GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN IN PUBLICA COMMODA SEIT 1737

Johann Friedrich Blumenbach Institute
Evolutionary Developmental Genetics
Prof. Gregor Bucher

Caspari Haus (GZMB), Justus-von-Liebig-Weg 11, 37077 Göttingen | fon: ++49-551-39-25426, fax: -25416 | gbucher1@uni-goettingen.de

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I am looking for **two PhD students TVL-E13 (65%) for 4 years**
Application until January 14th 2026 at https://uni-goettingen.de/de/556704.html
Online-Information-Session: December 17th 2pm at *uni-goettingen.zoom.us/my/meeting.with.gregor*

As part of the recently funded DFG Research Training Group

Gönomix "Emerging model systems: Cross-species comparison of developmental gene function and gene regulatory networks"

I am looking for two PhD students, who are interested in studying the evolution of gene regulatory networks and chromatin structure in development. Further, we want to establish novel transgenic tools that open more profound analyses.

Project 1: The activation of the anterior GRN by Wnt-signaling

We have shown that Wnt signaling is essential for insect axis formation but the mechanism is poorly understood. You will determine the dynamics of the Wnt gradient by establishing a transgenic Wnt-reporter and by using single-molecule-imaging. Using ATACseq and transcriptomics you identify Wnt enhancers and reconstruct the GRNs of head versus tail. Emerging hypotheses are tested by RNAi and hybridization-chain-reaction.More information: https://www.uni-goettingen.de/de/document/download/764330746ecd1eeb17f1d0f7ecfaeaba.pdf/Bucher%20poster%201-1%20v2%20(DJ1).pdf

Project 2: Micro-evolutionary divergence of the anterior GRN

The principles of GRN evolution remain enigmatic. To improve our understanding, you will study diversified beetle GRNs. You will study the effect of quantitatively reduced gene function in different strains and species. Bioinformatics analyses of transcriptomics will reveal the diverged connectivity. You will develop a transgenic tool for the spatial restriction of RNAi based on our success with temporal restriction. More information: https://www.uni-goettingen.de/de/document/download/9072bdd643f48128acfd7b74c9b9a34b.pdf/Bucher%20poster%201-2%20v2%20(DJ1).pdf

Environment: You will work in a closely collaborating group of 10 PhD students, who work on different emerging model organisms including some bioinformatics experts. We offer an intense and very interesting training program including regular meetings of all students e.g. for "cutting edge" workshops on gene technology, bioinformatics training and other topics and we will have a number of retreats. Please find more information on GönomiX and the training program here: https://www.uni-goettingen.de/de/624201.html).

Hope to see your application!
Gregor Bucher