

# Geneticist reveals molecular view of key epigenetic regulator

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In a paper published this week in the journal *Proceedings of the National Academy of Sciences*, Dr. Michael Kobor reported the structure and function of a key player in regulating chromatin in yeast and humans.

Kobor is a UBC assistant professor of medical genetics and a scientist at The Centre for [Molecular Medicine](#) and Therapeutics at the Child & Family Research Institute.

Chromatin, a dynamic DNA-protein complex, is involved in numerous cellular processes and has profound effects on human health and disease. This study is a major advancement in elucidating the role and structure of an epigenetic regulator commonly involved in human leukemia and other human diseases.

Chromatin biology is central to epigenetics which is a framework for environmental regulation of genome function. The chromatin regulator Yaf9 contains a module called the YEATS domain, which is found in many other proteins implicated in chromatin regulation and cancer. The molecular structure and function of YEATS domain proteins has been an unresolved mystery in the field of epigenetics.

Using advanced X-ray crystallography, the team gained the first detailed picture at atomic resolution of the YEATS domain. Furthermore, the authors showed that its function is conserved from [yeast](#) to human, and revealed a requirement of the YEATS domain for two different mechanisms by which [chromatin](#) can be modified.

Source: University of British Columbia ([news](#) : [web](#))

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