

## **Unit Name**

Human Evolutionary Genomics Unit  
Adjunct Professor Svante E Pääbo

## **Research Personnel**

*Xiangchun Ju, Staff Scientist (until February 2026)*

*Shin-Yu Lee, Postdoctoral Scholar*

*Limin Chen, Research Unit Technician*

*Chika Azama, Research Unit Technician*

*Hugo Zeberg, Visiting Researcher*

*Mateja Hajdinjak, Visiting Researcher*

*Chie Narai, RUA*

## **Collaborations**

Prof. Ryosuke Kimura, University of the Ryukyus, University of the Ryukyus, Japan,  
-Population history of the Ryukyus.

Prof. Ken-ichi Shinoda, National Museum of Nature and Science, Tokyo, Japan,  
-Population history of Japan.

Prof. Bernd Kuhn, OIST, Japan,  
-Effects of human-specific genetic changes.

Prof. Izumi Fukunaga, OIST, Japan,  
-Effects of human-specific changes in the gene ADSL

Prof. Wieland Huttner, Max Planck Institute for Cell Biology and Genetics, Dresden, Germany,  
-Effects of human-specific changes in genes involved in chromosomal segregation.

Prof. Hugo Zeberg, Karolinska Institutet, Stockholm, Sweden,  
-Effects of archaic genetic variants in present-day populations.

Prof. Fuji Nagami, Prof. Nobuo Fuse, Assistant Prof. Makiko Taira, Prof. Kengo Kinoshita, Assistant Prof. Shu Tadaka, Tohoku Medical Megabank Organization, Tohoku University, Japan,  
-Archaic genetic contributions to the Japanese population.

## **Scholarly Contributions and Creative Productions (by Faculty)**

### **Journal Article**

1. Macak, D., Lee, S.-Y., Nyman, T., Ampah-Korsah, H., Strandback, E., Pääbo, S., & Zeberg, H. (2025). Muscle AMP deaminase activity was lower in Neandertals than in modern humans. *Nature Communications*, 16: 6371.
2. Ju, X.-C., Lee, S.-Y., Ågren, R., Machado, L. C., Xing, J., Azama, C., Roy, M. C., Endo, T., Huttner, W., Siepel, A., Fukunaga, I., Zeberg, H., & Pääbo, S. (2025). The activity and expression of adenylosuccinate

lyase were reduced during modern human evolution, affecting brain and behavior. *Proceedings of the National Academy of Sciences of the United States of America*, 122(32): e2508540122.

3. Fu, Q., Cao, P., Dai, Q., Bennett, E. A., Feng, X., Yang, M. A., Ping, W., Pääbo, S., & Ji, Q. (2025). Denisovan mitochondrial DNA from dental calculus of the >146,000-year-old Harbin cranium. *Cell*, 188(15): e9, pp. 3919-3926.
4. Jacobs, Z., Zavala, E. I., Li, B., O’Gorman, K., Shunkov, M. V., Kozlikin, M. B., Derevianko, A. P., Uliyanov, V. A., Goldberg, P., Agadjanian, A. K., Vasiliev, S. K., Brink, F., Peyrégne, S., Slon, V., Pääbo, S., Kelso, J., Meyer, M., & Roberts, R. G. (2025). Pleistocene chronology and history of hominins and fauna at Denisova Cave. *Nature Communications*, 16: 4738.
5. Helmbrecht, N.; Lackner, M.; Maricic, T.; Pääbo, S.  
The Modern Human Aryl Hydrocarbon Receptor Is More Active When Ancestralized by Genome Editing. *Proceedings of the National Academy of Sciences of the United States of America* 2024, 121.
6. Helmbrecht, N., Lackner, M., Maricic, T., & Pääbo, S. (2024). The modern human aryl hydrocarbon receptor is more active when ancestralized by genome editing. *Proceedings of the National Academy of Sciences*, 121(22): e2402159121.
7. Fast, L., Omar, M., Kanis, P., Schaffer, T., Chowdhury, D., Rakava, E., Pääbo, S., & Riesenber, S. (2025). Search-and-remove genome editing allows selection of cells by DNA sequence. *Nature Communications*, 16: 10985.

### **Scholarly Contributions (by Unit Members)**

Name of Unit Member	Type	Title	Outlet
Xiangchun Ju	Journal Article	Thymosin beta 4 down-regulation contributes to the pathology of Alzheimer’s disease in cerebral organoids with APP mutations.	Stem Cell Reports
Shin Yu Lee	Poster Presentation at Conference	Detailed Characterization of the Male ReproductiveAnatomy in the Pharaoh Cuttlefish, <i>Sepia pharaonis</i>	CIAC
Shin Yu Lee	Poster Presentation at Conference	A new species of <i>Callistoctopus</i> (Cephalopoda: Octopodidae) from the Penghu archipelago, Taiwan.	CIAC

### **Honors, Awards & Fellowships**

- Term 1 2025 - Svante Pääbo Receives the 2025 Bradford Washburn Award,  
スヴァンテ・ペーボ氏、2025年ブラッドフォード・ワッシュバーン賞を受賞, 2025, Museum of Science, Boston, USA [Fiscal Year: 2025-09-01]
- Term 1 2025 Awarded an honorary doctorate by the Tartu University, Estonia.,  
タルトゥ大学から名誉博士号を授与, 2025, The University of Tartu, Estonia. [Fiscal Year: 2025-11-01]
- Term 2 2025 Svante Pääbo Elected Member of the Accademia delle Scienze dell’Istituto di Bologna in 2025,  
スヴァンテ・ペーボ氏、2025年にボローニャ科学アカデミー会員に選出, 2025, Accademia delle Scienze dell’Istituto do Bologna, Italy. [Fiscal Year: 2025-04-01]
- Term 2 2025 Svante Pääbo Receives the 5th Hypatia Award,  
スヴァンテ・ペーボ氏、第5回ヒュパティア賞を受賞, 2025, Barcelona City Council [Fiscal Year: 2025-04-01]

**Workshops and Seminars [Organized and Hosted by Faculty/Units]**

Speaker Name(s)	Title	Location	Co-Organizers	Date
Hugo Zeberg, Mateja Hajdinjak, Stephan Riesenber, Volker Soltys, Leo Speidel, Masatoshi Matsunami, Daniel Aldea, Javier Koh, Izumi Fukunaga	Frontiers in recent Human Evolution	OIST	J-PEAKS	2026-03-23