

Looking for a motivated Master student to work in a very friendly team on the research project:

LIFELONG EFFECTS OF ENERGY SAVING STRATEGIES DURING DEVELOPMENT IN THE GARDEN DORMOUSE

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Project outlines:

In the context of global change and increasing frequency of unpredictable events, there is growing interest in how well physiological flexibility can buffer organisms from environmental hazard. One key metabolic constraint imposed by environmental fluctuations is food shortage. **Heterothermy** (daily torpor and hibernation) allows individuals to save energy in response to reduced food availability. Another widespread strategy to save energy is **social thermoregulation** or '**huddling**'. The combined use of huddling and torpor allows individuals to maximize energy savings in relation to their environmental constraints (food shortage). **Higher torpor use during early life can lead to greater ability of the individuals to display heterothermy during adulthood in response to environmental challenges.** A fundamental mystery in the regulation of phenotypic flexibility resides in the question whether the **phenotype of descendants can be optimized by parents** to improve offspring performance in response to future food shortage.

In this study, we therefore aim to:

- Determine lifelong effects of extensive torpor use during development on the flexibility of energy saving strategies.
- Quantify the energetic benefits and implications of a flexible and contrasted use of heterothermy during adulthood.

Project schedule: August 2021 to June 2022

The applicant should have a good background in animal biology/physiology and the willingness to learn new techniques. Previous experience with animal handling and statistics using R software are required. If you are interested, please contact us as soon as possible by sending a CV via E-mail.