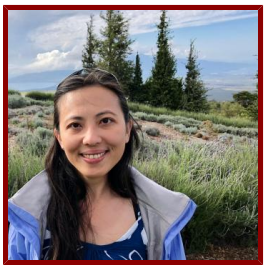
Stanford



Wan-Jin Lu

Basic Life Research Scientist, Stem Cell Bio Regenerative Med Institute

Bio

BIO

Dr. Wan-Jin Lu is a Research Scientist in Dr. Phil Beachy's lab. Wan-Jin grew up in Taiwan, obtained her B.S. in Zoology at National Taiwan University and completed her PhD in Genetics and Development at UT Southwestern in the lab of Dr. John Abrams. Her Ph.D. research involved the identification of the evolutionary conserved function of the tumor suppressor gene p53 that ensures the quality control of germ cells. She then moved to the Bay Area, where she was a Damon Runyon Postdoctoral Fellow in the Institute of Stem Cell Biology and Regenerative Medicine in the Beachy lab. Her work currently focuses on understanding the function of Hedgehog signaling in taste receptor cell homeostasis and delineating the mechanisms of taste receptor regeneration after chemotherapy-induced loss.

Since 2017, she has been collaborating with Tabula Muris And Tabula Sapiens Consortium to investigate taste receptor stem cell renewal and regeneration in the Beachy lab. Her work has received funding support from California Institute of Regenerative Medicine (CIRM), Thomas and Stacey Siebel Foundation, and NIH (R21 and R01).

ACADEMIC APPOINTMENTS

- Basic Life Research Scientist, Stem Cell Bio Regenerative Med Institute

HONORS AND AWARDS

- Siebel Scholar, Thomas and Stacey Siebel Foundation (2015-2016)
- Postdoctoral Scholar Award, California Institute of Regenerative Medicine (CIRM) (2014-2015)
- Postdoctoral Scholar Award, Damon Runyon Cancer Research Foundation (2011-2014)

PROFESSIONAL EDUCATION

- Ph.D., UT Southwestern , Genetics and Development (2010)
- B.S., National Taiwan University , Zoology (2001)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Signaling network in adult stem cell niches.

Publications

PUBLICATIONS

- **Increased [18F]FDG uptake of radiation-induced giant cells: a single-cell study in lung cancer models** *npj Imaging*
  Das, N., Nguyen, H. T., Lu, W., Natarajan, A., Khan, S., Pratx, G.
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- **Distinct p53 isoforms code for opposing transcriptional outcomes.** *Developmental cell*
  Wylie, A., Jones, A. E., Das, S., Lu, W., Abrams, J. M.
  2022

- **The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans.** *Science (New York, N.Y.)*
  Jones, R. C., Karkanias, J., Krasnow, M. A., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaup, B., Brown, P., Harper, W., Hemenez, M., Ponnusamy, R., Salehi, et al
  2022; 376 (6594): eabl4896

- **Probing restoration of taste receptor cell with engineered nanobodies**
  Lu, W., Zhang, Y., Li, A., Beachy, P. A.
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- **Toward the restoration of damaged taste organs with a genetically encoded Hedgehog pathway agonist**
  Lu, W., Sivakamasundari, V., Zhang, Y., Li, A., Beachy, P. A.
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- **Distinct skeletal stem cell types orchestrate long bone skeletogenesis.** *eLife*
  Ambrosi, T. H., Sinha, R., Steininger, H. M., Hoover, M. Y., Murphy, M. P., Koepke, L. S., Wang, Y., Lu, W., Morri, M., Neff, N. F., Weissman, I. L., Longaker, M. T., Chan, et al
  2021; 10

- **Hedgehog pathway activation through nanobody-mediated conformational blockade of the Patched sterol conduit.** *Proceedings of the National Academy of Sciences of the United States of America*
  Zhang, Y., Lu, W., Bulkley, D. P., Liang, J., Ralko, A., Han, S., Roberts, K. J., Li, A., Cho, W., Cheng, Y., Manglik, A., Beachy, P. A.
  2020

- **A single-cell transcriptomic atlas characterizes ageing tissues in the mouse.** *Nature*
  2020

- **Ageing hallmarks exhibit organ-specific temporal signatures.** *Nature*
  Schaum, N. n., Lehallier, B. n., Hahn, O. n., Pálovics, R. n., Hosseinzadeh, S. n., Lee, S. E., Sit, R. n., Lee, D. P., Losada, P. M., Zardeneta, M. E., Fehlmann, T. n., Webber, J. T., McGeever, et al
  2020

- **Strategies for single-molecule tracking of Sonic Hedgehog delivery to the regenerative niche in adult taste buds**
  Lu, W., Baghel, A., Beachy, P. A.
  OXFORD UNIV PRESS.2019: E61–E62

- **Identification of the Human Skeletal Stem Cell.** *Cell*
  Chan, C. K., Gulati, G. S., Sinha, R., Tompkins, J. V., Lopez, M., Carter, A. C., Ransom, R. C., Reinisch, A., Wearda, T., Murphy, M., Brewer, R. E., Koepke, L. S., Marecic, et al
  2018; 175 (1): 43

- **Neuronal delivery of Hedgehog directs spatial patterning of taste organ regeneration.** *Proceedings of the National Academy of Sciences of the United States of America*
  Lu, W. J., Mann, R. K., Nguyen, A. n., Bi, T. n., Silverstein, M. n., Tang, J. Y., Chen, X. n., Beachy, P. A.
  2018; 115 (2): E200–E209

- **Single-cell transcriptomics of 20 mouse organs creates a Tabula Muris.** *Nature*
  2018; 562 (7727): 367–72

- **Stromal Gli2 activity coordinates a niche signaling program for mammary epithelial stem cells** *SCIENCE*
  Zhao, C., Cai, S., Shin, K., Lim, A., Kalisky, T., Lu, W., Clarke, M. F., Beachy, P. A.
  2017; 356 (6335): 284-?

- **Control of inflammation by stromal Hedgehog pathway activation restrains colitis.** *Proceedings of the National Academy of Sciences of the United States of America*
  Lee, J. J., Rothenberg, M. E., Seeley, E. S., Zimdahl, B., Kawano, S., Lu, W., Shin, K., Sakata-Kato, T., Chen, J. K., Diehn, M., Clarke, M. F., Beachy, P. A.
  2016

- **p53 genes function to restrain mobile elements.** *Genes & development*
  Wylie, A., Jones, A. E., D'Brot, A., Lu, W. J., Kurtz, P., Moran, J. V., Rakheja, D., Chen, K. S., Hammer, R. E., Comerford, S. A., Amatruda, J. F., Abrams, J. M.
  2016; 30 (1): 64-77

- **Identification and specification of the mouse skeletal stem cell.** *Cell*
  Chan, C. K., Seo, E. Y., Chen, J. Y., Lo, D., McArdle, A., Sinha, R., Tevlin, R., Seita, J., Vincent-Tompkins, J., Wearda, T., Lu, W., Senarath-Yapa, K., Chung, et al
  2015; 160 (1-2): 285-298

- **p53 activity is selectively licensed in the Drosophila stem cell compartment** *ELIFE*
  Wylie, A., Lu, W., D'Brot, A., Buszczak, M., Abrams, J. M.
  2014; 3

- **Meiotic Recombination Provokes Functional Activation of the p53 Regulatory Network** *SCIENCE*
  Lu, W., Chapo, J., Roig, I., Abrams, J. M.
  2010; 328 (5983): 1278-1281

- **OPINION p53 ancestry: gazing through an evolutionary lens** *NATURE REVIEWS CANCER*
  Lu, W., Amatruda, J. F., Abrams, J. M.
  2009; 9 (10): 758-762

- **The Bax/Bak ortholog in Drosophila, Debcl, exerts limited control over programmed cell death** *DEVELOPMENT*
  Galindo, K. A., Lu, W., Park, J. H., Abrams, J. M.
  2009; 136 (2): 275-283

- **A collective form of cell death requires homeodomain interacting protein kinase** *JOURNAL OF CELL BIOLOGY*
  Link, N., Chen, P., Lu, W., Pogue, K., Chuong, A., Mata, M., Checketts, J., Abrams, J. M.
  2007; 178 (4): 567-574

- **Lessons from p53 in non-mammalian models** *CELL DEATH AND DIFFERENTIATION*
  Lu, W., Abrams, J. M.
  2006; 13 (6): 909-912

- **The apical caspase dronc governs programmed and unprogrammed cell death in Drosophila** *DEVELOPMENTAL CELL*
  Chew, S. K., Akdemir, F., Chen, P., Lu, W. J., Mills, K., Daish, T., Kumar, S., Rodriguez, A., Abrams, J. M.
  2004; 7 (6): 897-907