

## **Structural Basis for RNA-regulated Gene Expression**

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RNA molecules have been discovered at the heart of several central aspects of gene expression, from protein biosynthesis by the ribosome to the targeting of new proteins to the correct intracellular locale to RNA interference (RNAi). Understanding how these RNA-mediated processes work will illuminate central aspects of modern cell biology and also provide important clues to the possibly fundamental role of RNA in the evolution of life. I will describe our efforts to understand the structural basis for RNA function, highlighting recent discoveries about the recognition and cleavage of double-stranded RNA in the early steps of the RNAi pathway.

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