

Laboratoire de Biochimie Théorique
Institut de **Biologie Physico-Chimique**
13, rue Pierre et Marie Curie
75005 PARIS

S E M I N A I R E

Motomu Kanai

Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan

« Chemical catalysis targeting biomacromolecules »

Our long-term research goal is to develop synthetic catalysts that can surpass enzymes, and by using the chemical reactions promoted by these synthetic catalysts in the body, introduce a new paradigm of medicine: catalysis medicine. This research direction should in turn contribute to the greener synthesis of functional molecules with high structural complexity, such as drugs, in flasks. Success requires powerful chemical catalysts that can target stable, multifunctional organic molecules, ranging from small molecules to biomacromolecules, under mild conditions with synthetically valuable selectivity.

Along this line, I will present (1) tryptophan-selective bioconjugation [1], (2) amyloid b-selective oxygenation in vivo [2], and (3) synthetic histone acylation [3].

[1] *J. Am. Chem. Soc.* **2016**, *138*, 10798–10801. [2] *Chem* **2018**, *4*, 807–820; *Chem. Commun.* **2019**, *55*, 6165–6168. [3] *J. Am. Chem. Soc.* **2017**, *139*, 7568–7576.

Jeudi 20 février 2020
14h30

SALLE DE CONFERENCES