

SÉMINAIRES SCIENTIFIQUES HEBDOMADAIRES

Claudia Clopath, Ph. D.

Professor of Computational Neuroscience
Department of Bioengineering, Imperial College London

TITRE À VENIR

Vendredi 25 mars 2022

12 h à 13 h

ID de réunion : 880 6617 3443

Mot de passe : 012955

[Lien zoom](#)

The **Computational Neuroscience Laboratory** is part of the [Bioengineering Department](#) at [Imperial College London](#). We use computational and mathematical tools to address the questions of **learning and memory** in the brain. The lab is headed by [Prof. Claudia Clopath](#).

Gaining a better understanding of the brain is an urgent challenge in our society, due to an aging population, which has led to a higher incidence of neurological diseases, such as Alzheimer's and Parkinson's disease. Neuroscience can be studied under different angles, either experimentally, by measuring different aspects of the brain, or theoretically, by constructing models that mimic the brain. These two approaches can work hand-in-hand, where experimental findings influence theoretical models, models allow a broader and more concise understanding, predicting new phenomena, in-turn influencing new experiments. Our lab is on the modeling side, working in tight collaboration with experimental labs. We are especially interested in the field of learning and memory, which is thought to happen when connections between neurons change, a process called synaptic plasticity. This research has two main types of applications: medical applications leading to translational research and engineering applications helping for example to design machines that approach human-like learning capabilities.

Entrée libre

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