COLLÈGE DE FRANCE
1530

INSTITUT DE CHIMIE

Année académique 2014-2015

Jeudi 26 mars 2015 à 10 heures
Salle 2

Lundi 30 mars 2015 à 14 heures
Amphithéâtre Maurice Halbwachs

Pr. Thomas O'HALLORAN
Northwestern University

Jeudi 26 mars de 10h à 11h

Antibody-Targeted Drug Delivery and Arsenic Trioxide-based Agents for the Treatment of Metastatic Cancer

Lundi 30 mars de 14h à 15h

Inorganic Chemistry of Cellular Decision Making Processes: Structure, Dynamics and Mechanisms of Transition Metal Receptors which Regulate Gene Expression

Dr. O'Halloran's research interests center on the regulatory biology and chemistry of transition metal receptors involved in homeostasis and oxidative stress pathways. His laboratory focuses on molecular mechanisms regulating the uptake, trafficking and utilization of metals essential for growth and proliferation (i.e., zinc, copper and iron), nanoscale drug delivery mechanisms and on the mechanisms of clinically important anticancer agents that are based on arsenic, molybdenum and platinum chemistry. This work provided early insights into molecular regulatory mechanisms and has led to the discovery of new classes of soluble metal receptors: metalloregulatory and metallochaperone proteins. Most recently, he has discovered nanoscale processes for targeted delivery of multifunctional therapeutic agents for treatment of hematological cancer and solid tumors: these agents are moving rapidly towards clinical trials. Other recent discoveries involve new roles for zinc fluxes in control of the earliest stages of mammalian development.

11, place Marcelin-Berthelot, 75005 Paris
www.college-de-france.fr

Serge Haroche
Administrateur du Collège de France