MBB 429

SFU SIMON FRASER UNIVERSITY

RNA-MEDIATED GENE REGULATION

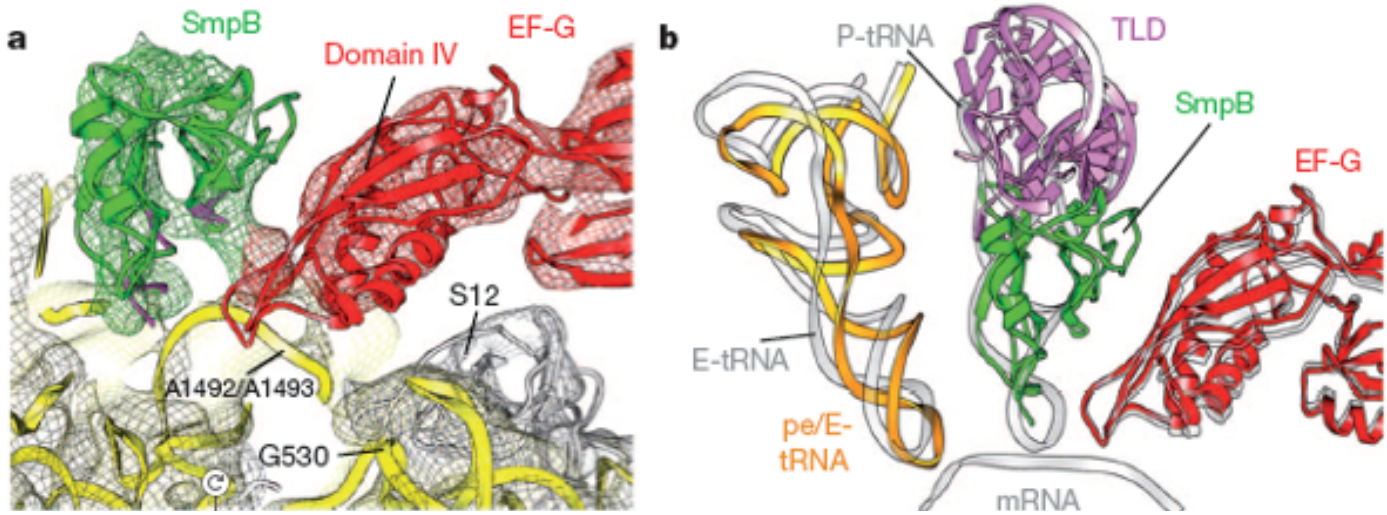
Ribonucleic acid (RNA) plays an important role in gene regulation. This course will explore recent primary literature studying the biochemistry of these processes.

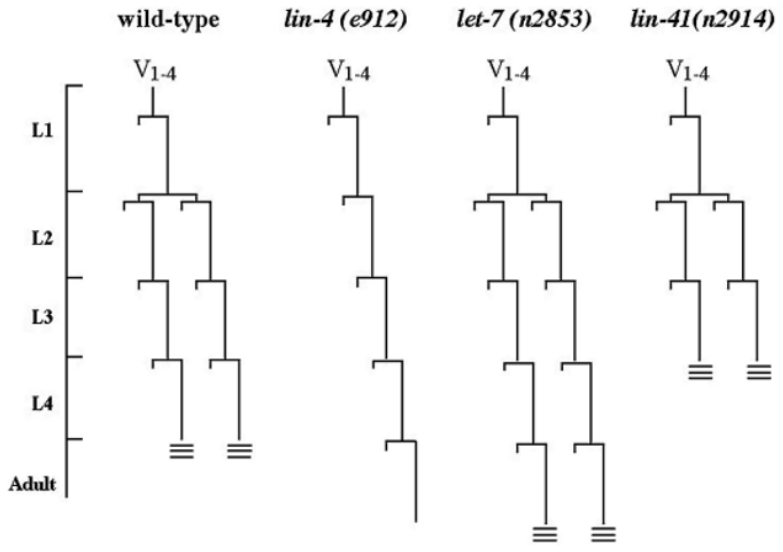
TOPICS

1. RNA interference in plants and animals
2. CRISPR bacterial antiviral defense
3. Transcriptional and translational regulation - riboswitches, tmRNA, IRES elements, 6S RNA, etc.
4. Post-transcriptional processing - editing, capping and splicing. Naturally occurring ribozymes.

INSTRUCTOR

Peter Unrau





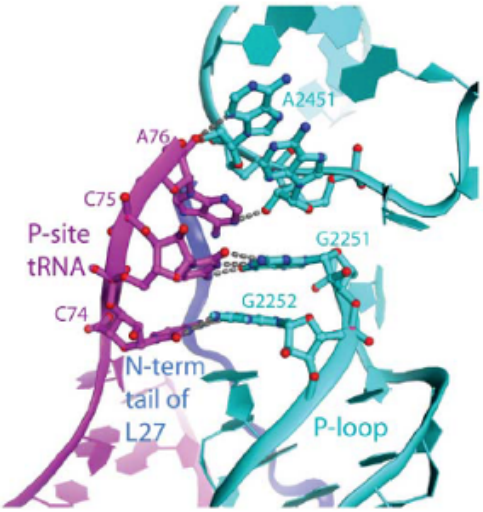
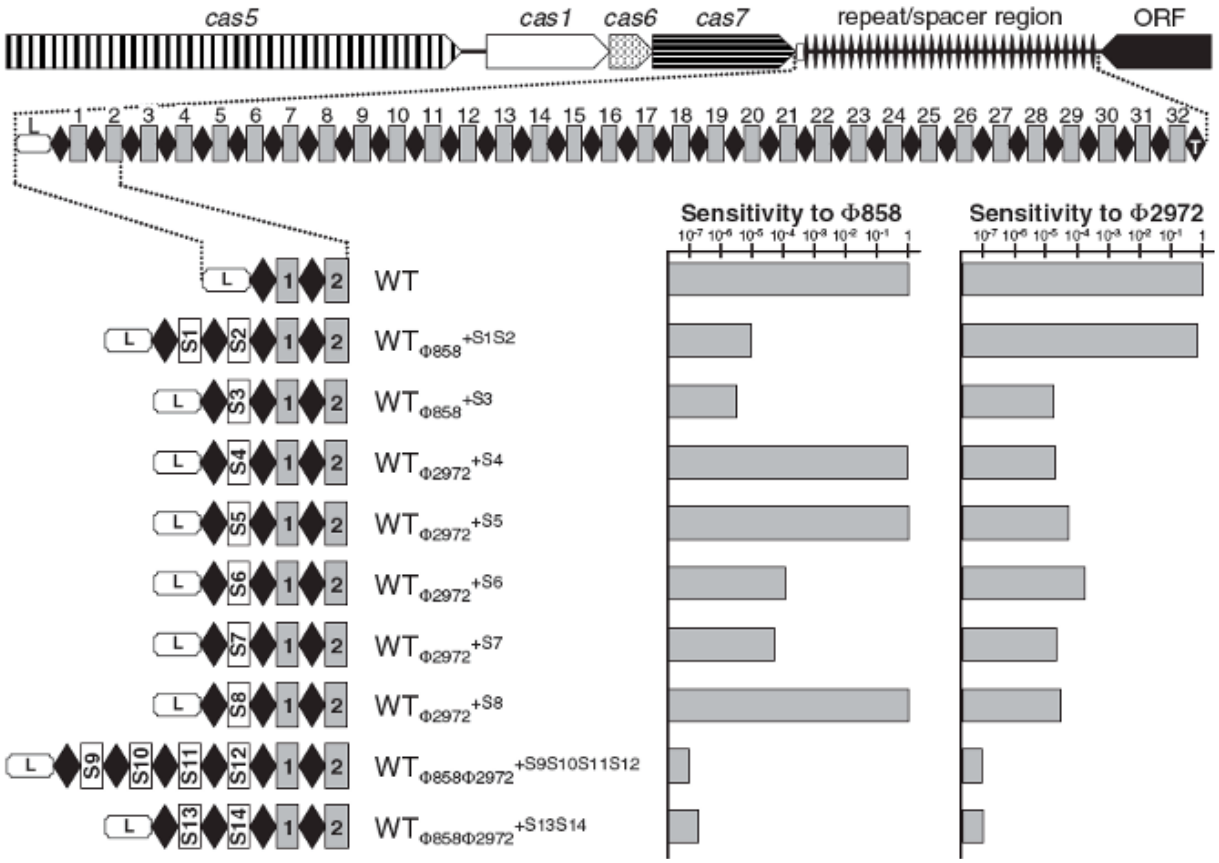


Figure 1. Lineage defects in the seam cells associated with *lin-4*, *let-7* and *lin-41* lf mutants. Seam cell terminal differentiation is represented by 3 horizontal bars.

Vella et al., 2005



FMN riboswitch (general mechanism)