

# Kyle M. Loh

Department of Developmental Biology and Institute for Stem Cell Biology & Regenerative Medicine  
Stanford University School of Medicine  
265 Campus Drive, Lokey Stem Cell Research Building Rm G3105, Stanford, CA 94305 USA  
Email: [kyleloh@stanford.edu](mailto:kyleloh@stanford.edu) • Web: <https://loh.stanford.edu>

## Research Overview

We are charting a developmental roadmap encompassing how dozens of different human cell-types arise from pluripotent stem cells. By applying this knowledge, we endeavor to create pure populations of specific human cell-types from pluripotent stem cells. This will create a foundation for developmental biology and regenerative medicine, and to model various human diseases. Regarding the latter, we are exploring which human cell-types are infected by deadly biosafety level 4 viruses and the cellular effects of such viruses.

## Training & Appointments

10/2025-Current	Associate Professor and DiGenova Faculty Scholar, Stanford University
2/2018-9/2025	Assistant Professor and DiGenova Faculty Scholar, Stanford University
11/2021-Current	Guest Researcher, Center for Biological Threats & Special Pathogens, Robert Koch Institute
10/2016-1/2018	Siebel Investigator and Instructor, Stanford University
9/2011-9/2016	Ph.D., Developmental Biology, Stanford University (Advisor: Prof. Irving Weissman)
6/2010-8/2011	Intern, Genome Institute of Singapore, A*STAR (Advisor: Prof. Bing Lim)
6/2007-5/2010	B.A., Cell Biology & Neuroscience <i>summa cum laude</i> , Rutgers University (Advisors: Dale Woodbury [Rutgers Medical School], Kevin Eggan [Harvard], and Doug Melton [Harvard])
1/2006-5/2007	Undergraduate, County College of Morris

## Fellowships & Awards

2026	ISSCR Early Career Impact Award (1 selected worldwide)
2025	Tucker Collins Lecture, Boston Children's Hospital and Harvard Medical School
2023	Best Short Presentation, Gordon Research Conference on Vascular Cell Biology
2019	Packard Fellowship for Science and Engineering (22 selected from across the U.S.)
2019	Pew Biomedical Scholar (22 selected from across the U.S.)
2019	Human Frontier Science Program Young Investigator (9 teams selected worldwide)
2018	The Anthony DiGenova Endowed Faculty Scholar at Stanford University
2018	Forbes 30 Under 30
2018	Donald and Delia Baxter Foundation Faculty Scholar
2018	Fannie and John Hertz Foundation Thesis Prize (1 selected from across the U.S.)
2017	NIH Director's Early Independence Award (DP5) (11 selected from across the U.S.)
2016	Siebel Investigatorship
2016	A*STAR Investigatorship (declined) (2 selected worldwide)
2015	Harold Weintraub Graduate Award, Fred Hutch Cancer Research Center (13 selected worldwide)
2011	Hertz Foundation Graduate Fellowship (15 selected from across the U.S.)
2011	U.S. National Science Foundation Graduate Research Fellowship
2010	Davidson Laureate Fellowship (3 selected from across the U.S.)
2010	A*STAR Singapore International Pre-Graduate Award (for 1-year research internship abroad)
2007-2010	Rutgers University School of Arts & Sciences Excellence Award
2008	Harvard Stem Cell Institute Internship Program
2007	Research & Development Council of New Jersey Scholarship (for community college)

## Publications (In Revision or Submitted)

1. Ang LT\*, Zheng SL\*, Liu KJ\*, Masaltseva A\*, Winters J\*\*, von Creyzt I\*\*, Jha SK\*\*, Yin Q\*\*, Qian C, Xiong X, Dailamy A, Xi E, Alcocer JC, Sorensen DW, She R, Smolyar K, Szumska D, Nornes S, Martin RM, Lesch BJ, Restrepo NK, Sun W, Weissman JS, Lickert H, Porteus MP, Skylar-Scott MA, Mosimann C, Sumanas S, De Val S, Prescott JB†, Red-Horse K†, **Loh KM**† (2025). Discovery of a pre-vein progenitor that requires VEGF/ERK inhibition to complete vein differentiation. *bioRxiv*, <https://www.biorxiv.org/content/10.1101/2025.10.11.681838v2>
2. Amir Ugokwe Z, Pyke AL, Trimm E, Chakraborty M, Fan X, Ang LT†, **Loh KM**†, Red-Horse K† (2025). VEGF/ERK activation and PI3K inhibition together drive a vein-to-artery transition in an *in vitro* model of human angiogenesis. *bioRxiv*, <https://www.biorxiv.org/content/10.64898/2025.12.17.694993v1>.
3. Prescott JB\*, Liu KJ\*, Lander A, Pek NMQ, Jha SK, Bokelmann M, Begur M, Koh PW, Yang H, Lim B, Red-Horse K, Weissman IL, **Loh KM**, Ang LT (2025). Metabolically purified human stem cell-derived hepatocytes reveal distinct effects of Ebola and Lassa viruses. *bioRxiv*, <https://www.biorxiv.org/content/10.1101/2025.02.17.638665v1>
4. Chai T, **Loh KM**†, Weissman IL† (2024). TMX1, a disulfide oxidoreductase, is necessary for T cell function through regulation of CD3zeta. *bioRxiv*, <https://www.biorxiv.org/content/10.1101/2024.09.22.614388v1>

## Publications (Research Articles)

Total Research Articles: 37

\*Co-first authors; \*\*Co-second authors; †Co-senior/corresponding authors

1. Dundes CE\*, Jokhai RT\*, Ahsan H\*\*, Kang RS\*\*, Salomon-Shulman REA\*\*, Rajan A, Kim YS, Stanton LJ, Xu C, Do S, McDonald BD, López JMA, Urrutia HA, Greenfeld H, Wong A, Qu Y, Petkovic AS, Miao Y, Garcia KC, Monje M, Wagner DE, Bronner ME, Lowe CJ, **Loh KM** (2026). Two parallel lineage-committed progenitors contribute to the developing brain. *Nature Neuroscience*, accepted (<https://www.biorxiv.org/content/10.1101/2025.07.02.662771v2>).
2. Köhnke T, Karigane D, Hilgart E, Fan AC, Kayamori K, Miyauchi M, Collins CT, Suchy FP, Rangavajhula A, Feng Y, Nakauchi Y, Martinez-Montes E, Fowler JL, **Loh KM**, Nakauchi H, Koldobskiy MA, Feinberg AP, Majeti R (2025). DNMT3A<sup>R882H</sup> Is Not Required for Disease Maintenance in Primary Human AML, but Is Associated With Increased Leukemia Stem Cell Frequency. *Cancer Discovery* 10.1158/2159-8290.CD-24-1604.  
*Contribution: Hematopoietic differentiation of human pluripotent stem cells*
3. Azizoglu DB, Perez K, Zheng SL, Rahman S, Rim EY, Anbarchian T, Fish M, **Loh KM**, Red-Horse K, Nusse R (2025). Vascularization of neonatal liver lobules presages adult liver size. *Nature Communications* 16(1):9989.  
*Contribution: Development of Efnb2-CreER mouse model*
4. Wazny VK, Mahadevan A, Nguyen N, Wee H, Vipin A, Lam T, Tay KY, See JX, Sandhu G, Leow YJ, D'Agostino G, Graf M, Sivakumar A, Lin S, Phuc NCT, Chen JXY, Langley SR, Ang LT, **Loh KM**, Kandiah N, Augustine GJ, Cheung C (2025). Chronic cerebral hypoperfusion induces venous dysfunction via EPAS1 regulation in mice. *Nature Communications* 16:6302.  
*Contribution: Gene expression profiling*
5. Karigane D, Fan AC, Nishimura T, Kayamori K, Nakauchi Y, Köhnke T, Rangavajhula A, Ediriwickrema A, Benard BA, Thomas R, Zhao F, Stafford M, Suchy FP, Fowler JL, Chao MP, Zhang TY, **Loh KM**, Nakauchi H, Majeti R. Intra-leukemic interferon signaling suppresses expansion and mediates chemoresistance in human AML. *Blood Cancer Discovery* 7(1):68-84.

*Contribution: Hematopoietic differentiation of human pluripotent stem cells*

6. Niizuma K\*, Nishimura T\*, Villanueva J, Amaya L, Fowler JL, Isobe T, Nakauchi Y, Saavedra B, Xu H, Nakanishi M, Wilkinson AC, **Loh KM**, Shrager JB, Nakauchi H (2025). Development of iPSC-Derived T Cells Targeting EGFR Neoantigens in Non-Small Cell Lung Cancer. *Molecular Therapy Methods & Clinical Development* 33(3):101517.

*Contribution: Hematopoietic differentiation of human pluripotent stem cells*

7. Engel L, Liu KJ\*\*, Cui KW\*\*, de la Serna EL, Vachharajani VT, Dundes CE, Zheng SL, Begur M, **Loh KM**, Ang LT†, Dunn AR† (2025). A microfluidic platform for anterior-posterior human endoderm patterning via countervailing morphogen gradients in vitro. *iScience* 28(3):111744.

*Contribution: Project conception and manuscript writing*

8. Wang Z, Wang B, Niu D, Yin C, Bi Y, Cattoglio C, **Loh KM**, Lavis LD, Ge H, Deng W (2025). Mesoscale chromatin confinement facilitates target search of pioneer transcription factors in live cells. *Nature Structural & Molecular Biology* 32: 125-136.

*Contribution: Endoderm differentiation of human pluripotent stem cells*

9. Lee ES, Nguyen N, Young BE, Wee H, Wazny V, Lee KL, Tay KY, Goh LL, Chioh FW, Law MC, Lee IR, Ang LT, **Loh KM**, Chan MY, Fan BE, Dalan R, Lye DC, Renia L, Cheung C (2024). Inflammatory risk contributes to post-COVID endothelial dysfunction through anti-ACKR1 autoantibody. *Life Sci Alliance* 7: e202402598.

*Contribution: Vascular differentiation of human pluripotent stem cells*

10. Fowler JL\*, Zheng SL\*, Nguyen A\*\*, Chen A\*\*, Xiong X, Chai T, Chen JY, Karigane D, Banuelos AM, Niizuma K, Kayamori K, Nishimura T, Cromer MK, Gonzalez-Perez D, Mason C, Liu DD, Yilmaz L, Miquerol L, Porteus MP, Luca VC, Majeti R, Nakauchi H, Red-Horse K, Weissman IL, Ang LT†, **Loh KM**† (2024). Lineage-tracing hematopoietic stem cell origins in vivo to efficiently make human HLF+ HOXA+ hematopoietic progenitors from pluripotent stem cells. *Developmental Cell* 59: 1110-1131.e22.

*Featured in [Preview](#) by Mao & Li (2024), *Developmental Cell* 59: 1093-1095.*

11. Matusiak M, Hickey JW, van IJzendoorn DGP, Lu G, Kidzinski L, Zhu S, Colburg DRC, Luca B, Phillips DJ, Brubaker SW, Charville GW, Shen J, **Loh KM**, Okwan-Duodu DK, Nolan GP, Newman AM, West RB, van de Rijn M (2024). Spatially Segregated Macrophage Populations Predict Distinct Outcomes In Colon Cancer. *Cancer Discovery* 14(8):1418-1439.

*Contribution: Project planning and manuscript editing*

12. Vijayakumar S\*, Sala R\*, Kang G\*, Chen A, Pablo MA, Adebayo AI, Cipriano A, Fowler JL, Gomes DL, Ang LT, **Loh KM**†, Sebastiano V† (2023). Monolayer platform to generate and purify primordial germ-like cells in vitro provides insights into human germline specification. *Nature Communications* 14(1):5690.

13. Shah PP\*, Keough KC\*, Gjoni K\*, Santini GT, Abdill RJ, Wickramasinghe NM, Dundes CE, Karnay A, Chen A, Salomon REA, Walsh PJ, Nguyen SC, Whalen S, Joyce EF, **Loh KM**, Dubois N, Pollard KS†, Jain R† (2023). An atlas of lamina-associated chromatin across twelve human cell types reveals an intermediate chromatin subtype. *Genome Biology* 24: 16.

*Contribution: Human pluripotent stem cell differentiation*

14. Genuth NR, Shi Z, Kunimoto K, Hung V, Xu AF, Kerr CH, Tiu GC, Oses-Prieto JA, Salomon-Shulman REA, Axelrod JD, Burlingame AL, **Loh KM**, Barna M (2022). A stem cell roadmap of ribosome heterogeneity reveals a function for RPL10A in mesoderm production. *Nature Communications* 13: 5491.

*Contribution: Human pluripotent stem cell differentiation*

15. Gonzalez-Perez D, Das S, Antfolk D, Ahsan HS, Medina E, Dundes CE, Jokhai RT, Egan ED, Blacklow SC, **Loh KM**,

Rodriguez PC, Luca VC (2022). Affinity-matured DLL4 ligands as broad-spectrum modulators of Notch signaling. *Nature Chemical Biology* 19: 9-17.

*Contribution: Neuronal differentiation of human pluripotent stem cells*

16. Roodgar M, Suchy FP, Nguyen LH, Bajpai VK, Sinha R, Vilches-Moure JG, Van Bortle K, Bhadury J, Metwally A, Jiang L, Jian R, Chiang R, Oikonomopoulos A, Wu JC, Weissman IL, Mankowski JL, Holmes S, **Loh KM**, Nakauchi H†, VandeVoort CA†, Snyder MP† (2022). Chimpanzee and pig-tailed macaque iPSCs: Improved culture and generation of primate cross-species embryos. *Cell Reports* 40: 111264.

*Contribution: Improved method for primate pluripotent stem cell culture and manuscript writing*

17. Ang LT\*, Nguyen A\*, Liu KJ\*, Chen A\*\*, Xiong XC\*\*, Curtis M, Martin RM, Raftry BC, Ng CY, Vogel U, Lander A, Lesch BJ, Fowler JL, Holman AR, Chai T, Vijayakumar S, Suchy FP, Nishimura T, Bhadury J, Porteus MH, Nakauchi H, Cheung C, George SC, Red-Horse K, Prescott JB†, **Loh KM**† (2022). Generating human artery and vein cells from pluripotent stem cells highlights the arterial tropism of Nipah and Hendra viruses. *Cell* 185: 2523-2541.

*Featured in Nature Methods and Stanford Medicine News*

18. Chang CY\*, Shipony Z\*, Lin SG, Kuo A, Xiong X, **Loh KM**, Greenleaf WJ, Crabtree GR (2021). Increased ACTL6A occupancy within mSWI/SNF chromatin remodelers drives human squamous cell carcinoma. *Molecular Cell* 81: 4964-4978.

*Contribution: Human keratinocyte culture method*

19. Raftrey B, Williams M, Rios Coronado PE, Fan X, Chang AH, Zhao M, Roth R, Trimm E, Racelis R, D'Amato G, Phansalkar R, Nguyen A, Chai T, Gonzalez KM, Zhang Y, Ang LT, **Loh KM**, Bernstein D, Red-Horse K (2021). Dach1 Extends Artery Networks and Protects Against Cardiac Injury. *Circulation Research* 129:702-716.

*Contribution: Vascular differentiation of human pluripotent stem cells*

20. Martin RM\*, Fowler JL\*, Cromer MK, Lesch BJ, Ponce E, Uchida N, Wiebking V, Nishimura T, Porteus MH†, **Loh KM**† (2020). Genome edited orthogonal safeguards to improve the safety of human pluripotent stem cell-based therapies. *Nature Communications* 11: 2713.

21. Roth JG\*, Muench KL\*, Asokan A, Mallett VM, Gai H, Verma Y, Weber S, Charlton C, Fowler JL, **Loh KM**, Dolmetsch RE, Palmer TD (2020). Copy Number Variation at 16p11.2 Imparts Transcriptional Alterations in Neural Development in an hiPSC-derived Model of Corticogenesis. *eLife* 9: e58178.

*Contribution: Human pluripotent stem cell differentiation*

22. Cui KW\*, Engel L\*, Dundes CE, Nguyen TC, **Loh KM**†, Dunn AR† (2020). Spatially controlled stem cell differentiation via morphogen gradients: a comparison of static and dynamic microfluidic platforms. *Journal of Vacuum Science & Technology A* 38: 033205.

23. Wilkinson AC, Ishida R, Kikuchi M, Sudo K, Morita M, Crisostomo RV, Yamamoto R, **Loh KM**, Nakamura Y, Watanabe M, Nakauchi H, Yamazaki S (2019). Long-term ex vivo haematopoietic-stem-cell expansion allows nonconditioned transplantation. *Nature* 571:117-121.

*Contribution: Polyvinyl alcohol for hematopoietic stem cell culture*

24. George BM, Kao KS, Kwon HS, Velasco BJ, Poyser J, Chen A, Le AC, Chhabra A, Burnett CE, Cajuste D, Hoover M, **Loh KM**, Shizuru JA, Weissman IL (2019). Antibody conditioning enables MHC-mismatched hematopoietic stem cell transplants and organ graft tolerance. *Cell Stem Cell* 25, 185-192.

*Contribution: Heart transplantation studies and manuscript writing*

25. Ang LT, Tan AKY, Autio MI, Goh SH, Choo S, Lee KL, Tan J, Pan B, Lee JJ, Lum JJ, Lim Y, Yeo K, Wong J, Oh L, Chia P, Chen A, Chen QF, Weissman IL, **Loh KM**†, Lim B† (2018). A roadmap for human liver differentiation from pluripotent stem cells. *Cell Reports* 22, 2190–2205.

26. Allen WE\*, DeNardo LA\*, Chen MZ\*, Liu CD, **Loh KM**, Fenno LE, Ramakrishnan C, Deisseroth K†, Luo L† (2017).

*Updated Mar 3, 2026*

Thirst-associated preoptic neurons encode an aversive motivational drive. *Science* 357: 1149-1155.

27. Brown K\*, **Loh KM\***, Nusse R (2017). Live imaging reveals that the first division of differentiating human embryonic stem cells often yields asymmetric fates. *Cell Reports* 21: 301-307.
28. Nichane M, Javed A, Sivakamasundari V, Ganesan M, Ang LT, Kraus P, Lufkin T, **Loh KM†**, Lim B† (2017). Isolation and expansion of Sox9<sup>+</sup> mouse embryonic lung progenitors that generate both airway and alveolar lineages. *Nature Methods* 14, 1205-1212.  
Featured in [Stanford Medicine News](#)
29. **Loh KM\***, Chen A\*, Koh PW, Deng T, Sinha R, Tsai JM, Barkal AA, Shen KY, Jain R, Morganti RM, Ng SC, Fernhoff NB, George BM, Wernig G, Salomon RAE, Chen Z, Vogel H, Epstein JA, Kundaje A, Talbot WS, Beachy PA, Ang LT†, Weissman IL† (2016). Mapping the pairwise choices leading from pluripotency to human bone, heart, and other mesoderm cell types. *Cell* 166: 451-67.  
Featured in the [NIH Director's Blog](#), [Stanford Medicine News](#), [San Jose Mercury News](#) and [Fierce Biotech](#); accompanying [Cell Press Video Abstract](#) (one paper selected per issue); and [Preview](#) by *Kyba* (2016), *Cell Stem Cell* 19: 146-8.
30. Cheng H, Ang HYK, Farran CAEL, Li P, Fang H, Liu T, Kong SL, Chin ML, Lim EKH, Li H, Huber H, **Loh KM**, Loh YH, Lim B (2016). Reprogramming mouse fibroblasts into engraftable myeloerythroid and lymphoid progenitors: induction and underlying mechanisms. *Nature Communications* 7: 13396.
31. Masaki H, Kato-Itoh M, Umino A, Sato H, Ito K, Yanagida A, Hirabayashi M, Sasaki E, Yamaguchi T, **Loh KM**, Weissman IL, Nakauchi H (2016). Inhibition of apoptosis overcomes stage-related compatibility barriers to chimera formation in mouse embryos. *Cell Stem Cell* 19: 587-592.
32. Koh PW\*, Sinha R\*, Barkal AA, Morganti RM, Chen A, Weissman IL†, Ang LT†, Kundaje A†, **Loh KM†** (2016). An atlas of transcriptional, chromatin accessibility, and surface marker changes in human mesoderm development. *Scientific Data* 3: 160109.
33. Durruthy-Durruthy J, Briggs SF, Awe J, Ramathal CY, Karumbayaram S, Lee PC, Heidmann JD, Clark A, Karakikes I, **Loh KM**, Wu JC, Hoffman AR, Byrne J, Reijo Pera RA, Sebastiano V (2014). Rapid and efficient conversion of integration-free human induced pluripotent stem cells to GMP-grade culture conditions. *PLoS ONE* 9: e94231.
34. **Loh KM\***, Ang LT\*, Zhang J\*\*, Kumar V\*\*, Ang J, Auyeong JQ, Lee KL, Choo SH, Lim CY, Nichane M, Tan J, Noghabi MS, Azzola L, Ng ES, Durruthy-Durruthy J, Sebastiano V, Poellinger L, Elefanty AG, Stanley EG, Chen Q, Prabhakar S, Weissman IL, Lim B (2014). Efficient endoderm induction from human pluripotent stem cells by logically directing signals controlling lineage bifurcations. *Cell Stem Cell* 14: 237-52.  
Featured in [A\\*STAR Research](#)
35. Chan CK\*, Lindau P\*, Jiang W\*, Chen JY, Zhang LF, Chen CC, Seita J, Sahoo D, Kim JB, Lee A, Park S, Nag D, Gong Y, Kulkarni S, Luppen CA, Theologis AA, Wan DC, DeBoer A, Seo EY, Vincent-Tompkins JD, **Loh K**, Walmsley GG, Kraft DL, Wu JC, Longaker MT, Weissman IL (2013). Clonal precursor of bone, cartilage, and hematopoietic niche stromal cells. *Proc Natl Acad Sci USA* 110: 12643-8.
36. Ichida JK\*, Blanchard J\*, Lam K\*, Son EY\*, Chung JE, Egli D, **Loh KM**, Carter AC, Di Giorgio FP, Koszka K, Huangfu D, Akutsu H, Liu DR, Rubin LL, Eggan K (2009). A small molecule inhibitor of TGF- $\beta$  signaling replaces Sox2 in reprogramming by inducing *Nanog*. *Cell Stem Cell* 5: 491-503.

## **Publications (Review, Protocol, and Other Articles)**

Total Review, Protocol, and Other Articles: 23

37. Chai T\*, Chen JY\*, **Loh KM** (2025). Dopaminergic neurons entering the brain under the immunological cover of

darkness. *Cell Stem Cell* 32: 675-677.

38. Chen JY, **Loh KM** (2025). The placenta as a cradle, but not source, of blood? *PLoS Biology* 23: e3003021.
39. Zheng SL, Fowler JL, Chen JY, Li C, Lin E, Nguyen AT, Chen A, Daley GQ, Ang LT, **Loh KM** (2025). Protocol for the generation of HLF+ HOXA+ human hematopoietic progenitor cells from pluripotent stem cells. *STAR Protocols* 6: 103592.
40. **Loh KM**†, Zheng SL†, Liu KJ, Yin Q, Amir-Ugokwe ZA, Jha SK, Qi Y, Wazny VK, Nguyen AT, Chen A, Cheung C, Spiekerkoetter E, Red-Horse K, Ang LT† (2024). Protocol for efficient generation of human artery and vein endothelial cells from pluripotent stem cells. *STAR Protocols* 6: 103494.
41. Qu Y, **Loh KM** (2024). Can developmental signals shatter or mend our genomes? *Trends in Genetics* 40: 993-994.
42. Qu Y, **Loh KM** (2024). Reshaping Waddington's developmental landscape. *Nature Reviews Genetics* 25: 749.
43. **Loh KM**, Ang LT (2024). Building human artery and vein endothelial cells from pluripotent stem cells, and enduring mysteries surrounding arteriovenous development. *Seminars in Cell and Developmental Biology* 155(Pt C):62-75.
44. Zheng SL, **Loh KM** (2022). Creating artificial signaling gradients to spatially pattern engineered tissues. *Current Opinion in Biotechnology* 78: 102810.
45. Dundes CE, **Loh KM** (2020). Bridging naïve and primed pluripotency. *Nature Cell Biology* 22: 513-515.
46. Fowler JL, Ang LT†, **Loh KM**† (2019). A critical look: challenges in differentiating human pluripotent stem cells into desired cell-types and organoids. *WIREs Developmental Biology* 9: e368.
47. **Loh KM**, Palaria A, Ang LT (2019). Efficient differentiation of human pluripotent stem cells into liver cells. *Journal of Visualized Experiments* 148: e58975.
48. Nichane M, **Loh KM** (2018). Obliterating obstacles to an odyssey. *Cell Stem Cell* 23: 313-15.
49. Tan AKY, **Loh KM**, Ang LT (2017). Evaluating the regenerative potential and functionality of human liver cells in mice. *Differentiation* 98: 25-34.
50. **Loh KM**\*, van Amerongen R\*, Nusse R (2016). Generating spatial form and cellular diversity: Wnt signaling and the evolution of multicellular animals. *Developmental Cell* 38: 643-655.
51. **Loh KM**, Lim B, Ang LT (2015). Ex uno plures: molecular designs for embryonic pluripotency. *Physiological Reviews* 95: 245-295.
52. **Loh KM**, Lim B (2015). Equilibrium established. *Nature* 521: 299-300.
53. Roberts RM, **Loh KM**, Amita M, Bernardo AS, Adachi K, Alexenko AP, Schust DJ, Schulz LC, Telugu BP, Ezashi T, Pedersen RA (2014). Differentiation of trophoblast cells from human embryonic stem cells: to be or not to be? *Reproduction* 147: D1-D12.
54. Clevers H, **Loh KM**, Nusse R (2014). An integral program for tissue renewal and regeneration: Wnt signaling and stem cell control. *Science* 346: 1248012.
55. **Loh KM**, Lim B (2013). Rejuvenating Tithonus. *EMBO Reports* 14: 583-4.
56. **Loh KM**, Lim B (2013). Close encounters with full potential. *Nature* 502: 41-42.
57. Heng DJC, **Loh KM**, Ng HH (2012). Investigating the *bona fide* differentiation capacity of human pluripotent stem cells. *Cell Research* 22: 6-8.
58. **Loh KM**, Lim B (2012). Actors in the cell reprogramming drama. *Nature* 488: 599-600.

59. **Loh KM**, Lim B (2011). A precarious balance: pluripotency factors as lineage specifiers. *Cell Stem Cell*.  
Featured in *Editorial* “Our top 10 developments in stem cell biology over the last 30 years” by Armstrong et al., 2012; *Stem Cells* 30: 2-9.
60. **Loh KM**, Lim B (2010). Recreating pluripotency? *Cell Stem Cell* 7: 137-9.

## Publications (Books and Newspapers)

61. **Loh KM**, Lim B, Ang LT (2015). Stem cell genomics: developmental competence. *Principles and Practice of Genomic Medicine (2nd Edition)* by Oxford University Press.
62. **Loh KM\***, Soh BS\*, Tam WL, Lim B (2010). Molecular principles underlying the pluripotency and differentiation of embryonic stem cells. *Stem Cells: From Bench to Bedside (2nd Edition)* by World Bioscience.
63. **Loh KM**, Lim B (2010). Fears are based on biological myths. *The Straits Times* newspaper (Nov 8, 2010 issue).

## Patent Applications

1. Compositions comprising neurons and methods of using the same. PCT/US2024/044788.
2. Generating populations of human blood and blood vessel progenitors from pluripotent stem cells. PCT/US2024/033057.
3. Metabolic selection for glycogen-storing cells *in vitro*. PCT/US2024/015990.
4. Generating populations of human blood and blood vessel progenitors from pluripotent stem cells. PCT/US2021/026024.
5. Generation of primordial germ cells and methods of using the same. PCT/US2021/034925.
6. Orthogonal safety switches to eliminate genetically engineered Cells. PCT/US2021/018882.
7. Use of polyvinyl alcohol for cell culture of immune cells. PCT/US2020/065103.
8. Producing mesodermal cell types and methods of using the same. PCT/US2016/020488.
9. Methods of differentiating stem cells into liver cell lineages. PCT/SG2015/050359.
10. Methods of differentiating stem cells into one or more cell lineages. PCT/SG2013/000453.

## Teaching

**STEMREM201A (Stem Cell Biology & Regenerative Medicine)**: Autumn 2015-2017 (Lecturer), 2018-Current (Co-Director)

Leader of revised stem cell and developmental biology course for Stanford Ph.D. students, M.D. students and undergraduates. Created new curriculum that challenges students to reconstruct the historical experiments that led to major discoveries in stem cell and developmental biology. In each lecture, students are posed a question—for instance, how to discover what initiates symmetry breaking in the gastrulating embryo—and are asked to devise step-by-step the experiments they would perform to address this question, before being shown how the very same question was solved by pioneers in the field. All lectures drawn from >20 papers in the primary literature, listed in the Works Cited of each lecture. Presented or prepared 10 out of 17 total lectures and led 3 discussion sections (2018-onwards).

**STEMREM200 (Stem Cell Intensive)**: Autumn 2018-2020 (Co-Director), 2021-Current (Lecturer)

Co-leader of revised course to immerse incoming Stanford Ph.D. students in stem cell research. Organized curriculum and laboratory sessions. Presented 1 lecture.

**HUMBIO3A (Cell and Developmental Biology)**: Winter 2024-Current (Lecturer)

Presented 4 lectures on developmental and stem cell biology for Stanford undergraduates.

**DBIO210 (Logic and Circuitry of Multicellular Development)**: Spring 2019-Current (Lecturer)

Presented 1 lecture on early embryonic development and led 2 discussion sessions for Stanford Ph.D. students.

**HUMBIO157 (The Biology of Stem Cells):** Spring 2017 (Lecturer), 2019 (Co-Director)  
Co-leader of course to teach principles of stem cell biology and regenerative medicine to Stanford undergraduates (2019). Presented 3 lectures on pluripotency, lineage decisions and blood stem cells (2017, 2019).

**STEMREM202 (Stem Cells & Regenerative Medicine):** Winter 2017-2022 (Lecturer)  
Presented 1 lecture on pluripotent stem cell differentiation for Stanford Ph.D. students.

**BIO160 (Developmental Biology):** Winter 2020 (Lecturer)  
Presented 3 lectures on pluripotent and blood stem cells for Stanford undergraduates.

**IMMUNOL223 (Biology & Disease of Hematopoiesis):** Winter 2020-2025 (Lecturer)  
Presented 1 lecture on embryonic blood development and led 1 discussion session for Stanford Ph.D. students.

**MED223 (Cardiovascular and Pulmonary Sciences Seminar):** Winter 2024 (Lecturer)  
Presented 1 lecture on vasculature for Stanford M.D. and Ph.D. students.

## Oral Presentations

Total Oral Presentations: 132

*\*Held virtually*

- 2027 Gordon Research Conference on Developmental Biology (Castelvecchio Pascoli, Italy)—*pending*
- 2026 Specification of Endothelial Cell Phenotypes Workshop, North American Vascular Biology Organization (Germantown, MD, USA)\*  
Rutgers University (Newark, NJ, USA)—*pending*  
EMBO Workshop Building Networks – Engineering in Vascular Biology (Barcelona, Spain)—*pending*  
Stanford Maternal & Child Health Research Institute (Stanford, CA, USA)\*—*pending*  
International Society for Stem Cell Research (ISSCR) Meeting 2026 (Montréal, Canada)—*pending*
- 2025 Stanford Basic Science and Engineering Initiative (Stanford, CA, USA)  
15th Annual ALS Network Research Summit (San Francisco, CA, USA)  
Stanford 6th Annual Neuromuscular Conference (Stanford, CA, USA)  
Toronto Aging Biology Symposium (Toronto, Canada)  
University of Illinois Chicago, Department of Biochemistry and Molecular Genetics (Chicago, IL, USA)  
Gladstone Institutes and UCSF Cardiovascular Research Institute (San Francisco, CA, USA)  
Arc Institute (Palo Alto, CA, USA)  
Regenerative Medicine Seminar Series (ReMS), Stanford University (Stanford, CA, USA)  
Tucker Collins Lecture, Harvard Medical School (Boston, MA, USA)  
Dartmouth College (Hanover, NH, USA)  
University of Washington, Institute of Stem Cell and Regenerative Medicine Symposium (Seattle, WA, USA)  
Mazia Developmental Biology Symposium, Stanford Hopkins Marine Station (Pacific Grove, CA, USA)  
Breakthrough T1D Northern California Center of Excellence (Stanford, CA, USA)  
Cure SMA Annual Research and Clinical Care Meeting (Anaheim, CA, USA)  
WNT and Stem Cells Symposium (Stanford, CA, USA)  
Frontiers in Comparative Systems Virology Symposium, Chan-Zuckerberg Biohub (San Francisco, CA, USA)  
12th Aging Research & Drug Discovery Meeting (Copenhagen, Denmark)  
University of Copenhagen, Novo Nordisk Foundation Center for Stem Cell Medicine (Copenhagen, Denmark)

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- NIH Regenerative Medicine Summit (Rockville, MD, USA)  
Stanford Virology Seminar Series (Stanford, CA, USA)  
San José State University (San Jose, CA, USA)\*  
Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)  
Xaira Therapeutics (South San Francisco, CA, USA)
- 2024 UC Berkeley, Siebel Stem Cell Institute Symposium (Berkeley, CA, USA)  
Toronto Aging Biology Symposium (Toronto, Canada)  
47th Association for Research in Otolaryngology Annual Midwinter Meeting (Anaheim, CA, USA)  
Juvenile Diabetes Res. Foundation Northern California Center of Excellence (Stanford, CA, USA)  
International Society for Stem Cell Research (ISSCR), Cincinnati International Symposium (Cincinnati, OH, USA)  
Retro Biosciences (Redwood City, CA, USA)  
University of California Davis, Department of Biomedical Engineering (Davis, CA, USA)  
Replacing Aging, Edge Esmeralda (Healdsburg, CA, USA)  
Vasculata (Stanford, CA, USA)  
Children's Hospital Boston (Boston, MA, USA)  
Whitehead Institute for Biomedical Research, MIT (Cambridge, MA, USA)  
Packard Foundation Retreat (Monterey, CA, USA)  
EMBL Barcelona (Barcelona, Spain)  
NIH Progenitor Cell Translational Consortium, Hematopoietic Working Group (Boston, MA, USA)\*  
Kloster Seeon Angioscience Meeting (Seeon, Germany)  
86th Annual Meeting of the Japanese Society of Hematology (Kyoto, Japan)  
Single Ventricle Investigator Meeting (Denver, CO, USA)  
Breakthrough T1D California Center of Excellence (Stanford, CA, USA)  
University of Washington, Department of Genome Sciences (Seattle, WA, USA)  
Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)  
San José State University (San Jose, CA, USA)
- 2023 Gordon Research Conference on Vascular Cell Biology (Ventura, CA, USA)  
Bill and Melinda Gates Foundation, B Cell Therapy Meeting (Seattle, WA, USA)  
RIKEN BDR-CuSTOM Joint Organoid Symposium (Kobe, Japan)  
Cold Spring Harbor Asia Human Development Meeting (Awaji, Japan)  
Pew Biomedical Program Retreat (San Juan, PR, USA)  
Neurogenesis Workshop, Amaranth Foundation (San Francisco, CA, USA)  
University of Georgia (Athens, GA, USA)  
Thymune Therapeutics, Inc. (Cambridge, MA, USA)  
International Society for Stem Cell Research (ISSCR) Meeting 2023 (Boston, MA, USA)  
Davidson Institute Summit (Reno, NV, USA)  
Juvenile Diabetes Res. Foundation Northern California Center of Excellence (San Francisco, CA, USA)\*  
Samsara Biocapital (Palo Alto, CA, USA)  
San José State University (San Jose, CA, USA)  
Cold Spring Harbor Cell State Conversion Meeting (Cold Spring Harbor, NY, USA)  
Vascular Biology 2023, North American Vascular Biology Organization (Newport, RI, USA)  
Bill and Melinda Gates Foundation, B Cell Therapy Meeting (Seattle, WA, USA)\*  
University of Virginia (Charlottesville, VA, USA)  
Juvenile Diabetes Res. Foundation Northern California Center of Excellence (San Francisco, CA, USA)\*  
Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)

- 2022 Society for Laboratory Automation & Screening International Conference (Boston, MA, USA)\*  
 U.S. Centers for Disease Control and Prevention, Viral Special Pathogens Branch (Atlanta, GA, USA)  
 International Society for Stem Cell Research (ISSCR) Meeting 2022 (San Francisco, CA, USA)\*  
 DSO National Laboratories (Singapore, Republic of Singapore)  
 Institute of Molecular and Cell Biology, A\*STAR (Singapore, Republic of Singapore)  
 Infectious Diseases Laboratories, A\*STAR (Singapore, Republic of Singapore)  
 University of California San Francisco (UCSF), Jonah Platt Seminar (San Francisco, CA, USA)  
 Cold Spring Harbor Asia Human Development Meeting, Pre-Meeting Webinar (Awaji, Japan)\*  
 Cincinnati Children's Hospital Medical Center (Cincinnati, OH, USA)  
 San José State University (San Jose, CA, USA)  
 Regenerative Medicine Seminar Series (ReMS), Stanford University (Stanford, CA, USA)  
 University of Toronto, From Single-Cells to Tissue Symposium (Toronto, Canada)  
 Spinal Muscular Atrophy Foundation (San Diego, CA, USA)\*  
 Stanford Diabetes Research Center Annual Diabetes Research Forum (Stanford, CA, USA)  
 Amaranth Foundation (San Francisco, CA, USA)\*  
 Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)
- 2021 Kyoto University, Department of Medicine (Kyoto, Japan)\*  
 Single Ventricle Investigator Meeting, Additional Ventures (Palo Alto, CA, USA)\*  
 Chan-Zuckerberg Biohub, Infectious Disease Initiative (San Francisco, CA, USA)\*  
 Gladstone Institutes, Institute of Cardiovascular Disease (San Francisco, CA, USA)\*  
 National Resilience, Inc. (La Jolla, CA, USA)\*  
 Regenerative Medicine Seminar Series (ReMS), Stanford University (Stanford, CA, USA)\*  
 Memorial Sloan Kettering Cancer Center, Developmental Biology Program (New York City, NY, USA)\*  
 Juvenile Diabetes Res. Foundation Northern California Center of Excellence (San Francisco, CA, USA)\*  
 Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)
- 2020 Stanford University, Siebel Stem Cell Institute Workshop (Stanford, CA, USA)  
 Stanford-Gladstone Institute Retreat (Redwood City, CA, USA)  
 Sana Biotechnology, Inc. (Cambridge, MA, USA)  
 Stanford Center for Childhood Brain Tumors (Stanford, CA, USA)\*  
 Packard Foundation Retreat (Los Altos, CA, USA)\*  
 Additional Ventures Single Ventricle Seminar Series (Palo Alto, CA, USA)\*  
 Stanford University, Pediatric Endocrinology Seminar Series (Stanford, CA, USA)\*  
 Medical University of Graz (Graz, Austria)\*  
 Genentech, Inc. Regeneration Symposium (South San Francisco, CA, USA)\*  
 Juvenile Diabetes Res. Foundation Northern California Center of Excellence (San Francisco, CA, USA)\*
- 2019 UC Berkeley, Siebel Stem Cell Institute Workshop (Berkeley, CA, USA)  
 Merck & Co., Inc. (South San Francisco, CA, USA)  
 Regenerative Medicine Seminar Series (ReMS), Stanford University (Stanford, CA, USA)  
 3rd Stanford Center for Definitive and Curative Medicine Symposium (Stanford, CA, USA)  
 Genentech, Inc. (South San Francisco, CA, USA)  
 Erasmus University Medical Center (Rotterdam, Netherlands)  
 EMBL Barcelona, Spain (Barcelona, Spain)  
 3D Tissue Culture and Organoids Symposium (Okinawa, Japan)  
 Bay Area Stem Cell Conference (Pacific Grove, CA, USA)

- 3rd Stanford-RIKEN Center for Integrative Medical Sciences Symposium—*organizer* (Stanford, CA, USA)  
 VenRock (Palo Alto, CA, USA)  
 5AM Ventures Speaker Series (San Francisco, CA, USA)  
 International Society for Stem Cell Research (ISSCR) Meeting 2019 (Los Angeles, CA, USA)  
 Stanford University, Urology Research Seminar (Stanford, CA, USA)  
 Nanyang Technological University, LKC Medical School (Singapore, Republic of Singapore)  
 Calico Life Sciences, LLC (South San Francisco, CA, USA)  
 Juvenile Diabetes Res. Foundation Northern California Center of Excellence (San Francisco, CA, USA)  
 Stanford Institute for Stem Cell Biology & Regenerative Medicine (Stanford, CA, USA)  
 Augmented Cell Engineering Symposium, University of Tokyo (Tokyo, Japan)  
 42nd Molecular Biology Society of Japan Annual Meeting (Fukuoka, Japan)  
 Stanford Ludwig Center for Cancer Stem Cell Research and Medicine (Stanford, CA, USA)
- 2018 Stanford University, Siebel Stem Cell Institute Workshop (Stanford, CA, USA)  
 Stanford University, Vision (Ophthalmology) Seminar Series (Stanford, CA, USA)  
 Stanford University, Diabetes Research Center Seminar Series (Stanford, CA, USA)  
 Dutch Society for Stem Cell Research (Utrecht, Netherlands)  
 Hubrecht Institute/Princess Máxima Center for Pediatric Oncology, Netherlands (Utrecht, Netherlands)  
 2nd Stanford-RIKEN Center for Integrative Medical Sciences Symposium, Japan (Yokohama, Japan)  
 Kyoto University, Center for iPS Cell Research and Application (Kyoto, Japan)  
 Weill Cornell Medicine (New York City, NY, USA)  
 Memorial Sloan Kettering Cancer Center, Developmental Biology Program (New York City, NY, USA)  
 Frontiers in Organoid Medicine Symposium, Cincinnati Children’s Hospital (Cincinnati, OH, USA)  
 University of Southern California (Los Angeles, CA, USA)
- 2017 Regenerative Medicine Seminar Series (ReMS), Stanford University (Stanford, CA, USA)  
 San José State University (San Jose, CA, USA)  
 RIKEN Center for Integrative Medical Sciences, Japan (Yokohama, Japan)  
 Stanford University, Center for Definitive and Curative Medicine (Stanford, CA, USA)  
 UC Los Angeles, Department of Biological Chemistry Center (Los Angeles, CA, USA)  
 Fred Hutchinson Cancer Research Center, Clinical Research Division (Seattle, WA, USA)  
 1st Stanford-RIKEN Center for Integrative Medical Sciences Symposium (Stanford, CA, USA)  
 Stanford University, Center for Cell Biology (Stanford, CA, USA)  
 3rd CIRM Annual Stem Cell Genomics Retreat (Stanford, CA, USA)  
 UC Los Angeles, Broad Stem Cell Research Center (Los Angeles, CA, USA)  
 Stanford Institute for Stem Cell Biology & Regenerative Medicine (Stanford, CA, USA)  
 Duke University, Regeneration Next Initiative (Durham, NC, USA)  
 The Rockefeller University (New York City, NY, USA)  
 Fred Hutchinson Cancer Research Center, Basic Sciences Division (Seattle, WA, USA)  
 UC Berkeley, Siebel Stem Cell Institute Workshop (Berkeley, CA, USA)
- 2016 University of Pennsylvania, Institute for Regenerative Medicine (Philadelphia, PA, USA)  
 San José State University, California Inst. for Regen. Medicine Internship Reception (San Jose, CA, USA)  
 NIH Progenitor Cell Biology Consortium HSC Focused Workshop 2016 (Boston, MA, USA)  
 Stem Cell Society Singapore Symposium 2016, Singapore (Singapore, Republic of Singapore)  
 Cincinnati Children’s Hospital Medical Center (Cincinnati, OH, USA)  
 A\*STAR Investigatorship Symposium, Singapore (Singapore, Republic of Singapore)  
 International Society for Stem Cell Research (ISSCR) Meeting 2016 (San Francisco, CA, USA)

UC Santa Cruz, Department of Biomolecular Engineering (Santa Cruz, CA, USA)  
Carnegie Institute of Washington, Department of Embryology (Baltimore, MD, USA)

- 2015 Genome Institute of Singapore, A\*STAR (Singapore, Republic of Singapore)  
Institute of Molecular and Cellular Biology, A\*STAR (Singapore, Republic of Singapore)  
Stanford Institute for Stem Cell Biology & Regenerative Medicine (Stanford, CA, USA)  
Stem Cell Research Briefing Session for U.S. Senator Ron Wyden (Portola Valley, CA, USA)  
UC Berkeley, Siebel Stem Cell Institute Workshop (Berkeley, CA, USA)
- 2014 University of Cambridge Stem Cell Institute (Cambridge, UK)  
Cambridge Centre for Trophoblast Research Annual Meeting (Cambridge, UK)  
Center for Genomic Regulation (Barcelona, Spain)  
Stanford Reproductive and Stem Cell Biology Symposium 2014 (Stanford, CA, USA)
- 2013 Stem Cell Society Singapore Symposium 2013 (Singapore, Republic of Singapore)

## Public and Professional Activities

- 2022-23, 2026 Hertz Thesis Prize Review, Hertz Foundation  
2024-2025 Hertz Summer Workshop Committee, Hertz Foundation  
2024-2025 Hertz Fellowship Selection Committee, Hertz Foundation  
2022 Annual Meeting Planning Committee, The Pew Charitable Trusts  
2022-Current Catalyst Advisory Board, Additional Ventures Foundation  
2020, 2023-24 Abstract Review Committee, International Society for Stem Cell Research (ISSCR)  
2020-Current Scientific Advisory Board, Californians for Cures Foundation  
2015-2018 Scientific Advisory Board, Americans for Cures Foundation

**Ad hoc manuscript reviewer:** *Nature, Science, Cell, Nature Genetics, Cell Stem Cell, Nature Cell Biology, Nature Methods, Nature Protocols, Proc Natl Acad Sci USA, eLife, PLoS Biology, Stem Cells, Stem Cell Reports, Stem Cell Research, Genome Biology, FASEB Journal, iScience, Nature Communications, ACS Biomaterials Science & Engineering, Development Growth and Differentiation, Review Commons, Cell Reports Methods, Journal of Visualized Experiments, Haematologica, Cancer Discovery, Vascular Biology, Communications Biology, Trends in Cell Biology, Science Advances*

**Grant or award reviewer:** Roy J. Carver Charitable Trust, Stanford Maternal and Child Health Research Institute, Genome British Columbia, European Research Council, UK Medical Research Council, Genentech, Inc., Additional Ventures Foundation, Canada Natural Sciences and Engineering Research Council, Dutch Research Council (NWO), Nanyang Technological University, Stanford Diabetes Research Center, Stanford Cancer Institute, L'Oréal Singapore For Women In Science National Fellowship, Davidson Institute for Talent Development, Hertz Foundation, US National Science Foundation

**Scientific consultant or advisor:** Merck Research Laboratories, Sana Biotechnology, VenRock, Versant Ventures, Iris Medicine, Dimension II, Stately Bio, 48Bio, Exir Bio, Thymune, Retro Biosciences

### Conferences organized:

- 2025 Hertz Foundation Summer Workshop  
2022 Pew Biomedical Program Annual Meeting

## Outreach and Diversity Activities

- 2024 *Fremont High School:* Presentation on stem cell research for high school students.

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2024	<i>Stanford GTCA</i> : Lab tours and presentations for community college students to introduce them to stem cell research.
2023	<i>Stanford Community College Outreach Program (CCOP) and Science Small Groups (SSG)</i> : Co-principal investigator of a Packard Foundation DEI Seed Grant that fund CCOP and SSG, Stanford programs that have provided several hundred of local community college students with research and mentorship opportunities. Successfully nominated trainee leaders of CCOP and SSG for the Stanford President's Award for Excellence Through Diversity and Stanford Postdoc Justice, Equity, Diversity, and Inclusion Champion Award.
2023	<i>Stanford ADVANCE Undergraduate Institute</i> : “Why consider research?” outreach panel for minority students applying to Ph.D. programs.
2023-2024	<i>Juvenile Diabetes Research Foundation</i> : Outreach to patients with type 1 diabetes and their families, including panel discussion and lab tour.
2021, 2023	<i>Davidson Institute for Talent Development</i> : In-person and virtual classes on stem cell and developmental biology for 5- to 18-year-old students.
2021-2025	<i>Stanford EXPLORE Lecture</i> : Summer lecture for high school students.
2021	<i>Simons Foundation-National Society of Black Physicists</i> : Outreach panel for minority students applying for Ph.D. fellowships.
2020-2024	<i>Stanford Developmental Biology and Stem Cell Biology Ph.D. Program Outreach Panels</i> : Outreach panel for prospective Ph.D. applicants, often from underrepresented backgrounds.
2019, 2023	<i>Thinks &amp; Drinks</i> : Science outreach presentations for adults in San Francisco.
2018, 2021	<i>Stanford SIMR Program</i> : Mentorship of high school interns, often drawn from underrepresented backgrounds.
2015-2018	<i>Americans for Cures</i> : Scientific advisor for public outreach efforts to explain stem cell research to the general public using YouTube videos.

## Institutional Service

### *Stanford Institute for Stem Cell Biology & Regenerative Medicine*

2024-2025	Assistant Professor Search Committee, Institute for Stem Cell Biology & Regenerative Medicine
2024-Current	Curriculum Lead, Institute for Stem Cell Biology & Regenerative Medicine
2021-2022	Executive Committee (formerly Steering Committee), STEMREM Ph.D. Program
2020-2022	1 <sup>st</sup> Year Ph.D. Student Mentorship Program, STEMREM Ph.D. Program
2020	COVID19 Research Recovery Committee, Lokey Stem Cell Research Building
2019-Current	Graduate Student Awards Committee, STEMREM Ph.D. Program ( <i>founder, committee chair</i> )
2019-2023	Organizer, Stanford ISCBRM-RIKEN IMS Annual Symposium
2018-2022	Retreat Committee, Institute for Stem Cell Biology & Regenerative Medicine ( <i>founder, committee chair</i> )
2017-Current	Admissions Committee, STEMREM Ph.D. Program

### *Stanford Department of Developmental Biology*

2021-Current	Organizer, Dept. of Developmental Biology, Stanford Frontiers in Biology Seminar Series
2019-2024	1 <sup>st</sup> Year Ph.D. Student Mentorship Program, Developmental Biology Ph.D. Program
2018-Current	Admissions Committee, Developmental Biology Ph.D. Program

### *Stanford University*

2025-Current	Interview Committee, Stanford M.D./Ph.D. Student Program
2023-Current	Review Committee, Stanford Maternal & Child Health Research Institute Postdoctoral Fellowship Program
2023-Current	Junior Faculty Mentoring Committee, Stanford Department of Biology
2022-2023	Faculty Search Evaluation Committee, Stanford Department of Biology

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- 2022-Current *Ad Hoc* Member, Limited Submission Grant Review Committee, Stanford Office of the Vice Provost and Dean of Research
- 2021-2022 Faculty Search Committee, Stanford BASE Initiative
- 2020-Current Co-Leader, Immunology, Transplantation and Stem Cells in Diabetes Affinity Group, Stanford Diabetes Research Center
- 2018-Current NIH T32 Training Grant-affiliated Faculty, T32GM007790 (Stanford Genetics and Developmental Biology Training Program); T32HL120824 (Stanford Program in Translational and Experimental Hematology); T32GM119995 (Stanford Graduate Training in Stem Cell Biology and Regenerative Medicine)