibiotics" microbial survival and development

Dianne Newman
California Institute of Technology

Host: Calin Guet

While much is known about the adolescent phase of bacterial growth, very little is understood about what sustains bacteria once they reach middle/old age. Interestingly, it is at this later stage that many bacteria begin to produce colorful, redox-active pigments—compounds that hitherto have been classified as “secondary” metabolites, or “antibiotics”. A sizable fraction of bacteria in the environment are metabolically active, yet slowly growing. This is true whether they are attached to electrodes in marine sediments, plant roots, or surfaces in the human body. Our research suggests that the production of redox-active pigments may actually be essential for sustaining life at this late phase of microbial development. This discovery has potentially wide-ranging applications, from providing new strategies to boost the efficiency of microbial fuel cells to new therapeutic targets in the context of infection.

Monday, May 22, 2017 04:00pm - 05:15pm
Raiffeisen Lecture Hall, Central Building

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