

Integration of signaling systems and metabolic control in the proliferation of single cells

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I will discuss current research on the connections between the Ras/MAPK, PI3K/Akt, mTOR, and AMPK signaling systems and how these control protein translation, glycolysis, and oxidative phosphorylation. I will focus first on the biological side of this topic and then discuss existing models, along with open questions that have yet to be investigated with a quantitative approach.