

Seminar @ Ecole Polytechnique on
Thursday, July 17, 10:45 am

Amphi Becquerel

Invited by J.L. Mergny

Pavel Ivanov

Brigham and Women's Hospital, Harvard Medical School, Boston, USA



RNA G-quadruplexes and cellular stress

Abstract:

RNA G-quadruplexes (rG4s) are non-canonical secondary structures formed by guanine-rich sequences that are found in different regions of RNA molecules. These structures have been implicated in diverse biological processes, including translation, splicing, and RNA stability. Recent studies have suggested that rG4s play a role in the cellular response to stress. I will discuss functions of tetramolecular rG4s derived from transfer RNAs, and roles of rG4 transcriptome in gene regulation during stress adaptation.

Short biography:

I am trained in Moscow, Berlin, Heidelberg and Boston in the area of RNA biology. I am currently an Associate Professor of Medicine at BWH and HMS, and an Associate Member of the Broad Institute of Harvard and M.I.T., and Associate Member of Harvard Institute of RNA medicine. My laboratory's research interests are RNA granules, translational control, non-coding RNAs (both small and long ncRNAs) and RNA G-quadruplexes.