

Séminaire



CONFÉRENCIER
INVITÉ

Vendredi 22 Novembre 2019 à 11h

Salle des
séminaires

Institut de biologie structurale - 71 avenue des Martyrs CS 10090 38044 Grenoble Cedex 9 - T.+33 (0)4 57 42 85 00

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par **Thomas Sharp**
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Multi-modal imaging of the complement cascade; from activation to pore formation

The mammalian complement system protects us against microbial infections and autoimmune diseases. In the classical pathway of complement activation, antigen-antibody immune complexes bind complement component C1, through its multimeric C1q recognition module, and activate the associated proteases C1r and C1s. This process initiates the proteolytic complement cascade that leads to immune clearance of a targeted cell. However, how antibodies bind and activate C1 remains unclear. We apply multimodal imaging techniques to investigate the molecular steps in complement activation through C1 upon binding to antibodies. I will discuss how we use cryoEM, cryo-electron tomography, and sub-tomogram averaging to solve the structures of various complement components, revealing insights into activation and termination mechanisms. I will then focus on how we are developing correlative cryo-fluorescence and cryo-super-resolution techniques which we will use to study how immune complexes interact with cells and tissues.

Hôtes : Nicole Thielens (IBS/groupe IRPAS) & Wai Li Ling (IBS/groupe MEM)

L'accès au campus EPN nécessite un avis de rendez-vous
Contactez O. Cavoret (au moins 48h à l'avance) - T. 04 57 42 87 04 - email : ibs.seminaires@ibs.fr