Deciphering the regulatory functions of miRNAs
(Keynote)

Mihaela Zavolan
Biozentrum, University of Basel, Switzerland

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.