



Stellenausschreibung 10/2020

### PhD position

#### **Craniofacial development and evolutionary aspects of intra- and interspecies facial variability.**

We are seeking a highly motivated candidate with an interest in craniofacial development and evolutionary aspects of facial variability, to join our group at the Max Planck Institute for Evolutionary Biology.

Our research is focused on the early stages of head formation and we combine inter-disciplinary approaches and different vertebrate models. Specifically, we utilize single-cell transcriptomics and genomics, high-resolution and whole-mount imaging, multiplex in situ hybridization, micro-computed tomography and 3D reconstructions, genetic tracing, tissue-specific gene modifications and a spectrum of *in vivo* & *in vitro* methods to reveal the genetic, cellular and molecular basis of vertebrate head development. Our goal is to characterize cell types participating in the early head morphogenesis and dissect their interactions on a cellular and molecular level. We are particularly interested in the evolutionarily conserved link between the development of the nervous system and the skull. By investigating the signals originating from the emerging nervous tissues, we aim to elucidate the mechanisms of cartilage and bone induction, growth, and shaping across different vertebrate species. Our main research models are mouse, chicken, zebrafish, and *Xenopus*.

The applicant is expected to have a deep knowledge of the research in fields of (including but not limited to) developmental and molecular biology. Prior experience working with the above-mentioned animal models is beneficial but not essential. Knowledge and experience with bioinformatics analysis of single-cell sequencing data are beneficial. A Master of Science degree or a Diploma as well as a strong interest in EvoDevo biology are prerequisites for joining our group. We offer international, stimulating and collaborative environment, access to state-of-the-art equipment and further professional development. Applicants with a strong motivation for a career in science, outstanding bench and organizational skills, and excellent written and verbal English communication skills are welcome to apply.

The position is open from 01.01.2021. Candidates should send their CV, motivation letter, along with the names of at least two references to [kaucka@evolbio.mpg.de](mailto:kaucka@evolbio.mpg.de)

Deadline for applications is 1<sup>st</sup> of October 2020.

For more details on the institute, research group and the university, please, see:

<https://www.evolbio.mpg.de/2169/en>

<https://www.evolbio.mpg.de/CraniofacialBiology>

<https://www.studium.uni-kiel.de/de>

The Max Planck Society has set itself the goal of employing more severely disabled people. Applications from severely disabled people are expressly welcome. In addition, the Max Planck Society strives for gender equality and diversity. We welcome applications from any background.





The Max Planck Institute for Evolutionary Biology in Plön (Schleswig-Holstein) consists of three departments: Evolutionary Genetics, Evolutionary Theory, and Microbial Population Biology. It is focused on basic research to unravel general evolutionary processes, such as ecological adaptations, benefits of sexual reproduction, or evolution of cooperation. The scope of the work includes ecological, organismic, molecular, and theoretical approaches