



UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386

## BIOINFORMATICS POSTDOC IN EVOLUTIONARY GENOMICS

Center for Molecular Biology (ZMBH), Heidelberg University, Germany

A postdoctoral position (3 years with possible extensions) is available immediately in the evolutionary genomics group of Henrik Kaessmann.

We are seeking highly qualified and enthusiastic applicants with strong skills in computational biology/bioinformatics, ideally also with experience in data mining and comparative or evolutionary genome analyses.

We have been interested in a range of topics related to the origins and evolution of vertebrate organs. In the framework of our research, we generate and analyze comprehensive genomics (e.g., RNA-seq, ATAC-seq) datasets based on samples from our large organ collections. More recently, we have begun to bring the work of our lab to the level of single cells using state-of-the-art single-cell genomics technologies and bioinformatics procedures.

The postdoctoral fellow will be funded by a recently awarded ERC Advanced Grant. In the framework of this grant, we seek to unravel the cellular and molecular origins and evolution of the vertebrate brain. The fellow will perform integrated evolutionary/bioinformatics analyses based on data produced in our lab and available genomic data. The precise project will be developed together with the candidate.

In our lab, we attach great importance to a highly collaborative and positive team spirit! And we are particularly fond of the diverse cultural backgrounds of our lab members, which contribute to a very enriching atmosphere.

The language of our institute is English and its members form a highly international group. The ZMBH is located in Heidelberg, a picturesque international city next to the large Odenwald forest and Neckar river. The city offers a very stimulating, diverse and collaborative research environment, with the European Molecular Biology Laboratory (EMBL), German Cancer Research Center (DKFZ), Heidelberg Institute of Theoretical Studies (HITS), and the Max Planck Institute for Medical Research located in close proximity to the University.

For more information on the group and our institute more generally, please refer to our website at the ZMBH (<http://www.zmbh.uni-heidelberg.de/Kaessmann/>).

Please submit a CV, statement of research interest, and names of three references to: Henrik Kaessmann ([h.kaessmann@zmbh.uni-heidelberg.de](mailto:h.kaessmann@zmbh.uni-heidelberg.de)).

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Selected publications:

Wang, Z.Y., Leushkin, E., Liechti, A., Ovchinnikova, S., Mößinger, K., Brüning, T., Rummel, C., Grützner, F., Cardoso-Moreira, M., Janich, P., Gatfield, D., Diagouraga, B., de Massy, B., Gill, M.E., Peters, A.H.F.M., Anders, S., and Kaessmann, H. (2020) Transcriptome and translome co-evolution in mammals. **Nature** 588: 642-647.

Cardoso-Moreira M., Halbert, J., Valloton, D., Velten, B., Chen, C., Shao, Y., Liechti, A., Ascensão, K., Rummel, C., Ovchinnikova, S., Mazin, P.V., Xenarios, I., Harshman, K., Mort, M., Cooper, D.N., Sandi, C., Soares, M.J., Ferreira, P.G., Afonso, S., Carneiro, M., Turner, J.M., VandeBerg, J.L., Fallahshahroudi, A., Jensen, P., Behr, R., Lisgo, S., Lindsay, S., Khaitovich, P., Huber, W., Baker, J., Anders, S., Zhang, Y.E., and Kaessmann H. (2019) Gene expression across mammalian organ development. **Nature** 571: 505-509.

Sarropoulos, I., Marin, R., Cardoso-Moreira, M., and Kaessmann, H. (2019) Developmental dynamics of lncRNAs across mammalian organs and species. **Nature** 571: 510-514.

Cortez, D., Marin, R., Toledo-Flores, D., Froidevaux, L., Liechti, A., Waters, P.D., Grutzner, F., and Kaessmann, H. (2014) Origins and functional evolution of Y chromosomes across mammals. **Nature** 508: 488-493.

Necsulea, A., Soumillon, M., Warnefors, M., Liechti, A., Daish, T., Zeller, U., Baker, J.C., Grutzner, F., and Kaessmann, H. (2014) The evolution of lncRNA repertoires and expression patterns in tetrapods. **Nature** 505: 635-640.

Brawand, D., Soumillon, M., Necsulea, A., Julien, P., Csardi, G., Harrigan, P., Weier, M., Liechti, A., Aximu-Petri, A., Kircher, M., Albert, F.W., Zeller, U., Khaitovich, P., Grutzner, F., Bergmann, S., Nielsen, R., Paabo, S., and Kaessmann, H. (2011) The evolution of gene expression levels in mammalian organs. **Nature** 478: 343-348.