Postdoctoral Research Scientist in Vertebrate Evolutionary Morphology and Bioinformatics

Location: Shenzhen, China

Closing Date: 31 August 2025

Overview:
The Koyabu Lab at Sun Yat-sen University (SYSU) is an international, multidisciplinary team investigating the evolution of the mammalian cranium through an integrative approach that combines paleontology, comparative anatomy, embryology, molecular developmental biology, and multi-omics. Our methodologies include x-ray microtomography, synchrotron imaging, geometric morphometrics, 3D histology, in situ hybridization, single-cell RNA sequencing, spatial transcriptomics, and light sheet fluorescence microscopy. We are recruiting five postdoctoral research scientists in the areas of evolutionary morphology (Position A), geometric morphometrics (Position B), evolutionary genomics (Position C), evolutionary developmental biology (Position D), morpho-informatics (Position E) to start in January 2026.

Sun Yat-sen University (SYSU) is a rapidly rising research-intensive university ranked #13 in the most recent Nature Index 2024 (https://www.nature.com/nature-index/research-leaders/2024/institution/all/all/global). The School of Ecology at SYSU is China's top-ranked institution in ecology and evolution, renowned for its research and academic excellence. Located in Shenzhen, China's innovation capital at the heart of the "Greater Bay Area" encompassing Hong Kong and Macau, the School represents SYSU's commitment to addressing pressing environmental challenges through cutting-edge research and interdisciplinary collaboration.

Qualifications for all positions:
Ph.D. in vertebrate morphology, developmental biology, paleontology, evolutionary genomics, bioinformatics or related fields, and demonstrated

record of productivity and publications. Obtained their Ph.D. within the past 36 months at the time of application.

Minimal responsibilities for all positions:
To collaborate within a multidisciplinary team taking responsibility for research progress and research reporting, presentations at lab meetings and scientific meetings.
To write grants, co-supervise students and assistants.

Position A (Evolutionary Morphology):
Main Responsibilities: To conduct comparative anatomical and developmental investigations of the bat cranium, with a particular focus on the inner ear and larynx. The research will utilize advanced 3D histological techniques to characterize morphological patterns associated with distinct echolocation behaviors.
Qualifications: background in anatomy or paleontology with collection-based research

Position B (Geometric Morphometrics):
Main Responsibilities: To reconstruct 3D models from histological sections and micro-/nano-CT data, and to conduct comparative analyses of cranial growth trajectories and modularity patterns in mammals using semi-landmark-based geometric morphometrics.
Qualifications: advanced proficiency in geometric morphometrics

Position C (Evolutionary Genomics):
Main Responsibilities: To perform evolutionary bioinformatics analyses, including comparative genome alignments, time-series bulk RNA-seq, time-series snRNA-seq, and time-series spatial transcriptomics of bats and closely related mammals.
Qualifications: proficiency in bioinformatics

Position D (Evolutionary Developmental Biology):
Main Responsibilities: To study cranial development in key mammalian orders using experimental developmental biology approaches, histological techniques, light sheet fluorescence microscopy, and time-series spatial transcriptomics.
Qualifications: proficiency in wet lab and histology techniques

Position E (Morpho-informatics):
Main Responsibilities: To study the relationship between prenatal time-series transcriptome data vs prenatal time-series 3D morphological shape change.
Qualifications: experience in transcriptome data and proficiency in python

Salary and appointment term:
This is a multi-year postdoctoral position, with an initial appointment of 24 months and the possibility of renewal for up to an additional two years. Qualified candidates may also apply for senior research positions at SYSU during their term. Annual salary will be 340,000 RMB (approx. 40,000 Euros) per annum. Those who hold a Ph.D. from universities ranking within the top-200 of major rankings (QS, Times, USNews, ARWU) will be eligible to apply for an additional annual allowance of 120,000 RMB (approx. 15,000 Euros) for three years from the Guangdong Provincial Government.

Benefits:
Postdoctoral apartments with good living conditions will be provided by SYSU. The university will facilitate admission for children of postdoctoral researchers to the affiliated schools of SYSU.

Start date and deadline:
The position will be available from January 2026. The exact starting date is negotiable. Please send your complete application materials as a single PDF file (that includes motivation letter, curriculum vitae, degree certificates, and contact details of two professional references) to koyabuATmail.sysu.edu.cn before 17 August, with the subject line “postdoc_appl_YOUR-LAST-NAME”. The selection process will start immediately.

Daisuke Koyabu
Full Professor
School of Ecology, Sun Yat-sen University
Lab website: https://sites.google.com/site/daisukekoyabuen

Closing Date: 17 August 2025

Duration: Fixed term

Minimum qualifications: Ph.D.