

Laws for cellular growth, and models to frame them

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Proliferating cells organize their resources in order to harness nutrients from the environment and grow. Work in bacteria has highlighted how this behavior leads to striking emergent “growth laws” linking growth to cellular composition. However, beyond bacteria, we still have limited insight on the generality of such laws and even in bacteria some of the key mechanistic aspects underlying them are unclear. I will present our efforts towards a flexible and predictive modeling framework integrating different aspects of biosynthesis and its regulation, with applications in bacteria, budding yeast and mammalian cells.

Role

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