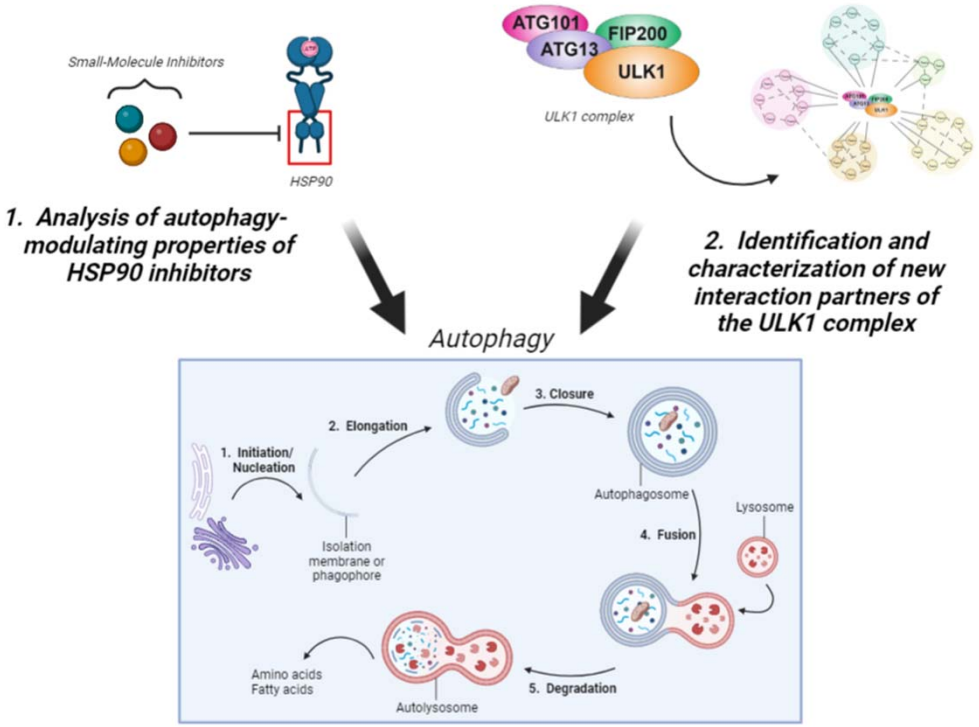
Céline David

Characterization of autophagy-modulating HSP90 inhibitors and novel interaction partners of the autophagy-inducing ULK1 complex



(Macro-)Autophagy is a highly conserved intracellular degradation pathway committed to the elimination of damaged or long-lived proteins and organelles. It contributes to the maintenance of cellular homeostasis and ensures functional metabolism by providing energy resources. As so, autophagy can support high metabolic demands of cancer cells under nutrient-deprived conditions and can contribute to their therapy-resistance by preventing genotoxic or metabolic stress imposed by anticancer drugs. Therefore, targeting autophagy could help overcome resistance mechanisms of tumor cells. In this project, we will focus on characterizing the autophagy-modulating properties of HSP90 inhibitors targeting the C-terminal dimerization interface of the molecular chaperone. Moreover, we aim at identifying and characterizing new interaction partners of the autophagy-inducing ULK1 complex in order to potentially establish them as targets in future therapeutic approaches.

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