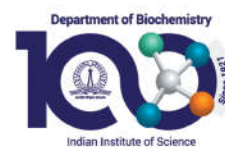


CENTENNIAL CELEBRATIONS
Department of Biochemistry
1921-2021



Chromosome structure is like mist on eyeglasses, obscures vision

by

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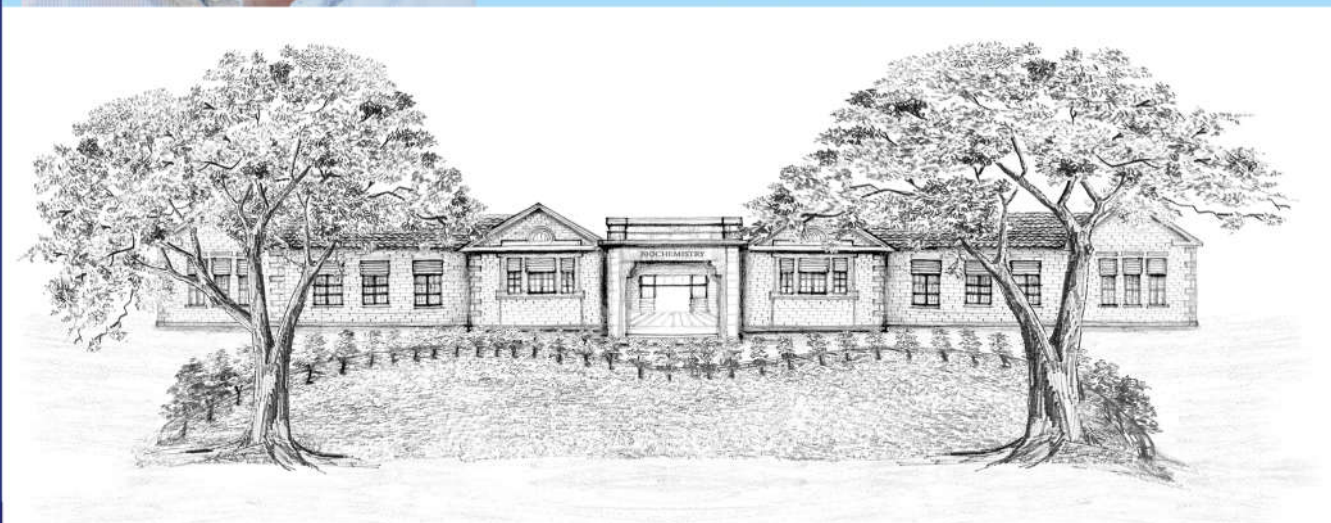
Division Head Genetics, Genomics and Development, University of California, Berkeley

President, iBiology



Abstract

Higher order chromatin structure is essential for proper chromosome segregation, DNA repair and gene expression. In all living organisms, higher order chromatin structure is mediated by the SMC family of protein complexes. An assumed premise of biology, most notably embodied by the double helix, is that structure drives and therefore informs on function. In this lecture I will present three vignettes from my laboratory, revealing that structure can be misleading because it can be a distraction, incomplete or unimportant. Our results contradict previous conclusions about the lack of conservation of chromosome structure between organisms, the functional unit of SMC complexes, and the conservation and function of chromosome loops. We provide new insights into differential compaction of chromosomal regions, the existence and importance of SMC complex oligomerization in vivo, and the conserved formation and function of chromosome loops.



Jan 19, 2021, 10:30 a.m. IST {10:30, Bangalore, INDIA TIME}

Jan 18, 2021, 9:00 p.m. PST {21:00, Berkeley, U.S.A. TIME}

Join Zoom Meeting

<https://zoom.us/j/92135201632?pwd=aVMwalFIYnB0T2FIOHNSdlcvT0pJdz09>

YouTube link <https://youtu.be/JEkLY3nkRCE>

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