SJSU | DEPARTMENT OF CHEMISTRY

CHEMISTRY Departmental Seminar

Spring 2022
CHEM 285/191 Schedule
Tuesday at 4:30-5:45PM

February 1st, 2022

Dr. J. Antonio Gomez
University of California Davis

Long Noncoding RNAs: The Long Road from Transcriptional Noise to Biologically Active Macromolecules

One of the most surprising observations since the advent of transcriptome sequencing is the extent to which mammalian genomes are transcribed. Interestingly, most newly discovered transcripts do not give rise to protein-coding sequences; instead, their final product is noncoding RNA (ncRNA) elements. Long ncRNAs, in particular, have seen an explosion in their membership. Yet, their causal roles in human disease have been difficult to ascertain. This seminar will highlight two long ncRNAs, NeST RNA and NHIP RNA. NeST RNA functions in T cell defense against viral and bacterial infections through protein-RNA interactions at the interface of chromatin. NHIP, on the other hand, is involved in DNA methylation and seems to be a biological sensor to oxidative stress. Interestingly, we recently uncovered a small peptide arising from this transcription. This observation has opened the compelling hypothesis that NHIP peptide is biochemically active in cells during oxidative stress. Finally, the juxtaposition of these RNAs will highlight distinct biochemical processes utilized by these newly discovered macromolecules.

Zoom link: https://sjsu.zoom.us/j/84626719622

Please RSVP at https://forms.gle/QuLDzNBJcKNJXjwK6 if you're not enrolled in Chem 285 or Chem 191

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