

Title: Molecular evolution of growth and parental hormones in vertebrates

Thesis type/Oppgavetype: Master

Credits/Stp: 60

Language/Språk: English

Supervisors/Veiledere: Marie Saitou

Description:

This project aims to study the evolutionary history of major pituitary hormones, including growth hormone and prolactin, across vertebrate species. These hormones regulate essential biological functions, such as growth, lactation, and parental behavior. Using bioinformatics tools and comparative genomics, the project will investigate how these hormone genes evolved, their relationship to species-specific behaviors, and the evolutionary pressures that shaped their function. The study will link genomic data with ecological and behavioral traits to provide a comprehensive view of hormone-driven adaptation in various vertebrate taxa and an insight into better suited for sustainable farming practices. Reading list:

<https://discovery.ucl.ac.uk/id/eprint/10094923/>

<https://www.annualreviews.org/content/journals/10.1146/annurev-animal-050922-071351>

<https://journals.physiology.org/doi/full/10.1152/physrev.00009.2019>

<https://academic.oup.com/icb/article/56/2/207/2240669>

Additional info: We welcome motivated master's students who want to contribute to cutting-edge research in evolutionary genomics, bioinformatics, and functional genomics.

Our lab has a strong record of supporting students, with past master's student successfully submitting their work to an international journal.

You can start working early if you like. We value collaboration, initiative, and time management.

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