Keynote Lecture

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Structural Genomics of Chromatin Regulators for Biological Discovery & Epigenetic Therapy

C. Arrowsmith¹

¹Structural Genomics Consortium, Princess Margaret Cancer Centre, University of Toronto, Dept of Medical Biophysics, Toronto, Canada

We are taking a protein family approach to understand how human protein domains, enzymes and complexes recognize specific histone tail sequences and their posttranslational modifications. These are key mechanisms of nuclear signaling that regulate epigenetic cellular states and gene expression programs. Systematic structural and biochemical analyses are revealing key features of selectivity and regulation among these factors, enabling structure-based development of potent, selective, cell-active small molecule inhibitors of individual epigenetic regulatory proteins.

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