SFB 960-/BZR-Colloquium

13. September 2013, 14:00
H40

Prof. Dr. Dinshaw Patel

Memorial Sloan-Kettering Cancer Center,
New York, USA

"Structural Biology of RNA-mediated Gene Regulation and Methylation mark-mediated Epigenetic Regulation"

Patel's group applies crystallographic and solution NMR techniques to investigate macromolecular-mediated recognition, regulation and catalysis. Research interests are centered on an understanding of molecular processes controlling gene regulation with emphasis on projects involving the structural biology of RNA silencing and epigenetic regulation.

The group contributed substantially to elucidate the mechanisms of Argonaute-mediated site-specific cleavage of messenger RNA. This involved essential structural work on guide- and target-RNA-containing prokaryotic Argonaute proteins as well as the structures of the human Argonaute proteins Ago1 and Ago2.

The Patel group's structure-function studies on epigenetic regulation have provided mechanistic insights into recognition by writers, readers, and erasers of site-specific lysine modification marks on histones and their influence on the establishment and maintenance of chromatin-mediated epigenetic on/off states.

Host: Prof. Dr. Gunter Meister, Biochemistry I
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