The tight regulation of metabolic control is important for organismal function and wellbeing. The pathways by which certain ingested nutrients coordinate proper function, and particularly how certain nutrient signalling pathways talk to each other when nutrient balance is altered, is poorly understood. We adopt an integrated systems approach to further the understanding of adaptive/maladaptive metabolism and the molecular mechanisms involved therein, with the eventual aim to discover new therapies for diseases with a metabolic basis such as obesity, diabetes, and perhaps cancer. Our particular interest lies in the complex interaction between nutrients, hormones, and signalling pathways which connect these to ultimately coordinate systemic metabolic control.

Research Projects

1. **Nutrient-hormonal-signalling nodes controlling metabolic homeostasis**

2. **Stress-signalling pathways in adaptive metabolic control**

3. **Inter-organ metabolic cross-talk in health and disease**