

Liangxue LAI Ph.D.



Dr. Lai is principal investigator and deputy director of Southern China Institute of Stem Cell Biology and Regenerative Medicine, Guangzhou Institutes of Biomedicine and Health, China. His research is focusing on transgenic animals, animal cloning human and animal stem cells. He pioneered the first knock-out pigs in the world by using nuclear transfer approach.



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EDUCATION

- **1995** : Ph.D. in science from the Department of Biological Engineering of Northeast Agricultural University, China
- **1987** : M.S. in animal anatomy from the Veterinary University of the Chinese people's Liberation Army, China
- **1984** : B.S. in agronomy at Sichuan Animal Husbandry and Veterinary College, China

EXPERTISE

- Transgenic animals (pigs)
- Animal cloning human and animal stem cells

OTHERS

- 200 peer review papers in the international journals including "Science", "PNAS", "Nature Biotechnology" and "Human Molecular Genetics"

ACADEMIC APPOINTMENTS

- **2010 - present** : Principal Investigator of Stem Cell Biology and Regenerative Medicine, Guangzhou Institutes of Biomedicine and Health, China
- **2007 - 2010** : Chief scientist of Jilin key Laboratory of Animal Embryo Engineering, Jilin University
- **2004 - 2006** : Research Assistant Professor, National Swine Resource and Research Center, University of Missouri-Columbia, USA
- **2002 - 2004** : Research Assistant Professor, Animal Science Research Center, University of Missouri-Columbia, USA
- **1998 - 2002** : Postdoctoral Fellow, Animal Science Research Center, University of Missouri-Columbia, USA

AWARDS AND HONORS

- Winner of the highest award for medical technology in the American New Age of Science and Technology magazine in 2002
- The two research results ranked among the top 30 of the world's top 100 science and technology news by Discovery magazine in 2002 and 2006 respectively
- Winner of China overseas Outstanding Youth Fund

SELECTED PUBLICATIONS

1. Yan, S., Zheng, X., Lin, Y., Li, C., Liu, Z., Li, J., Tu, Z., Zhao, Y., Huang, C., Chen, Y., Li, J., Song, X., Han, B., Wang, W., Liang, W., Lai, L., Li, X.J., Li, S. 2023. Cas9-mediated replacement of expanded CAG repeats in a pig model of Huntington's disease. **Nature Biomedical Engineering**. 7(5): 629-646.
2. Wang, J., Xie, W., Li, N., Li, W., Zhang, Z., Fan, N., Ouyang, Z., Zhao, Y., Lai, C., Li, H., Chen, M., Quan, L., Li, Y., Jiang, Y., Jia, W., Fu, L., Mazid, M.A., Zhu, Y., Maxwell, P.H., Pan, G., Esteban, M.A., Dai, Z., Lai, L. 2023. Generation of a humanized mesonephros in pigs from induced pluripotent stem cells via embryo complementation. **Cell Stem Cell**. 30(9): 1235-1245.
3. Zhu, Y., Zhang, Z., Fan, N., Huang, K., Li, H., Gu, J., Zhang, Q., Ouyang, Z., Zhang, T., Tang, J., Zhang, Y., Suo, Y., Lai, C., Wang, J., Wang, J., Shan, Y., Wang, M., Chen, Q., Zhou, T., Lai, L., Pan, G. 2022. Generating functional cells through enhanced interspecies chimerism with human pluripotent stem cell. **Stem Cell Reports**. 17(5): 1059-1069.