

Thursday, 19th September, 12.00 pm, Seminar Room

Host: Dr. Jesús Ruiz-Cabello

Protein interactions and signaling: From in-cell molecular spectroscopy to super-resolution imaging

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Protein interactions, dimerization and clustering are crucial events that trigger a variety of signaling, molecular translocations and enzymatic activities in the plasma membrane and intracellular compartments.

Nowadays micro-spectroscopy and high resolution imaging tools provide detailed insight into the spatial and temporal evolution of these events also in live cells and tissues, giving a pivotal contribution to the interpretation of cellular responses, pathological mechanisms and drug activities. Applications of super resolution, fluorescence correlation and time resolved spectroscopy imaging will be given as examples to detect receptor activation and protein interaction and clustering in various model systems.

Finally, the Unit of Microscopy and Dynamic Imaging at CNIC will be presented as a National Core Facility for supporting non expert visitors, for joined research projects and for dissemination and training.