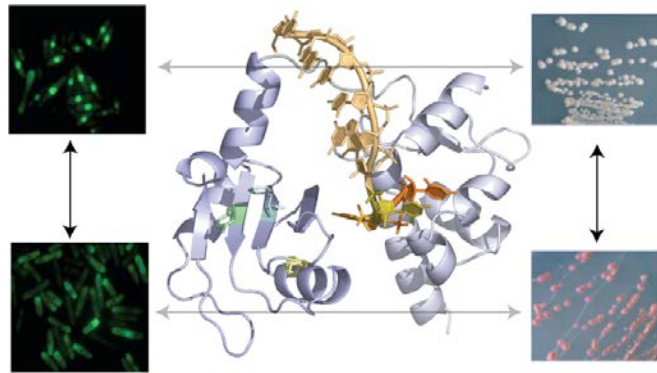




New insights into targets and functions of the human La protein



La proteins are conserved RNA binding factors ubiquitous in eukaryotes and known for sequence specific recognition of the UUU-3'OH found at the end of nascent RNA polymerase III transcripts, such as pre-tRNAs and pre-5S rRNA. These contacts protect these intermediates from 3' exonuclease digestion and nuclear surveillance through a well characterized binding mode. La also engages mRNAs in the cytoplasm and is hypothesized to modulate their translation via mechanisms that are poorly understood but likely involve RNA chaperone function. We have mapped the regions of human La important for RNA chaperone function, and have shown that these are similar to analogous regions found in the human La-related proteins (hLARPs), consistent with a unified function for this superfamily. I will discuss some of these data which have led to novel insights into how RNA chaperones may function, as well as data describing a new binding mode by which La may engage its cytoplasmic RNA substrates.

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Host: Dr. Julie Claycomb

Date: Monday March 16th, 2015

Time: 2PM

Place: Donnelly Centre, 160 College Street, Red Seminar Room