

BIOCHEMISTRY SEMINAR SERIES

Faculty Research Seminars – Fall 2021



Specific and timely regulation of gene expression is essential to the processes of cell differentiation, development and is often perturbed during pathological processes. A precise regulation of gene expression requires the integrated coordination of transcription and post-transcriptional processes to ensure that genes are properly expressed in time and space. Our research group focuses on using systems-wide approaches to understand how transcription and post-transcriptional processes are integrated to tightly control the expression of eukaryotic genes. By analyzing gene expression using a combination of original genome-wide approaches, we have discovered novel pathways that ensure the quality control of gene expression and uncovered how RNA degradation eliminate aberrant RNA species that are generated by errors made by the gene expression machinery.



Prof. Guillaume Chanfreau

UCLA Chemistry & Biochemistry

The research interests of Professor Loo's group include the development and application of bioanalytical methods, including mass spectrometry, for the structural characterization of proteins and large protein complexes, and proteomics-based research. A mass spectrum contains information not only on the protein's molecular mass, but it can also highlight the presence of protein post-translational modifications (PTMs). We are developing new methods to uncover these features in a mass spectrum. Mass spectrometry strategies are used to determine the amino acid sites of noncovalent protein-ligand binding for unique compounds that protect against neurodegenerative protein toxicity, and this information can be used to design more potent compounds. Proteomics methods are used to characterize microbial metabolic pathways and to identify unique PTMs that relate to the organism's metabolic pathways.



Prof. Joe Loo

UCLA Chemistry & Biochemistry

Friday, October 29, 2021

Mol Sci 3440

3:30 pm