



Fabian Suchy

Postdoctoral Scholar, Stem Cell Biology and Regenerative Medicine

Bio

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , STMRM-PHD (2021)
- BS, University of Wisconsin, Madison , Molecular Biology (2012)

STANFORD ADVISORS

- Hiro Nakauchi, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Xenophagocytosis blockade enhances interspecies chimerism.** *Cell*
Wang, S., Niizuma, K., Liu, D. D., Suchy, F. P., Chang, A. H., Tabatabaee, S., Sato, H., Yanagida, A., Masaki, H., Hidajat, N., Homma, S., Miyauchi, M., Bhadury, et al
2026
- **DNMT3A R882H Is Not Required for Disease Maintenance in Primary Human AML, but Is Associated With Increased Leukemia Stem Cell Frequency.** *Cancer discovery*
Köhnke, T., Karigane, D., Hilgart, E., Fan, A. C., Kayamori, K., Miyauchi, M., Collins, C. T., Suchy, F. P., Rangavajhula, A., Feng, Y., Nakauchi, Y., Martinez-Montes, E., Fowler, et al
2025
- **FLT3 ligand facilitates long-term ex vivo expansion of human hematopoietic stem cells by maintaining lymphoid reconstitution potential**
Miyauchi, M., Banuelos, A., Mack, P., Suchy, F., Tan, T., Charlesworth, C., Homma, S., Zhang, J., Kayamori, K., Yilmaz, L., Bhadury, J., Karigane, D., Nakauchi, et al
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- **Aberrant cell cycle regulation and osteoblastic differentiation in diamond-blackfan anemia (DBA) mesenchymal stem cells**
Kim, H., Viduya, J., Youm, J., Mark, K., Liu, L., Suchy, F., Nakauchi, H., Shyr, D., Goyal, A., Glader, B., Wu, J. Y., Sakamoto, K.
ELSEVIER.2025: 747-748
- **Intra-leukemic interferon signaling suppresses expansion and mediates chemoresistance in human AML.** *Blood cancer discovery*
Karigane, D., Fan, A. C., Nishimura, T., Kayamori, K., Nakauchi, Y., Köhnke, T., Rangavajhula, A., Ediriwickrema, A., Benard, B. A., Thomas, R., Zhao, F., Stafford, M., Suchy, et al
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Wang, S., Niizuma, K., Liu, D. D., Suchy, F. P., Sato, H., Yanagida, A., Masaki, H., Miyauchi, M., Tabatabaee, S., Hidajat, N., Bhadury, J., Charlesworth, C. T., Zhang, et al
2025

- **Highly efficient in vivo hematopoietic stem cell transduction using an optimized self-complementary adeno-associated virus** *MOLECULAR THERAPY METHODS & CLINICAL DEVELOPMENT*
Charlesworth, C. T., Homma, S., Amaya, A. K., Dib, C., Vaidyanathan, S., Tan, T., Miyauchi, M., Nakauchi, Y., Suchy, F. P., Wang, S., Igarashi, K. J., Cromer, M., Dudek, et al
2025; 33 (1)
- **Highly efficient in vivo hematopoietic stem cell transduction using an optimized self-complementary adeno-associated virus.** *Molecular therapy. Methods & clinical development*
Charlesworth, C. T., Homma, S., Amaya, A. K., Dib, C., Vaidyanathan, S., Tan, T. K., Miyauchi, M., Nakauchi, Y., Suchy, F. P., Wang, S., Igarashi, K. J., Cromer, M. K., Dudek, et al
2025; 33 (1): 101438
- **DNMT3AR882H Is Not Required for Disease Maintenance in Primary Human AML, but Is Associated With Increased Leukemia Stem Cell Frequency.** *bioRxiv : the preprint server for biology*
Köhnke, T., Karigane, D., Hilgart, E., Fan, A. C., Kayamori, K., Miyauchi, M., Collins, C. T., Suchy, F. P., Rangavajhula, A., Feng, Y., Nakauchi, Y., Martinez-Montes, E., Fowler, et al
2024
- **Secreted Particle Information Transfer (SPIT) - A Cellular Platform for In Vivo Genetic Engineering.** *Research square*
Charlesworth, C. T., Homma, S., Suchy, F., Wang, S., Bhadury, J., Amaya, A. K., Camarena, J., Zhang, J., Tan, T. K., Igarashi, K., Nakauchi, H.
2024
- **HYPDXIC/SCF-SUPPLEMENTED CULTURE IN POLYMER-BASED MEDIUM ENABLES STABLE EX VIVO HUMAN HEMATOPOIETIC STEM CELL EXPANSION**
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- **Skin graft with dermis and appendages generated in vivo by cell competition.** *Nature communications*
Nagano, H., Mizuno, N., Sato, H., Mizutani, E., Yanagida, A., Kano, M., Kasai, M., Yamamoto, H., Watanabe, M., Suchy, F., Masaki, H., Nakauchi, H.
2024; 15 (1): 3366
- **Unwanted Concatemeric Knock-Ins Occur Frequently with Cas9/AAV-Mediated Gene-Editing: Detection and Prevention**
Suchy, F. P., Karigane, D., Nakauchi, Y., Higuchi, M., Zhang, J., Pekrun, K., Hsu, I., Fan, A. C., Nishimura, T., Charlesworth, C. T., Bhadury, J., Nishimura, T., Wilkinson, et al
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- **Genome engineering with Cas9 and AAV repair templates generates frequent concatemeric insertions of viral vectors.** *Nature biotechnology*
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- **Secreted Particle Information Transfer (SPIT) - A Cellular Platform for In Vivo Genetic Engineering.** *bioRxiv : the preprint server for biology*
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2024
- **Gene Correction of DNMT3A:R882H in Primary Human AML Demonstrates That This Mutation Is Not Required for Disease Maintenance, but Is Associated with Increased Leukemia Stem Cell Frequency**
Koehnke, T., Karigane, D., Hilgart, E., Kayamori, K., Fan, A. C., Collins, C. T., Suchy, F. P., Rangavajhula, A. S., Feng, Y., Nakauchi, Y., Martinez-Montes, E., Koldobskiy, M., Feinberg, et al
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- **Removal of sperm tail using trypsin and pre-activation of oocyte facilitates intracytoplasmic sperm injection in mice and rats** *JOURNAL OF REPRODUCTION AND DEVELOPMENT*
Torikai, K., Shimizu, K., Nagatomo, H., Kasai, M., Kato-ito, M., Kamada, Y., Shibasaki, I., Jeon, H., Kikuchi, R., Wakayama, S., Suchy, F., Nakauchi, H., Wakayama, et al
2023; 69 (1): 48-52
- **Removal of sperm tail using trypsin and pre-activation of oocyte facilitates intracytoplasmic sperm injection in mice and rats.** *The Journal of reproduction and development*
Torikai, K., Shimizu, K., Nagatomo, H., Kasai, M., Kato-ito, M., Kamada, Y., Shibasaki, I., Jeon, H., Kikuchi, R., Wakayama, S., Suchy, F., Nakauchi, H., Wakayama, et al

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- **Chimpanzee and pig-tailed macaque iPSCs: Improved culture and generation of primate cross-species embryos.** *Cell reports*
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- **Generation of Functional Organs Using a Cell-Competitive Niche in Intra- and Inter-species Rodent Chimeras.** *Cell stem cell*
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2020
- **Sufficiency for inducible Caspase-9 safety switch in human pluripotent stem cells and disease cells.** *Gene therapy*
Nishimura, T., Xu, H., Iwasaki, M., Karigane, D., Saavedra, B., Takahashi, Y., Suchy, F. P., Monobe, S., Martin, R. M., Ohtaka, M., Nakanishi, M., Burrows, S. R., Cleary, et al
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- **Mosaicism diminishes the value of pre-implantation embryo biopsies for detecting CRISPR/Cas9 induced mutations in sheep** *TRANSGENIC RESEARCH*
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- **Generation of Vascular Endothelial Cells and Hematopoietic Cells by Blastocyst Complementation** *STEM CELL REPORTS*
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- **Mosaicism diminishes the value of pre-implantation embryo biopsies for detecting CRISPR/Cas9 induced mutations in sheep.** *Transgenic research*
Vilarino, M., Suchy, F. P., Rashid, S. T., Lindsay, H., Reyes, J., McNabb, B. R., van der Meulen, T., Huising, M. O., Nakauchi, H., Ross, P. J.
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- **CRISPR/Cas9 microinjection in oocytes disables pancreas development in sheep** *SCIENTIFIC REPORTS*
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