

Deciphering the regulatory functions of miRNAs (Keynote)

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miRNAs are small RNAs that guide Argonaute proteins to target mRNAs through perfect complementarity involving 7-8 nucleotides of the miRNA's 5' end. These *canonical* targets typically undergo degradation and translational inhibition. However, recent studies have suggested that miRNA target degradation can give rise to additional behaviors. These include the threshold-linear response of the targets to their transcriptional induction, reduction of the *noise* in target expression and induction of correlations in the expression of the targets of a given miRNA. Here I will discuss our combined, experimental and computational, approaches towards predicting miRNA targets and characterizing the functional impact of miRNAs.

