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Ubiquitin and mitosis: regulation by a molecular machine

Coordination of step-by-step chromosome segregation and cell division is fundamental to cell biology and numerous aspects of human health. A major regulator of these processes is the massive, multisubunit E3 ubiquitin ligase, Anaphase-promoting Complex/Cyclosome (APC/C), which can be regarded as a molecular machine. My lecture will provide insights into the remarkable structural properties of the APC/C, how APC/C is regulated, and how APC/C orchestrates stepwise progression through mitosis.