AGEING & LIFESTYLE IMPACT ON SKELETAL MUSCLE FUNCTION

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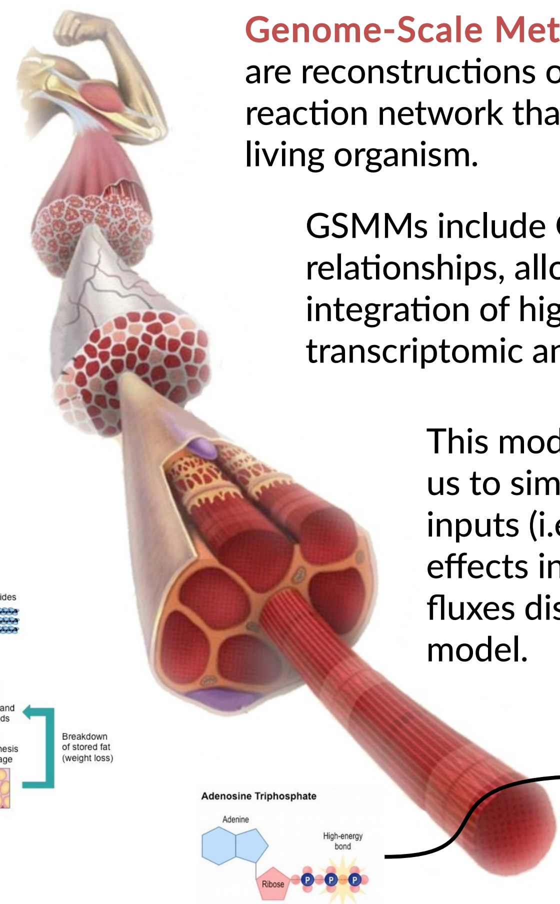
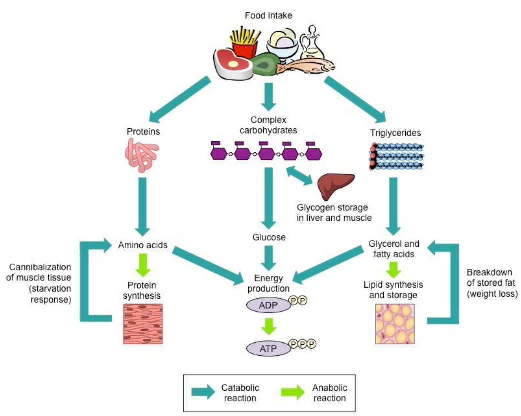
PANINI
Physical Activity and Nutrition INfluences In ageing

Our muscles decay with age, losing mass, strength and the ability to support us in daily life activities.

Muscle loss can be slowed with a regular exercise regime and an appropriate diet.



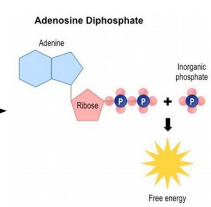


Genome-Scale Metabolic Models

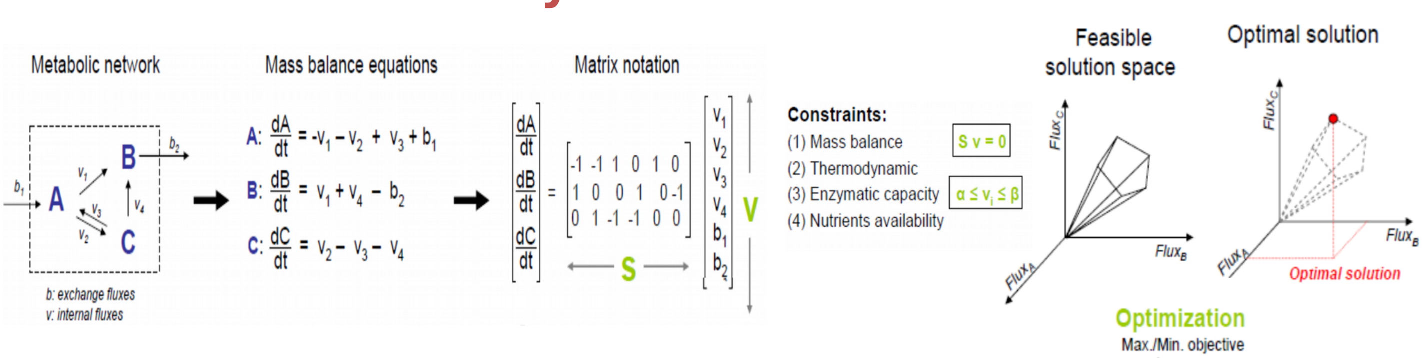
are reconstructions of the biochemical reaction network that take place inside a living organism.

GSMMs include Gene-Protein-Reaction relationships, allowing the systematic integration of high-throughput data such as transcriptomic and proteomic data.

This modelling framework allows us to simulate arbitrary nutritional inputs (i.e. diets) and see their effects in terms of metabolic fluxes distributions in the muscle model.



Flux Balance Analysis



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