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**CURRICULUM VITAE**

**Name: Matthias Hebrok**

All Since 2017

Citations 19089 7593

h-index 70 49

i10-index 112 101

Position: Professor, Step 7

Director, Diabetes Center

Hurlbut-Johnson Distinguished Professor in Diabetes Research

Department of Medicine

Address: HSW 1116, Box 0540

513 Parnassus Ave., HSW 1116

San Francisco, CA 94143-0573

Tel.: (415) 514-0820

Fax: (415) 564-5813

e-mail: [mhebrok@diabetes.ucsf.edu](mailto:mhebrok@diabetes.ucsf.edu)

**EDUCATION:**

1983-1985 Bernd-Blindow School, Bückeburg, Germany BTA Biology

1986-1992 Albert-Ludwig University, Freiburg, Germany Diploma Cell/Mol Biology

1992-1995 Max-Planck-Institute & Albert-Ludwig

University, Freiburg, Germany Ph.D.Developmental Biology

1996-1999 Howard Hughes Medical Institute Postdoc. Developmental Biology

and Harvard University Fellow

**PRINCIPAL POSITIONS HELD:**

1999-2005 University of California, San Francisco Assistant Professor Medicine

2005-2009 University of California, San Francisco Associate Professor Medicine

2008 University of California, San Francisco Interim Director Diabetes Center

2009-2010 University of California, San Francisco Assoc. Director Research Diabetes Center

2009-present University of California, San Francisco Professor Medicine

2010-2020 University of California, San Francisco Director Diabetes Center

2010-present University of California, San Francisco Director Metabolic Res. Unit

#### HONORS AND AWARDS:

1994 Graduate Student Research Award of the Hoechst AG, Frankfurt

1995 Post-doctoral Fellowship from the Max-Planck Society

1996 Post-doctoral Fellowship from the German Research Society (DFG)

1997-1999 Post-doctoral Fellowship from the Howard Hughes Medical Institute (HHMI)

1999 Sandler Program in Basic Sciences Start-up Award

2000 Sandler Award in Basic Sciences

2000 Career Development Award, Juvenile Diabetes Research Foundation

2004 Guest Professorship, University of Ulm, Germany

2006 Scholar Award, Juvenile Diabetes Research Foundation

2007 Hurlbut-Johnson Endowed Chair in Diabetes Research

2009- Hurlbut-Johnson Distinguished Professor in Diabetes Research

2009 Charles I. Siegal Memorial Lecture, Dana Farber Cancer Center, Harvard Medical School

2012 Distinguished Achievement Award in Pancreatic Cancer Research and Clinical Management, Chinese Society of Clinical Oncology (CSCO, Chinese equivalent of ASCO)

2013-15 Chair, NIH Study Section, Cellular Aspects of Diabetes and Obesity (CADO)

2014 Paget Lecture, Barts Cancer Institute, Queen Mary University of London, UK

2015 Keynote lecture, 4th Diabetes Centers & Units Meeting, Jeddah, Saudi Arabia

2015 Gerold & Kayla Grodsky Award, Juvenile Diabetes Research Foundation

2015 Frank Brooks State of the Art Lecture, American Pancreatic Association

2016 Honorary Medical Staff Award, Marin General Hospital

2019- Honorary Professor, Technical University, Dresden, Germany

2019 Plenary lecture, AIBIS, Korean Society for Endocrinology, Seoul, Korea

2020 JDRF Greater Bay Area Chapter Innovation Award

2021 Sixth annual Carolyn Clifford Distinguished Lecture on Nutrition and Cancer, UC Davis

2021 Global Visiting Professorship, Technical University Munich

2021 Senior Fellow, Technical University Dresden

**DIVERSITY, EQUITY and INCLUSION (DEI)**

I am strongly committed to diversity, equity and inclusion (DEI). I believe that incorporating the DEI values in our laboratories provides exciting opportunities for trainees while simultaneously enhancing the work environment through the multitude of different perspective from our co-workers. The majority of my own laboratory consists of women members of many nationalities and ethnic backgrounds, and I have supported my trainees not only during their tenure in my group but throughout their careers beyond UCSF. As Director of the Diabetes Center I worked on increasing the number of women faculty and those from diverse ethnic backgrounds. One of my last acts as Director of the Diabetes Center in 2020 was to initiate the recruitment of another outstanding woman PI to our Center (Qizhi Tang). At the University level, I served for five years on the Dean’s Diversity Fund Committee for Faculty Recruitment and Retention and recently completed the training to become a DEI Champion at UCSF.

2015 – 2020 Member, Dean’s Diversity Fund Committee for Faculty Recruitment and Retention (Watson Scholars Initiative)

2021 Diversity, Equity, and Inclusion Champion Training

**KEYWORDS/AREAS OF INTEREST:**

Pancreas development, Diabetes, Pancreatic cancer, embryonic signaling pathways, Hedgehog/Wnt signaling pathways, ß-cells, embryonic stem cells

**RESEARCH AND CREATIVE ACTIVITIES**

**PEER REVIEWED PUBLICATIONS:**

1. **Hebrok, M.**, Wertz, K. and E.-M. Füchtbauer (1994): *M-twist* is an inhibitor of muscle differentiation. *Developmental Biology* **165**, 537-544.
2. Rohwedel, J., Horak, V., **Hebrok, M.,** Füchtbauer, E.-M., and A. M. Wobus (1995): *M-twist* expression inhibits mouse embryonic stem cell-derived myogenic differentiation *in vitro*. *Exp. Cell Res.* **220**, 92-100.
3. **Hebrok, M.**,Füchtbauer, A. and E.-M. Füchtbauer (1997): Repression of muscle-specific gene activation by the murine twist protein. *Exp. Cell Res.* **232**, 295-303.
4. Kim, S. K., **Hebrok, M.** and D. A. Melton (1997): Notochord to endoderm signaling is required for pancreas development. *Development* **124**, 4243-4252.
5. **Hebrok, M.,** Kim, S. K. and D. A. Melton (1998): Notochord repression of endodermal sonic hedgehog permits pancreas development. *Genes & Development* **12**, 1705-1713.
6. **Hebrok, M.,** Kim, S. K. and D. A. Melton (1999): Screening for novel pancreatic genes expressed during embryogenesis. *Diabetes* **48**, 1550-1556.
7. Kim, S. K., **Hebrok, M.,** Li, E., Oh, P., Schrewe, H., Harmon, E. B., Lee, J. S. and D. A. Melton. (2000): Activin receptor patterning of foregut organogenesis. *Genes & Development* **14,** 1866-1871.
8. **Hebrok, M.,** Kim, S. K., St-Jacques, B., McMahon A. P. and D. A. Melton. (2000): Regulation of pancreas development by Hedgehog signaling. *Development* **127**, 4905-4913*.*
9. Kawahira, H., Tzanakakis, E., Ma, N., McMahon, A. P., Chuang, P.-T., and **M. Hebrok** (2003): Combined activities of Hedgehog signaling inhibitors regulate pancreas development. *Development* **130,** 4871-4879.
10. Thayer\*, S. P., Pasca di Magliano, M., Heiser, P.W., Roberts, D. J., Nielsen, C. M., Lauwers, G. Y., Qi, Y.P., Gysin, S., Fernandez-del Castillo, F., Yajnik, V., Antoniu, B., McMahon, M., Warshaw, A. L., and **M.** **Hebrok\*** (2003): Hedgehog is an early and late mediator of pancreatic cancer tumorigenesis. *Nature* **425***,* 851 - 856. \*Co-corresponding authors.
11. Cano, D. A., Murcia, N. S., Pazour, G. J. and **M.** **Hebrok** (2004): Orpk mouse model of polycystic kidney disease reveals essential role of primary cilia in pancreatic tissue organization. *Development* **131,** 3457-3467.
12. Kawahira, H., Scheel. D. W., Smith, S. B., German, M. S., and **M. Hebrok** (2005): Hedgehog signaling regulates expansion of pancreatic epithelial cells. *Developmental Biology* **280**, 111-121.
13. Perez, S. Cano, D. A., Dao-Pick, T., Rougier, J.-P., Werb, Z., and **M. Hebrok** (2005) Matrix metalloproteinases 2 and 9 are dispensable for pancreatic islet formation and function in vivo. *Diabetes* **54**, 694-701*.*
14. Heiser, P. W., Lau, J. Taketo, M., Herrera P., and **M. Hebrok** (2006): Stabilization of β-catenin impacts pancreas growth. *Development* **133**, 2023-2032*.*
15. Sekine, S., Lan, B., Bedolli, M.,Feng, S. and **M. Hebrok** (2006):Liver-specific loss of ß-catenin blocks glutamine synthesis pathway activity and cytochrome p450 expression in mice. *Hepatology* **43**, 817-25*.*
16. Pasca di Magliano, M. Sekine, S., Ermilov, A. Brown, J. Dlugosz, A.A., and **M. Hebrok** (2006): Hedgehog/Ras interactions regulate early stages of pancreatic cancer. *Genes & Development* **20***,* 3161-3173.
17. Cano D. A., Sekine S. and**M. Hebrok** (2006): Primary cilia deletion in pancreatic epithelial cells results in cyst formation and pancreatitis. *Gastroenterology* **131,** 1856-1869*.*
18. Sekine, S., Gutierrez, P. J. A., Lan, B. Y.-A., Feng, S. and **Hebrok, M** (2007): Liver-specific loss of ß-catenin results in delayed hepatocyte proliferation after partial hepatectomy. *Hepatology* **45,** 361-368*.*
19. Morton, J.P., Mongeau, M.E., Morris, J.P., Klimstra, D.S., Lee, Y.C., Kawaguchi, Y., Wright, C.V.E., **Hebrok, M.**, and B. C. Lewis (2007): Sonic hedgehog acts at multiple stages during pancreatic tumorigenesis. *PNAS* **104**, 5103-5108*.*
20. Rulifson, I. C., Heiser, P., Karnik, S. K., ten Berge, D., Gu, X., Taketo, M., Nusse, R., **Hebrok, M.**, and S. K. Kim (2007): Wnt signaling regulates pancreatic ß-cell proliferation, *PNAS* **104**, 6247-6352*.*
21. Puri, S. and **M. Hebrok** (2007): Dynamics of embryonic pancreas development using real-time imaging, *Developmental Biology* **306**:82-93; Mar 12; [Epub ahead of print]. PMID: 17448459
22. Nawroth, R.,Cervantes, S.,McManus, M.,**Hebrok,M.** and S. D. Rosen (2007): Extracellular sulfatases, elements of the wnt signaling pathway, positively regulate growth and tumorigenicity of human pancreatic cancer cells. *PLoS ONE,* 2007 Apr 25;2:e392.
23. Pasca di Magliano, M. Biankin, A. V., Heiser, P. W., Cano, D. A., Gutierrez, P. J. A., Deramaudt, T., Segara, D., Dawson, A. C., Kench, J. G., Henshall, S. M., Sutherland, R. L., Dlugosz, A., Rustgi, A. K., and **M. Hebrok** (2007): Wnt signaling in pancreatic cancer. *PLoS ONE* 2(11): e1155. oi:10.1371/journal.pone.0001155.
24. Lee, J., Wu, X., Pasca di Magliano, M., Peters, E. C., Wang, Y., Hong, J., **Hebrok, M.**, Ding, S., Cho, C. Y. and P. G. Schultz. (2007): A Small Molecule Antagonist of the Hedgehog Signaling Pathway, *ChemBioChem* **8**(16):1916-1919.
25. Burris, R. and **M. Hebrok** (2007): Pancreatic innervation in mouse development and ß-cell regeneration. *Neuroscience* **150** (3):592-602; Nov 8; [Epub ahead of print]. PMID: 18006238
26. Regard. J., Kataoka, H., Cano, D., Camerer, E., Yin, L., Zheng, Y.-W., Dolganov, G., Kobilka, B., Scanlan, T., **Hebrok, M.** and S. R. Coughlin (2007): Probing cell type specific functions of Gi signaling in vivo identifies novel regulators of insulin secretion. *Journal of Clinical Investigation* **117** (12): 4034-43. PMID: 17992256
27. Cano,D.A., Rulifson, I.C., Heiser,P.W., Swigart, L.B., Pelengaris, German, M.S., Evan, G. I., Bluestone, J.A.,and **M. Hebrok** (2008):Regulated ß-cell regeneration in the adult mouse pancreas, *Diabetes* **7** (4): 958-966, Dec 14. 2007; [Epub ahead of print].
28. Heiser, P. W., Cano, A. V., Landsman, L., Kim, G., Kench, J., Klimstra, D. S., Taketo, M., Biankin D. A., and **M. Hebrok** (2008): Stabilization of ß-catenin induces pancreas tumor formation. *Gastroenterology* **135** (4):1288-300. [Epub 2008 Jul 9]. PMID: 18725219
29. Puri, S., Cano, D. A., and **M. Hebrok** (2009): A role for Von-Hippel Lindau Protein in Pancreatic ß-cell function. *Diabetes*, 58(2):433-41, 2008 Nov. 25 [Epub ahead of print]. PMID: 19033400
30. Cervantes, S., Yamaguchi, T. and **M. Hebrok** (2009): *Wnt5a* is essential for intestinal elongation. *Developmental Biology,* 326(2):285-94,2008 Dec 7. [Epub ahead of print]. PMID: 19100728
31. Nolan-Stevaux, O., Lau, J., Truitt, M. L., Chu, G. C., **Hebrok, M.**, Fernandez-Zapico, M. and D. Hanahan (2009): GLI1 is regulated through Smoothened-independent mechanisms in neoplastic pancreatic ducts and mediates PDAC cell survival and transformation. *Genes & Development* **23** (1): 24-36*.* PMID: 19136624
32. Sekine, S., Ogawa, R., Ito, R., Hiraoka, N., McManus, M.T., Kanai, Y., and **M. Hebrok** (2009): Disruption of *Dicer1* Induces Dysregulated Fetal Gene Expression and Promotes Hepatocarcinogenesis. *Gastroenterology* **136** (7):2304-2315. e1-4. Epub 2009 Mar 6
33. Sekine, S., Ogawa, R., McManus, M.T., Kanai, Y., and **M. Hebrok** (2009): Dicer is required for proper liver zonation. *Journal of Pathology* **219** (3):365-722009. Jul 27. [Epub ahead of print].
34. Morris, J. P., Cano, D. A., Sekine, S., Wang, S. and **M. Hebrok** (2010): ß-catenin blocks Kras dependent reprogramming of acini into pancreatic cancer precursor lesions in mice. *J Clin Invest*, 120(2):508-20; 2010 Jan 11. pii: 40045. doi: 10.1172/JCI40045. [Epub ahead of print]*.* (PMCID: [PMC2810083](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2810083/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
35. Lau, J. and **M. Hebrok** (2010): Epithelial loss of Hedgehog signaling in pancreas reveals novel requirement for pathway in endocrine cell formation and function. *Diabetes*. 59(5):1211-21. doi: 10.2337/db09-0914. Epub 2010 Feb 25. PMID: 20185815
36. Cervantes, S., Lau, J., Cano, D. A., Borromeo-Austin, C. and **M. Hebrok** (2010): Primary cilia regulate Gli/Hedgehog activation in pancreas. *PNAS,* 2010 Jun 1;107(22):10109-14. Epub 2010 May 17*.* PMID: 20479231. (PMCID: [PMC2890485](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2890485/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
37. Kockel, L., Kerr, K., Melnick, M., **Hebrok, M.** and N. Perrimon (2010): Dynamic switch of negative feedback regulation in *Drosophila* Akt-Tor signaling. *PLoS Genetics*, 2010 Jun 17;6(6):e1000990. PMID: 20585550
38. Fukuda, A., Wang, S., Morris, J. P. IV, Folias, A. E., Liou, A., Kim, G. E., Akira, S., Boucher, K. B., Firpo, M. A., Mulvihill, S., and **M. Hebrok** (2011): Stat3 and MMP7 Contribute to Pancreatic Ductal Adenocarcinoma Initiation and Progression. *Cancer Cell,* **19**, 441–455. PMID: 21481787. (PMCID: [PMC3075548](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3075548/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
39. Ohi, Y., Hong, C., Qin, H., Blouin, L., Polo, J.,Guo, Qi, Z., Downey, S. L., Warren, L., Rossi, D. J., Yu, J., **Hebrok, M.**, Hochedlinger, K.,Costello, J. F., Song, J. S., and M. Ramalho-Santos (2011): Incomplete epigenetic reprogramming and somatic cell memory in human iPS cells. *Nature Cell Biology.* 2011 May;13(5):541-9. Epub 2011 Apr 17*.* PMID: 21499256
40. Landsman, L., Nijagal, A., Whitechurch, T., J., VanderLaan, R. L., Zimmer, W. E., MacKenzie, T. C., and **M. Hebrok**(2011): Pancreatic mesenchyme regulates epithelial organogenesis throughout development. *PLoS Biology*, 2011 Sep;9(9):e1001143. Epub 2011 Sep 6. PMID: 21909240*.*
41. Landsman, L., Parent, A. and **M. Hebrok** (2011): Elevated Hedgehog signaling causes ß-cell dedifferentiation in mice. *PNAS,* 2011 Oct 11;108(41):17010-5. Epub 2011 Oct 3. PMID: 21969560
42. Qin, H., Blaschke, K., Wei, G., Ohi, Y., Blouin, L., Qi, Z., Yu, J., Yeh, R.-F., **Hebrok, M.**, and M. Ramalho-Santos (2012): Transcriptional analysis of pluripotency reveals the Hippo pathway as a barrier to reprogramming. *Human Molecular Genetics*, *Jan 27 (Epub)*. PMID: 22286172
43. Fukuda, A., Morris, J. P. IV, and **M. Hebrok** (2012): Bmi1 is required for regeneration of the exocrine in mice. *Gastroenterology*. 143(3):821-31. [Epub ahead of print]. PMID: 22609312. (PMCID: [PMC3485080](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3485080/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
44. Kopp, J. L., von Figura, G., Mayes, E., Liu, F.-F., Dubois, C. L., Morris IV, J. P., Pan, F. C., Akiyama, H., Wright, C. V. E., Jensen, K., **Hebrok, M.**, and M. Sander (2012): Identification of Sox9-dependent acinar-to-ductal reprogramming as the principal mechanism for initiation of pancreatic ductal adenocarcinoma. *Cancer Cell,* 2012 December 11; 22(6): 737–750. Published online 2012 November 29. doi: 10.1016/j.ccr.2012.10.025 PMID:23201164. PMCID: PMC3568632
45. Guo, T., Landsman, L., Li, N., and **M. Hebrok** (2013): Factors expressed by murine embryonic pancreatic mesenchyme enhance generation of INSULIN-producing cells from hESCs. *Diabetes*. 2013 May;62(5):1581-92. doi: 10.2337/db12-0167. Epub 2013 Jan 10, PMID: 23305648.
46. Lin, W.-C., Rajbhandari, N., Liu, C., Sakamoto, K., Zhang, Q., Triplett, A. A., Batra, S., Opavsky, R., Felsher, D. W., DiMaio, D. J., Hollingsworth, M. A., Morris, J. P., **Hebrok, M.**, Witkiewicz, A. K., Brody, J. R., Rui, H., and Kay-Uwe Wagner (2013): [Dormant Cancer Cells Contribute to Residual Disease in a Model of Reversible Pancreatic Cancer](http://www.ncbi.nlm.nih.gov/pubmed/23467612). *Cancer Research.* 2013 Mar 15;73(6):1821-1830. Epub 2013 Mar 6.PMID: 23467612. (PMCID: [PMC3602120](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602120/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
47. von Figura, G., Morris, J. P., and **M. Hebrok** (2013): [Nr5a2 maintains acinar cell differentiation and constrains oncogenic Kras-mediated pancreatic neoplastic initiation](https://vpn.ucsf.edu/pubmed/,DanaInfo=www.ncbi.nlm.nih.gov+23645620). *Gut*. 2013 May 3. [Epub ahead of print], PMID: 23645620*.* (PMCID: [PMC3883808](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883808/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
48. Parent, A., Russ, H. A., Kahn, I., Laflam, T. N., Metzger, T. C. Anderson\*, M. S., and **M. Hebrok\*** (2013): Generation of functional thymic epithelium from human embryonic stem cells that supports host T cell development. *Cell Stem Cell,* 2013 Aug 1;13(2):219-29. doi: 10.1016/j.stem.2013.04.004. Epub 2013 May 16. PMID: 23684540*.* \*Co-corresponding authors.
49. Zhang, Y., Morris IV, J. P., Yan, W., **Hebrok, M.**, Millar, S., and M. Pasca di Magliano (2013): Wnt/β-catenin pathway activity is necessary for pancreatic carcinogenesis in mice. *Cancer Research.* 2013 Aug 1;73(15):4909-4922. Epub 2013 Jun 12*.* PMID: 23761328. PMCID: PMC3763696
50. Greer, R. L., Staley, B., Liou, A., Paulson, A. K., and **M. Hebrok** (2013): Numb regulates acinar cell dedifferention and survival during pancreatic damage and acinar to ductal metaplasia. *Gastroenterology*. 2013 Jul 24. doi:pii: S0016-5085(13)01078-0. 10.1053/j.gastro.2013.07.027. [Epub ahead of print]. PMID: 23891977. (PMCID: [PMC3805717](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805717/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
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54. von Figura, G., Fukuda, A., Liku. M. E., Morris, J. P., Kim, G. E., Russ, H. A., Firpo, M. A., Mulvihill, S., Mueller, W. F., Busch, A., Hertel, K. J., and **M. Hebrok** (2014): The chromatin regulator Brg1 suppresses formation of intraductal papillary mucinous neoplasm and pancreatic ductal adenocarcinoma. *Nature Cell Biology,* 2014 Feb 23. doi: 10.1038/ncb2916. [Epub ahead of print]. PMID: 24561622*.* (PMCID: [PMC4684081](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4684081/?tool=nihms%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20))
55. Morris IV, J. P., Vanderlaan, R., Russ, H. A., von Figura, G., Kim, G. E., Busch, A., Lee, J., Hertel, K. J., Kim, S., McManus, M., and **M. Hebrok** (2014): [Dicer regulates differentiation and viability during mouse pancreatic cancer initiation.](http://www.ncbi.nlm.nih.gov/pubmed/24788257) *PLoS One*. 2014 May 1;9(5):e95486. doi: 10.1371/journal.pone.0095486. eCollection 2014. PMID: 24788257
56. Folias, A. E., Penaranda, C., Su, A. L., Bluestone, J. A. and **M. Hebrok** (2014): [Aberrant Innate Immune Activation following Tissue Injury Impairs Pancreatic Regeneration.](http://www.ncbi.nlm.nih.gov/pubmed/25010227) *PLoS One*. 2014 Jul 10;9(7):e102125. doi: 10.1371/journal.pone.0102125. eCollection 2014. PMID: 25010227
57. Singh, S. K., Chen, N.-M., Hessmann, E., Siveke, J., Lahmann, M., Singh, G., Voelker, N., Vogt, S., Esposito, I., Schmidt, A., Brendel, C., Stiewe, T., Gaedcke, J., Merenberger, M., Crawford, H. C., Bamlet, W. R.,Zhang, J.S., Li, X.-K., Billadeau, D. D., **Hebrok, M.**, Neesse, A., Koenig, A., and V. Ellenrieder (2015): Antithetical NFATc1-Sox2 and p53-miR200 signaling networks govern pancreatic cancer cell plasticity. *Embo J.* 2015 Jan 13. pii: e201489574. [Epub ahead of print]*.* PMID: 25586376
58. Chen, N. M., Singh, G., Koenig, A., Liou, G. Y., Storz, P., Zhang, J. S., Regul, L., Nagarajan, S., Kühnemuth, B., Johnsen, S. A., **Hebrok, M.**, Siveke, J., Billadeau, D. D., Ellenrieder, V., and E. Hessmann (2015): NFATC1 Links EGFR Signaling to Induction of Sox9 Transcription and Acinar-Ductal Transdifferentiation in the Pancreas. *Gastroenterology*. 2015 Jan 23. pii: S0016-5085(15)00118-3. doi: 10.1053/j.gastro.2015.01.033. [Epub ahead of print], PMID: 25623042
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60. Roy, N., Malik, M., Villanueva, K. E. Urano, A., Lu, X., von Figura, G., Seeley, S. E., Collisson, E. A., Dawson, D. W., and **M. Hebrok** (2015):Brg1 promotes both tumor suppressive and oncogenic activities at distinct stages of Pancreatic cancer formation. *Genes & Development.* Genes Dev. 2015 Mar 15;29(6):658-71. doi: 10.1101/gad.256628.114. PMID: 25792600*.* PMCID: PMC4378197
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62. Dhawan, S., Tschen, S., Zeng, C., Guo, T., **Hebrok**, **M.**, Matveyenko, A. and A. Bhushan (2015): DNA methylation directs functional maturation of pancreatic beta cells. *Journal of Clinical Investigation*. 015 Jul 1;125(7):2851-60. doi: 10.1172/JCI79956. Epub 2015 Jun 22. PMID: 26098213
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2. **Hebrok, M.,** Kim, S. K., and D. A. Melton (1999): Effects of hedgehog signaling on pancreas development. *Falk Symposium 113, ‘Cytokines and homeostasis in the gastrointestinal tract’.* 379-387
3. **Hebrok, M**., and M. German (2004): *Development of the endocrine pancreas*, DeGroot/Jameson: Endocrinology (*5th ed*)*, 913 - 923*.
4. **Hebrok, M**. (2004): Embryonic signaling pathways in pancreatic adenocarcinoma, *Falk Symposium 144, ‘Gastroenterology Yesterday-Today-Tomorrow’. 234 - 243.*
5. Pasca di Magliano, M. and **M. Hebrok** (2006): Hedgehog signaling in endodermally derived tumors. Hedgehog signaling and disease, Landes Bioscience*, 215-224.*
6. Pasca di Magliano, M. and **M. Hebrok** (2009): Hedgehog signaling in pancreatic cancer. Handbook of Pancreatic Cancer. Springer, *in press*.
7. **Hebrok, M**., and M. German (2010): *Development of the endocrine pancreas*, DeGroot/Jameson: Endocrinology (*6th ed), 592-602*.
8. **Hebrok, M**. (2011): Generating Beta-Cells from Stem Cells--The Story so Far, "*Diabetes*," (Editor Jeffrey Bluestone), Cold Spring Harbor Press. Cold Spring Harb Perspect Med. 2012 Jun;2(6):a007674. PMID: 22675664.
9. **Hebrok, M**., and M. German (2014): *Development of the endocrine pancreas*, DeGroot/Jameson: Endocrinology (7*th ed), in press.*
10. Kerper, N., Ashe, S., and **M. Hebrok** (2021): Beta Cell Development & Regeneration. Cold Spring Harbor Laboratory Press. a040741.

**RESEARCH AWARDS AND GRANTS**

Current

R01 DK105831, Hebrok (Principal Investigator, PI) 05/01/15-07/31/23 1.2 calendar

NIH/NIDDK

**Regulation of beta cell identity and dedifferentiation**

The overarching goal of this proposal is to elucidate novel functions of the transcription factor Sox9, currently believed to be only active in pancreas progenitors and adult exocrine duct and centroacinar cells.

R01 DK129935, Hebrok (Contact-PI) 07/01/21– 06/30/25 1.2 calendar

NIH/NIDDK

**Modulating intrinsic beta cell stress to block diabetes pathogenesis**

The major goals of this project are to determine how the unfolded protein response (UPR) and ER stress interact with a novel regulator of mature beta cell function, the transcription factor SOX9.

R01 DK090570 VUMC Stein (Contact PI), Hebrok (Co-PI) 07/01/21 – 06/30/25 0.2 calendar

NIH/NIDDK

**Defining the role of MafA in islet beta cells**

The Hebrok laboratory will generate hESC-derived beta cells to determine the function of the transcription factors MAFA and MAFB in these cells.  In particular, we will use established CRISPR/Cas9 technology to eliminate or otherwise mutate these transcription factors to reveal their requirement for beta cell specific functions, including glucose stimulated insulin secretion and maintenance of beta cell identity.

R01 DK129523 Herold Contact-PI, Hebrok (Co-PI) 07/01/21 – 06/30/25 1.0 calendar

NIH/NIDDK

**Adaptive epigenetic mechanisms of beta cells to immune responses**

The major goals of this project are to understand the role of Ten-Eleven Translocation methylcytosine dioxygenases (TET2) in modulating beta cell participation in immune destruction and resistance to cell killing, so that they may be protected, and that beta cell replacements that resist immune killing can be developed.

R01 DK101573 (Attie (PI), Hebrok Co-PI)                    04/01/19-03/31/23                0.12 calendar

NIH/Univ of Wisconsin-Madison

**The Diversity Outbred Project of Diabetes.**

The Hebrok laboratory will generate beta cells from human progenitors and perform genetic modification of target genes identified by the Attie group to assess their functions with regards to the formation and activity of human beta cells.

UH3 DK120004/UC Berkeley, Hebrok Co-PI 09/20/18-07/31/23 1.8 calendar

NIH

**Microphysiological systems to interrogate the Islet-Liver-Adipose Axis in normal physiology and Type-2 Diabetes Mellitus.**

The Hebrok laboratory will provide human stem and iPSC derived islets and contribute to overseeing and

executing all experiments involving islet-on-a-chip MPS.

U01 DK123559 (Anderson UCSF Contact PI, Hebrok Co-PI) 12/01/19-11/30/23 1.2 calendar

NIH/NIDDK/ Columbia University

**Modeling autoimmune pathogenesis and beta cell destruction by T1D immune systems**

The major goals of this project are to: 1) Determine the impact of T1D-prone genotypes on selection of autoreactive T cells in the human thymus; 2) Determine the impact of T1D-prone genotypes of TECs on thymic selection of islet-reactive T cells in humanized mice; 3) Assess autoimmune interactions between hPSC-derived beta cells and autoreactive T cells in humanized mice.

JDRF # 5-COE-2019-860-S-B, Hebrok (PI) 09/01/19-08/31/24 1.68 calendar

Juvenile Diabetes Research Foundation

**Northern California JDRF Center of Excellence**

The proposed JDRF Northern California Center of Excellence will promote collaborative efforts between diabetes researchers at the University of California, San Francisco (UCSF) and Stanford University School of Medicine. Our work will take advantage of the diverse and complementary expertise of the investigators at both universities to address important and unresolved questions in type 1 diabetes (T1D) biology with the intent of translating the findings into novel therapies

Eli Lilly and Company, Hebrok (PI) 12/01/18 – 11/30/21 (NCE) 1.8 calendar

Eli Lilly and Company

**Translating our hESC differentiation protocol to iPSCs**

The goal is to screen for genes that regulate/prevent the loss of identity in human Insulin-producing cells.

Beatson Foundation Grant # 2020-015, Hebrok (PI) 07/01/20 – 06/30/22 0.6 calendar

Beatson Foundation

**The role of BOLA3 in beta cell function**

The aims for this project include eliminating *BOLA3* expression in human stem cell-derived beta cells and evaluating the effects of overexpressing *BOLA3* in human stem cell-derived beta cells.

Pending

R01 DK132547-01 (PIs, Lim, Hebrok)

NIH/NIDDK

**Engineering synthetic immune cells with modular sentinel and therapeutic functions for T1D**

The goal of this project is to develop, and test engineered immune cells that can be used to detect early onset type 1 diabetes and locally treat it, by suppressing destruction of islet cells. The approaches developed here should have significant impact on detecting, studying and treating a broad range of autoimmune disorders, including and beyond type I diabetes.

Status of Support: the application has scored high (impact score: 22) during grant review and is slated for funding initiating in spring of 2022.

Past

P30 DK63720 German (PD/PI) 04/01/10-03/31/21(NCE) 0.12 calendar

NIH NIDDK (Salary Support Only)

**UCSF Diabetes Endocrinology Research Center**

This center grant supports the following activities: Biomedical Research Cores, Pilot and Feasibility Program, and Enrichment Program. The UCSF Diabetes Center is an organized research unit, has functioned for more than half a century as a basic and clinical research enterprise at the forefront of diabetes research.

Role: Program Director of Islet Biology

DP3DK111914 Marson (PI) 09/30/16-06/30/21 0.6 calendar

NIH/NIDDK

**Functional Interrogation of Non-Coding Type 1 Diabetes Risk Variants in Human Immune Cells and Beta Cells**

The project integrates *in vivo* human immune cell epigenomic mapping in genotyped patient samples with functional studies of human immune cells and beta cells engineered to carry specific T1D risk variants to characterize the cell types, epigenetic mechanisms and biological pathways disrupted by non-coding T1D risk variants. Role: Co-Investigator

1743407 Hebrok (PI)                                                             09/01/17-08/31/21 (NCE)      0.6 calendar

NSF

**Collaborative Research: Bioprocess development for the generation of functional pancreatic islet cells from human pluripotent stem cells**

The objective of this application is to engineer in a systematic and rational fashion a scalable bioprocess for the efficient and reproducible manufacturing from hPSCs of functional insulin-producing cells.

U01DK107383 Anderson, Hebrok, Bluestone (MPI) 07/01/16-12/31/20 (NCE) 0.6 calendar

NIH/NIDDK

**Using human stem cell-derived thymic epithelium to remodel T1D immune tolerance**

Our proposed studies will provide unique tools to study autoimmune disorders such as T1D as well as improve our general knowledge of human thymic function. Furthermore, our work will lay the foundation for the potential that thymic immune tolerance can be manipulated to treat or prevent autoimmunity.

CIRM # DISC2-10751 Roy (PI) 04/01/10 – 03/31/20 0.6 calendar

CIRM (Salary Support Only)

**Silicon Nanopore Membrane encapsulated enriched-Beta Clusters for Type 1 Diabetes treatment**

This goal of this project is to test the ability of hESC derived islet and beta cells to function properly in a silicon nanopore membrane device.

U01EB025136 Roy (PI) 09/26/17 – 06/30/20 0.6 calendar

NIH/NIBIB (Salary Support)

**Implantable Bio-Artificial Panreas (iBAP)**

The major goal of this project is to develop the silicon nanopore membrane (SNM) based intravascular and implantable Bioartificial Pancreas (iBAP) encapsulating enriched Beta-Cluster (eBC) for treatment of Type 1 Diabetes (T1D). Role: Co-Investigator.

R01 CA172045 Hebrok (PI) 04/03/14-08/31/19 (NCE) 0.6 calendar

NIH/NCI

**Epigenetic Regulation of Pancreatic Cancer**

The aims of this project are (1) to determine the role of Brg1 in duct-derived IPMN/PDA, (2) to define the role of Brg1 in acinar-derived PanIN and PanIN/PDA, and (3) to determine the function of Sox9 in IPMN-PDA and PanIN/PDA.

2-SRA-2016-268-S-B Hebrok (PI) 09/01/16-08/31/19(NCE)0.12 calendar

JDRF

**Immunoengineering of stem-cell-derived insulin-producing cells**

The major goals of this project are: (1) To produce SCIPC with minimal genetic modifications to allow long-term survival in allogeneic hosts without immunosuppression and; (2) To obtain the preclinical safety and efficacy data to support future generation of GMP-compliant minimally immunogenic hESCs to enable phase I clinical trial in patients.

RO1 MPG, DK108666 (Contact PI Hebrok, Co-PI Bhushan) 12/01/2015-11/30/19

NIH/NIDDK

**Mechanisms of beta cell maturation**

U01 DK108332 (PI Van Den Eeden, Co-investigator Hebrok) 12/1/15 – 11/30/20

NIH/NIDDK

**Chronic Pancreatitis, Diabetes and Pancreatic Cancer: A Prospective Approach**

JDRF # 3-SRA-2011-254-Q-R Desai (PI) 08/01/14-07/31/17

Juvenile Diabetes Research Fdn. Int’l

**Nanoporous Injectable Thin Film Devices for Islet Encapsulation**

Janssen Biotech, Inc. (MPI Hebrok and Bhushan) 12/01/15-12/31/17

**Targeting Metabolic Reprograming of Beta Cells in T1D**

RB5-07262 (PI Anderson, Co-PI Hebrok) 07/01/14-06/30/17

CIRM

**Generation of a functional thymus to induce immune tolerance to stem cells derivatives**

1-INO-2016-220-A-N Hebrok (PI) 06/01/16 - 05/31/17

JDRF

**Using stem cells to decipher alpha-beta cell interactions.**

The aims of this project are: 1) Assess effects of heterotypic α-β cell-cell interaction on β cell glucose-stimulated insulin secretion (GSIS) in vitro; 2) Characterize the function and composition of α-β heterogeneous grafts after in vivo transplantation; 3) Develop glucagon-like peptide 1(GLP-1)-secreting α cells using inducible, Cas9-mediated genome engineering.

1-PNF-2016-320-S-B/subcontract Hebrok (subcontract PI) 09/01/16-02/28/17

JDRF/University of Arizona

**Pairing of human stem cell derived beta-like cells with a high capacity, oxygen-enabled immunoisolation device.**

JDRF 17-2013-380 (PI Hebrok) 01/01/14-12/31/16

LM & HB Helmsley

**Preserving ß-cell fate and function in T1D**

JDRF # 3-SRA-2011-254-Q-R (PI Desai, Co-PI Hebrok) 08/01/14-07/31/16

Juvenile Diabetes Research Fdn. Int’l

**Nanoporous Injectable Thin Film Devices for Islet Encapsulation**

2012PG-T1D017 (PI Hebrok) 01/01/13-06/30/16 (NCE)

LM & HB Helmsley

**Identification of Mesenchymal signals to regulate ß-cell maturation and expansion**

2012PG-T1D016 (PI Hebrok) 01/01/13-06/30/16 (NCE)

LM & HB Helmsley

**Investigating the role of c-myc in pancreatic beta cell replication**

JDRF # 17-2014-7 (PI Hebrok) 01/01/14-06/30/16 (NCE)

University of Michigan

**Brehm Coalition: De-differentiation during progression of beta cell loss in type 1 diabetes**

U01 DK089541 (PI German, Project PI Hebrok) 09/15/10-06/30/15

NIH NIDDK Beta Cell Biology Consortium

**Expanding Beta-Cell Mass**

JDRF 17-2013-513 (PI Anderson) 08/01/13-07/31/15

Juvenile Diabetes Research Fdn. Int'l

**Beta-cell stress as a trigger for type 1 diabetes**

R01 DK060533 (PI Hebrok) 03/01/08-02/28/14

NIH/NIDDK

**Effects of Hedgehog Signaling on Pancreas Organogenesis**

R01 CA112537 (PI Hebrok) 12/01/09-11/30/14

NIH/NCI

**Embryonic Signaling Pathways in Pancreatic Cancer**

CIRM RM1-01702 (PI Anderson, Co-PI Hebrok) 10/01/10-09/30/13

Stem Cell Transplantation Immunology Awards

**Stem cell differentiation to thymic epithelium for inducing tolerance to stem cells**

U01 DK072473 (UCSF PI Hebrok) 08/01/11-07/31/14

Vanderbit University/NIH (Prime PI: Mark Magnuson)

**Proteomic Analysis of mesenchymal factors**

No Number (PI Hebrok) 12/01/11-12/31/14

SANOFI-AVENTIS

**UCSF/Sanofi-Aventis Joint Alliance in Diabetes and Beta Cell Research**

No Number (PI Hebrok) 09/01/13-08/31/14

RAP - Resource Allocation Program

**Generation of beta cells from stratified cohorts of type 2 diabetic patients**

CIRM RM1-01703 (PI Bluestone, Co-PI Hebrok) 10/01/10-09/30/13

Stem Cell Transplantation Immunology Awards

**Stem cell tolerance through the use of engineered antigen-specific regulatory T cells**

07-09-MN-17 (PI Hebrok) 01/01/10-12/31/13

American Diabetes Association, Mentor Based Award

**Regulation of beta cell development via mesenchymal factors**

JDRF # 17-2011-621 (PI Hebrok) 09/01/11-08/31/13

**Mesenchymal factors regulate ß-cell formation**

AACR Pancreatic Cancer Network (PI Hebrok) 07/01/11-06/30/13

**Role of miRNAS in pancreatic adenocarcinoma**

CIRM RFA-09-03 (PI Bluestone, Co-PI Hebrok) 07/01/10-06/30/13

Stem Cell Transplantation Immunology Awards

**Stem cell tolerance through the use of engineered antigen-specific regulatory T cells**

CIRM RM1-01702 (PI Anderson, Co-PI Hebrok) 07/01/10-06/30/13

Stem Cell Transplantation Immunology Awards

**Stem cell differentiation to thymic epithelium for inducing tolerance to stem cells**

NIDDK Transformative Collaboration Project Award /BCBC (PI Hebrok) 08/01/11-07/31/13

**Proteomic Analysis of mesenchymal factors**

CIRM DiseaseTeam (PI Robbins, UCSF PI Stock, Project PI Hebrok) 02/01/10-01/31/13

**DR1-01423 Cell Therapy for Diabetes**

Juvenile Diabetes Research Foundation (Network Dir. Hebrok) 09/01/08-08/31/11

Embryonic Stem Cell Network 35-2008-628

**Moving hESC-derived islets into preclinical models**

Juvenile Diabetes Research Foundation (PI Hebrok) 08/01/06-07/31/11

JDRF Scholar Award 16-2006-453

**Molecular Principles of ß-cell Differentiaion and Regeneration**

The IACOCCA Foundation 07/01/08-06/30/10

Postdoctoral Fellowship Grant

**In vitro differentiation of insulin-secreting beta cells from Induced human pluripotent cells**

Juvenile Diabetes Research Center (Prog. Dir. P. Stock) 02/01/07-01/31/10

JDRF 4-2004-372 Pilot Project (PI Hebrok)

**Pilot Project: Studies on B-cell Regeneration**

Pancreatic Action Network 07/01/08-06/30/10

**NFkB signaling in PanIN Information**

UC Discovery Grant (PI Hebrok) 05/01/07-04/30/09

**Mesenchymal hedgehog signaling in PDAC stromal response and tumorigenesis**

Juvenile Diabetes Research Foundation (Prog. Dir. Hebrok) 03/01/08-02/28/09

Academic R&D Grant JDRF 17-2008-361

**Regeneration of Functional Beta Cells**

American Diabetes Association (PI Hebrok) 01/01/06-12/31/08

Research Award ADA-RA-56

**The role of Wnt/Hedgehog signaling in Beta-cell development and function**

Juvenile Diabetes Research Foundation (PI Hebrok) 05/01/05-04/30/08

JDRF 1-2005-831

**Identification of small chemical compounds that promote expansion of functional** **human beta cells**

UCSF Innovations in Basic Science (PI Hebrok) 12/01/05-11/30/07

**Regulation of the earliest steps of mammalian development by Hedgehog signaling**

Hillblom Foundation (PI Kim; Co-PI Hebrok) 09/01/02 – 08/31/06

Hillblom Foundation

**Identification of islet precursors from adult human stem cell compartments**

###### **PROFESSIONAL ACTIVITIES**

**PROFESSIONAL ORGANIZATIONS:**

###### **Memberships**

1993-present German Society of Developmental Biology

2001-present American Diabetes Association

2001-present American Society for Developmental Biology

2001-present Endocrine Society

2008-present American Association for Cancer Research (AACR)

2008-present American Gastroenterology Association (AGA)

**Service to professional organizations**

Co-chair, Session: “ß-cell life and death”.

American Diabetes Association (ADA), 64th Scientific Sessions, Orlando, FL (June ’04)

Co-chair, Session: “Diabetes and Pancreatic Cancer”

Lustgarten Foundation, Pancreatic Cancer ’04: Advances and Challenges. San Francisco, (June ’04)

Co-chair, Session: “Novel therapeutic approaches”.

University of Pennsylvania, Workshop, Pancreatic Cancer in Mice and Men, Philadelphia, (Dec. ’04)

External Reviewer for Graduate Student Defense, Aarhus, Denmark (2005)

Member, Research Portfolio Advisory Committee (RPAC), Juvenile Diabetes Research Foundation (2006 – present)

Chair, Symposium, ‘First Steps in Making Beta-Cells from Stem Cells

American Diabetes Association (ADA), 66th Scientific Sessions, Washington, DC (June ’06),

Co-chair, Session: “Hedgehog signalling in development and cancer

EMBO Workshop on Hedgehog-Gli Signaling in Cancer and Stem Cells, Rome, Italy, (October ’06)

Member, American Diabetes Association, 67th and 68th Scientific Sessions Meeting Planning Committee (2007 – 2008)

Member, Scientific Advisory Board, Speman Graduate School, Albert-Ludwigs University, Freiburg, Germany (2007 – present)

Chair, Research Portfolio Advisory Committee (RPAC), Juvenile Diabetes Research Foundation (2007 – 2009)

Chair, Symposium, ‘Development of the Pancreas and Islets’

American Diabetes Association (ADA), 67th Scientific Sessions, Chicago, IL (June ’07)

Member, American Diabetes Association, Scientific Sessions Islet Biology/Insulin Secretion Subcommittee (2009)

Member, Development of Strategic Plan for Diabetes Research under the auspices of the Diabetes Mellitus Interagency Coordinating Committee (DMICC) under the leadership of the NIDDK Division of Diabetes, Endocrinology, and Metabolic Diseases (DDEM) (2009)

Co-Chair, JDRF Workshop, ‘Understanding beta-cell functional maturation to generate alternative sources of human beta-cells’, New York, NY (March ’10)

Co-chair, Session: “Stem Cells”

EMBO workshop, Disease, Development and stems cells in the pancreas, Stockholm, Sweden (June ‘10)

Organizer, Retreat, NIH Beta Cell Biology Consortium (BCBC), Washington, DC (May ‘11)

Chair, Scientific Session, Old Molecules with New Functions in the Islet, Annual Meeting, American Diabetes Association, San Diego, CA (June ‘11)

Co-Organizer (together with Chris Rhodes (University of Chicago), Vickie Prince (University of Chicago), and Lori Sussel (Columbia University), Society of Developmental Biology Annual Meeting, Satellite Symposium: Translating Pancreatic Development to Treat Diabetes, Chicago, IL (July ‘11)

Co-Organizer (together with David Cano, Sevilla, Spain, and Didier Stainier, UCSF), Workshop: ‘Liver and Pancreas: From Development to Disease’, Baeza, Spain (November ‘11)

Member, External Review Committee for the Max-Delbrück Center (research Program Cardiovascular and Metabolic Diseases), Berlin, Germany (March ‘12)

Chair, Scientific Session, Stem Cells as Source of Islet cells, Keystone Symposium, Advances in Islet Biology, Monterey, CA (March ‘12)

Co-Organizer, NIH Workshop: ‘Advances in acute and chronic pancreatitis: from development to inflammation and repair’, Bethesda, MD (June ‘12)

Chair, Session: Stem Cell and Regenerative Medicine, 5th PUMCH Annual Conference in Building Bridges in Translational Research: Partnering with UCSF, Beijing, China (January, ’13)

Member, Executive Committee, Beta Cell Biology Consortium (BCBC) (2013 – present)

Member, Diabetes Research Connection (DRC) Scientific Review Committee, (2013 – present)

Member, Organizing Committee, 14th World Congress of the International Islet and Pancreas Transplantation Association (IPITA) (2013)

Member, ADA Scientific Sessions Islet Biology/Insulin Secretion Subcommittee (2013)

Member, Abstract Review Committee for the 2015 annual ADA meeting (2014)

Member, Organizing Committee, 2017 Islet Study Group and Beta Cell Workshop, Dresden, Germany

Member, Research Advisory Board, Juvenile Diabetes Research Foundation (JDRF), (2016 – present)

Chair, Aging and the Beta Cell Symposium, American Diabetes Association 77th Annual Meeting, (2017)

Organizer, Keystone Conference, Frontiers in Islet Biology and Diabetes (B3-2018) (2018)

Member, American Diabetes Association, Scientific Sessions Islet Biology/Insulin Secretion Subcommittee (2017)

Member, American Diabetes Association Pathway to Stop Diabetes Mentor Advisory Group (MAG) (2018-current)

Member, American Diabetes Association Scientific Sessions Transplantation Subcommittee (2019)

Member, Faculty Search Committee, Organoid Center, Technical University Munich, Germany (2020)

Chair, Session ‘Emerging Approaches to Beta Cell Replacement for Type 1 Diabetes’, Annual meeting of the American Diabetes Association (ADA), (2022)

**PATENTS & PATENT APPLICATIONS**

1. United States Patent No. 9,850,465 (issued 12.26.2017): In Vitro directed differentiation of human embryonic stem cells into functional Thymic epithelial Progenitors. Case 2013-057-3 App 14/770,625 (filed 2/26/14) CA: 2,902,857 (filed 2/26/14); EP: 14756984.2 (filed 2/26/14)
2. United States Patent No. 10975355 (issued 04.13.2021): Controlled induction of human pancreatic progenitors produces functional beta-like cells *in vitro.* Case 2015-203-4 PCT: PCT/US17/26651 (filed 4/07/2017); Application 15568736
3. Case 2015-203-4: Application number 16/092,166 (filed 4/7/2017): Controlled induction of human pancreatic progenitors produces functional beta-like cells *in vitro*. Appl Filed/Pros by UC
4. Case 2016-019-4: Application number 15/747,729 (filed 7/26/16): Generation of human beta cell equivalents from pluripotent stem cells*in vitro.* Appl Filed/Pros by UC
5. Case 2018-064-3: Application number 16/772,078 (filed 12/12/2018): The use of parathyroid gland cells and their secreted factors to promote islet beta cell engraftments. Appl Filed/Pros by UC
6. Case 2020-106-2: PCT/US21/15676 (filed 1/29/2020): *In vivo* plasmonics sensing nanoplatforms for human stem cell applications and methods thereof.
7. Case 2020-210-3: PCT/US21/29457 (4/27/2021): Improved Methods for generating Thymic cells *in vitro*.

**SERVICE TO PROFESSIONAL PUBLICATIONS:**

**Editorial Boards**

2006-2010 Experimental Biology and Medicine

2007-2014 Diabetes

2010-2017 Gastroenterology

**Review Manuscripts**:

Cell, Nature, Science, Nature Genetics, Nature Medicine, Nature Biotechnology, Nature Communications, Developmental Cell, Cell Stem Cells, Genes & Development, Development, Current Biology, Journal of Clinical Investigation, Journal of Cell Biology, Diabetes, Developmental Biology, Molecular and Cellular Biology, Mechanisms of Development, Developmental Dynamics

**OTHER ACTIVITIES**

2000 – 2010 Scientific Advisory Board, Viacyte Inc. (formerly CyThera, Inc.; Novocell Inc.), San Diego, CA

Provide expertise to generate functional ß-cells from human ES cells.

2004 – 2005 Consultant for Genentech Inc., South San Francisco, CA

Provide expertise with regard to the role and potential of Hedgehog signaling inhibitors in treatment of various tumors.

2007 – 2009 Consultant for Amgen Inc., South San Francisco, CA

Provide expertise with regard to the role and potential of Hedgehog signaling inhibitors in tumor formation and treatment.

2009 – 2011 Consultant for iPierian Inc. (formerly iZumi Inc.), South San Francisco, CA

Provide expertise for directed differentiation of induced pluripotent stem cells (iPS)

2012 – 2014 Consultant for Charisela, Palo Alto, CA

Provide expertise to optimize tests measuring secretion of endocrine hormones

2013 – 2015 Consultant for Merck

Provide expertise on pancreatic diseases

2016 – 2019 Scientific Advisory Board and Consultant, Semma Therapeutics Inc., Boston, MA;

Provide expertise to generate functional ß-cells from human ES cells for cell therapy purposes.

2016 – present Scientific Advisory Board, Encellin Inc., San Francisco, CA;

Provide expertise to optimize Encapsulation devices for treatment of diabetic patients.

2020 – present Scientific Advisory Board, Thymmune Inc., Boston, MA;

Provide expertise to optimize generation of thymic epithelial cells from stem cells.

2020 – present Co-Founder, Scientific Advisory Board, Minutia Inc., San Francisco, CA;

Provide expertise to develop strategies for monitoring biological properties of stem cell derived organs upon transplantation.

2020 – present Co-Founder, Scientific Advisory Board, EndoCrine Biotherapeutics Inc., San Francisco, CA;

Provide expertise to develop high-throughput drug screening for stem cell-derived pancreatic endocrine cells.

**INVITED PRESENTATIONS (includes confirmed presentations)**

INTERNATIONAL

**International Meetings and Symposia**

1999

Falk Symposium: 'Cytokines and the Cell Homeostasis in the Gastrointestinal Tract',

Regensburg, Germany (September)

2002

European Molecular Biology Organization (EMBO) Workshop, Endoderm differentiation,

Arolla, Switzerland (August)

Western Region Islet Study Group Meeting, Victoria, Canada (November)

2004

JDRF/Eli Lily Symposium, Hamburg, Germany (May)

Falk Symposium 144, Gatroenterology, Yesterday-Today-Tomorrow, Freiburg, Germany (October)

2005

Keystone Symposia, Cancer and Development, Banff, Canada (February)

German Society for Developmental Biology meeting, Münster, Germany (April)

European Society of Pediatric Gastroenterology, Hepatology and Nutrition, Porto, Portugal

(June)

10th EASD/JDRF Oxford Workshop, Oxford, UK (August)

2006

International Symposium on Epithelial Organization and Organ Development, Berlin, Germany

(May)

Symposium ‘Molecules, Mechanisms, and Models in Embryogenesis and Organogenesis’, Freiburg, Germany (October)

European Molecular Biology Organization (EMBO) Workshop on pancreas development, Barcelona, Spain (October)

European Molecular Biology Organization (EMBO) Workshop on HH-GLI signaling in development, cancer and stem cells, Rome, Italy (October)

2007

EMBO/ IRCC AlpineSummer Conference, Invasive Growth: A genetic programme for stem cells, cancer and cancer stem cells, Torino, Italy (June)

Karolinska Institute, Joint UCSF/Karolinska stem cell meeting, Stockholm, Sweden (September)

European Life Scientist Organization (ELSO) meeting, Developmental Biology, Regeneration and Disease, Dresden, Germany (September)

2008

Symposium on Developmental Biology, Regeneration and Disease National Centre for Biological Sciences (NCBS), Bangalore, India, (February)

Workshop, Cancer and Stem Cells, St Jean Cap Ferrat, Nice, France, (October)

International Society for Endocrinology Meeting, Rio de Janeiro, Brazil (November)

2009

Meeting on Mechanisms of Organ Regeneration in Model Systems, Baeza, Spain (October)

2010

EMBO workshop, Disease, Development and stems cells in the pancreas, Stockholm, Sweden (June)

Paul-Martini Workshop, ‘Therapeutical Strategies in Regenerative Medicine’, Berlin, Germany, (September)

2011

Hagedorn Workshop on “Inflammation and type 2 diabetes”, Hagedorn Research Institute, Novo

Nordisk, Copenhagen, Denmark (March)

47th Annual Meeting of the European Association for the Study of Diabetes (EASD), Session: “Stem cells and related approaches”, Lisbon, Portugal (September)

Workshop: ‘Liver and Pancreas: From Development to Disease’, Universidad Internacional de Andalucía, Baeza, Spain (November)

World Diabetes Congress (organized by the International Diabetes Federation), Session: “Clinical and Basic Science”, Dubai, United Arab Emirates (December)

2012

Shanghai International Conference on Pancreatic Cancer, Chinese Society of Clinical Oncology (CSCO, Chinese version of the ASCO), Shanghai, China (August)

The 8th International Symposium on Cancer Research and Therapy, Tokyo, Japan (November)

2013

European Pancreatic Club, Zürich, Switzerland (June)

2014

London Pancreas Workshop, Barts Cancer Center, Queen Mary University, London, UK (May)

Copenhagen Bioscience Conference, Copenhagen, Denmark (May)

5th International Congress on Stem Cell and Tissue Formation, Dresden, Germany, (July)

Diabetes Dialogue meeting, Madrid, Spain (December)

2015

4th Diabetes Centers & Units meeting, Jeddah, Saudi Arabia (April)

The Islet Study Group and Beta Cell Workshop, Jerusalem, Israel (May)

2015 T1D Summit: A Platform to Exchange Ideas on Pathogenesis and Prevention, Reykjavik, Iceland (October)

2016

2nd International Kloster Seeon Meeting on Mouse Models of Human Cancer, Kloster Seeon, Germany (April)

17th Servier‐IGIS Symposium, Chair of Session, St. Jean Cap-Ferrat, France (April)

2016 Beatson Institute for Cancer Conference, Glasgow, Scotland (July)

Danish Diabetes Academy, Summer School on Diabetes and Metabolism, Ebberup, Denmark (September)

4th Helmholtz/Nature Medicine Diabetes Conference, Munich, Germany (September)

Korea Advanced Institute of Science and Technology (KAIST) Symposium on Obesity, Diabetes and Energy Metabolism, Daejeon, South Korea (October) (October)

Korean Diabetes Association (KDA), International Conference on Diabetes and Metabolism, Seoul, South Korea (October)

2017

Diabetes UK, Annual Meeting, Manchester, UK (March)

EASD Islet Study Group and Beta Cell Workshop in Dresden, Germany (May)

5th Annual Helmholtz-Nature Medicine Diabetes Conference, Munich, Germany (September)

International Diabetes Foundation, Annual Meeting, Abu Dhabi (December)

2018

Annual meeting “German Pancreas Club”, Ulm, Germany, (January)

2019

Plenary lecture, AIBIS, Korean Society for Endocrinology, Seoul, Korea (August ’19)

B Cube Conference, Engineering Life – from Origins to Organs, Dresden, Germany (September ’19)

2020

Webinar, The Future of Type 1 Diabetes (July ’20)

2021

New Frontiers, Visionaries Speak Roundtable Series (virtual, April ’21)

48th Annual meeting, International Society of Pediatric and Adolescent Diabetes (ISPAD) (virtual, October ’21)

International Pancreas and Islet Transplantation Meeting (IPITA) (virtual, October ’21)

2022 (includes accepted invitations)

International Symposium, Pancreatic Cancer Research Centers Germany, Schloss Hohenkammer, Germany (June ’22)

International Diabetes Federation (IDF), Lisbon, Portugal, (December, ’22)

**International Lectures**

2001

Invited Lecture, Hagedorn Research Center, Copenhagen, Denmark (February)

Invited Lecture, Aarhus University, Aarhus University, Denmark (March)

Invited Lecture, Center for Molecular Neurobiology, Hamburg, Germany (March)

2002

Invited Lecture, Medical School Hannover, Germany (May)

2003

Invited Lecture, Max-Planck Institute for Cell Biology, Dresden, Germany (June)

Invited Lecture, Institute of Molecular Pathology, Austria (June)

2004

Invited Lecture, Max-Planck Institute for Immunobiology, Freiburg, Germany (April)

Guest Professor Lectureship, University of Ulm, Germany, (October)

2007

Invited Lecture, Garvan Institute, Sydney, Australia (February)

Invited Lecture, ISREC, Lausanne, Switzerland (August)

2009

Invited Lecture, Technical University Munich, Munich, Germany (February)

Invited Lecture, Helmholtz Zentrum Munich, Munich, Germany (February)

Invited Lecture, University of Düsseldorf, Düsseldorf, Germany (December)

2010

Invited Lecture, Max Delbrück Center for Molecular Medicine (MDC), Berlin, Germany

2012

Invited Lecture, RIKEN Research Center for Allergy and Immunology (RCAI), Yokohama, Japan

Invited Lecture, Sanofi, Diabetes Division, Frankfurt, Germany

2013

Invited Lecture, Peking University Medical Center, Beijing, China

2014

Invited Lecture, Centro Nacional de Investigaciones Oncológicas (CNIO, Spanish National Cancer Research Centre), Madrid, Spain (June)

Invited Lecture, Institute of Biomedicine Seville (IBiS), Seville, Spain (June)

Invited Lecture, Child and Family Research Institute, Vancouver, CA (September)

2015

Invited Lectures (2), Endocrinology and Gastroenterology, Ulm, Germany (February)

Invited Lecture, Max Planck Institute for Molecular Genetics, Berlin, Germany (July)

Invited Lecture, Max Delbrück Center, Berlin, Germany (July)

2016

Invited Lecture, Crick Institute, London, UK (February)

2017

Swiss Federal Institute of Technology in Lausanne, Switzerland, (October)

2018

Invited Lecture, DZD-Paul Langerhans Institute of the Helmholtz Zentrum München at the University Hospital and Faculty of Medicine Carl Gustav Carus of TU Dresden (June)

2019

Invited Lecture, Graduate Program, King’s College, London, UK (February ’19)

Invited Lecture, Center for Regenerative Therapies, Technical University, Dresden, Germany (June ’19)

2021

Invited Lecture, Montreal Diabetes Research Centre (MDRC), Montreal, CA (virtual, January ’21)

Invited Lecture, Technical University Munich, Germany (virtual, March ’21)

Invited Lecture, ULB Center for Diabetes Research, Universite Libre de Bruxelles, Belgium (virtual, September ’21)

Invited Lecture, Retreat, Paul Langerhans Institute, Meerane, Germany (October ’21)

Invited Lecture, Deutsches Zentrum für Diabetes - Paul Langerhans Institute Dresden, Germany (virtual, November ’21)

2022 (includes accepted invitations)

Invited Lecture, Helmholtz Diabetes Center, Munich, Germany (May ’22)

NATIONAL

**National Meetings and Symposia**

1999

Annual Meeting of the American Diabetes Association, San Diego, CA (June)

Cell Therapy for Curing Diabetes: ß-Cell Development, Growth, and Transplantation, Tiburon,

CA (November)

2001

National Institutes of Health (NIH), Workshop, Pancreatic Development, Proliferation, and Stem

Cells, Bethesda, MD (October)

Western Region Islet Study Group Meeting, Marconi Conf. Center, Marshall, CA (November)

2002

American Gastroenterology Association Annual Meeting, San Francisco, CA (May)

16th Annual Northern California Diabetes Symposium, San Francisco, CA (April)

Beta Cell Biology Consortium Investigator Retreat, Leesburg, VA (November)

2003

Keystone Symposia, Toward understanding of islet biology, (January)

Gordon Conference, Developmental Biology, NH (June)

Pancreatic Development and Disease Modeling Conference, Chicago (September)

Western Region Islet Study Group Meeting, Seattle, WA (October)

Beta Cell Biology Consortium Investigator Retreat, Atlanta, GA (November)

2004

Keystone Symposia, Mouse Models of Human Cancer, Keystone, CO (February)

Liver Center Retreat and Liver Genetics and Development Symposium, Sonoma, CA (April)

American Diabetes Association (ADA), 64th Scientific Sessions, Orlando, FL (June)

Gordon Conference on Cancer: Models and Mechanisms, RI (August)

2005

JDRF Fellows Research Forum 2005, Chantilly, VA (March)

Lustgarten Foundation, Pancreas Cancer 2005: State of the Art, Sloan Kettering, NY (June)

2006

American Gastroenterology Association, Symposium: Stem Cells in Gastrointestinal

Development, Regeneration and Neoplasia, Tyson’s Corner, VA (September)

American Pancreatic Association (APA) and International Association of Pancreatology (IAP),

Chicago, IL (November)

Rachmiel Levine Symposium ‘Advances in Diabetes Research: From Cell Biology to Cell Therapy’, Los Angeles, CA (November)

2007

JDRF Fellows Research Forum, Chantilly, VA (March)

American Association for Cancer Research (AACR), Annual meeting, Los Angeles, CA (April)

Seventh Annual Liver, Pancreas and Biliary Conference, Dartmouth, NH (October)

2008

Keystone Symposia, Islet and Beta Cell Development and Transplantation, Snowbird, UT (April)

Endocrine Society, Annual Meeting, San Francisco, CA (June)

Conference, “Hedgehog Signaling in Development and Disease”, Stanford, CA (June)

JDRF Scholar Meeting, New York, NY (July)

2009

Annual Meeting, American Association for Cancer Research, Denver, CO (April)

American Diabetes Association (ADA), 69th Scientific Sessions, New Orleans, LA (June)

2010

Huntsman Cancer Institute/UCSF Pancreas Cancer Research Retreat, Park City, UT, (February)

1st Annual GNF-JDRF Diabetes Research Symposium, San Diego, CA, (March)

Type 1 Diabetes Symposium, Brehm Diabetes Center, University of Michigan, Ann Arbor, MI, (April)

JDRF Scholar’s Retreat, New York, NY, (April)

Cold Spring Harbor Symposium in Vertebrate Organogenesis, Cold Spring Harbor, NY (May)

New York Stem Cell Meeting, New York, NY, (October)

Barbara Davis Center Symposium, Carousel of Hope Symposium, Los Angeles, CA (October)

2011

11th Rachmiel Levine Diabetes and Obesity Symposium, ‘State of the Art’ Overview, Pasadena, CA (March)

American Gastroenterology Association (AGA), Digestive Disease Week 2011, Research Symposium, Pancreatic stem cells, Chicago, IL (May)

Society of Developmental Biology Annual Meeting, Satellite Symposium: Translating Pancreatic Development to Treat Diabetes, Chicago, IL (July ‘11)

2012

Keystone Symposium, “Genetic and Molecular Basis of Obesity and Body Weight Regulation/Emerging Molecular Mechanisms for the Pathogenesis of Diabetes”, Santa Fe, NM (January)

Keystone Symposium, “Advances in Islet Biology”, Monterey, CA (March)

American Diabetes Association (ADA), 72th Scientific Sessions, Philadelphia, PA (June)

NIH workshop, “Advances in acute and chronic pancreatitis: from development to inflammation and repair", Bethesda, MD (June)

AACR Conference, Pancreatic Cancer: Progress and Challenges, Lake Tahoe, CA (June)

2013

5th Annual nPOD Meeting, Atlantic Beach, FL (February)

Digestive Disease Week Annual Meeting, Orlando, FL (May)

Endocrine Society Annual Meeting, San Francisco, CA (June)

Gordon Research Conference, Pancreatic Diseases, Mt. Holyoke, MA (July)

14th International Congress of the International Pancreas and Islet Transplantation Association (IPITA), Monterey, CA (September)

2014

Annual meeting for the American Association of Anatomists (AAA), San Diego, CA (April)

Beta Cell Biology Consortium Annual Meeting, Bethesda, MD (May)

PancWest Symposium, Portland, OR (September)

Brehm Coalition Meeting, Ann Arbor, MI (October)

Leona M. and Harry B. Helmsley Charitable Trust meeting (Beta Cell Regeneration Group), NYC, NY (October)

UCSF, The Eli and Edythe Broad International Symposium on The Stem Cell Niche (October)

2015

USC Keck Diabetes Symposium, Los Angeles, CA (February)

Digestive Disease Week Annual Meeting, Washington, DC (May)

Tri-Institutional Stem Cell Retreat, Santa Barbara, CA (May)

Iconoclastic Beta Cell Meeting, Rockport, ME (June)

Workshop on Pancreatic Cancer, Summer course, Cold Spring Harbor, NY (June)

JDRF Encapsulation Consortium Fall Meeting, New York, NY (September)

15th Annual Diabetes Technology Meeting (DTM), Washington, DC (October)

46th Annual Meeting, American Pancreatic Association, San Diego, CA (November)

2016

Diabetes Diagnosis and Management (DDM) Symposium 2016, Boston, MA (March)

Keystone Symposium on Islet Biology, Keystone, CO (March)

Carousel of Hope Scientific Symposium, Los Angeles, CA (October)

2017

Immunology of Diabetes Society, San Francisco, CA (January)

JDRF Diabetes Summit, South San Francisco, CA (January)

Gordon Research Conference on Salivary Glands and Exocrine Biology, Galveston, TX (February)

nPOD (Network for Pancreatic Organ donors with Diabetes) Annual meeting, Ft. Lauderdale, FL (February)

Gordon Research Conference, Exocrine and Endocrine Pancreas: Molecules to Human, Waterville Valley, NH (June)

2018

Keystone Symposium, Frontiers in Islet Biology and Diabetes, Keystone, CO (February)

Keystone Symposium, Endoderm Development and Disease: Cross-Organ Comparison and Interplay, Taos, NM (February)

Endocrine Society, 100th Annual Meeting, Chicago, IL (March)

Alpha Cell meeting, Helmsley Trust, Vanderbilt University, Nashville, TN (March)

International Pancreas and Islet Transplant Association (IPITA), Opinion Leaders Meeting on Stem Cell Derived Beta Cells, Boston, MA (May)

18th Annual Diabetes Technology Meeting (DTM), Bethesda MD (November)

2019

nPOD (Network for Pancreatic Organ donors with Diabetes) Annual meeting, Ft. Lauderdale, FL (February)

Rachmiel Levine Symposium, Pasadena, CA (April ’19)

New York Stem Cell Foundation (NYSCF) Annual meeting, New York, NY (October ’19)

2020

Rachmiel Levine Symposium, LA, CA (February ’20)

80th Annual Symposium, American Diabetes Association (June ’20)

9th Panelist discussion on topics in Diabetes, Vanderbilt University (virtual, November ’20)

5th Annual Frontiers in Diabetes Research Symposium, Stanford University (virtual, November ’20)

2021

International Pancreas and Islet Transplantation Association (IPITA), (virtual, October ’21)

International Society for Pediatric and Adolescent Diabetes (ISPAD), (virtual, October ’21)

2022 (includes accepted invitations)

Endocrine Society, (June ’22)

**National Lectures**

2003

Invited Lecture, Barbara Davis Center, University of Colorado, Denver, CO (February)

Invited Lecture, Division of Endocrinology Research Conference, University of Pittsburgh, PA (October)

2004

Invited Lecture, University of Pennsylvania, Diabetes Center, PA (February)

Invited Lecture, UC Berkeley, Dept. of Nutritional Science and Toxicology, CA, (March)

Invited Lecture, The Scripps Research Institute, La Jolla, CA (July)

Invited Lecture, Stanford University, Digestive Disease Center Seminar, (September)

Invited Lecture, Cincinnati Children’s Hospital, (September)

2005

Invited Lecture, University of California, Irvine, CA (February)

Invited Lecture, Pacific Northwest Research Institute, Seattle, WA (March)

Invited Lecture, Vanderbilt University, TN (September)

Invited Lecture, Stanford University (October)

2006

Invited Lecture, Memorial Sloan-Kettering Cancer Center, NY (February)

Invited Lecture, Duke University, Raleigh, NC (March)

Invited Lecture, Harvard Medical School, Boston, MA (June)

Invited Lecture, La Jolla Institute for Allergy and Immunology, San Diego, CA (August)

2007

Invited Lecture, Joslin Diabetes Center, Harvard Medical School, Boston, MA (January)

Invited Lecture, University of Chicago, Chicago, IL (March)

Invited Lecture, Mayo Clinic, Rochester, MN (December)

2008

Invited Lecture, University of Michigan, Ann Arbor, MI (January)

Invited Lecture, Baylor College of Medicine, Houston, TX (March)

Invited Lecture, University of Texas, Southwestern, Dallas, TX (March)

Invited Lecture, Institute for Systems Biology, Seattle, WA (April)

2009

Invited Lecture, Diabetes Center, UCLA, Los Angeles, CA (January)

Charles I. Siegal Memorial Lecture, Dana Farber Cancer Center, Harvard Medical School, Boston, MA (March)

Invited Lecture, Indiana University, Indianapolis, IN (November)

Invited Lecture, University of Pittsburgh, Pittsburgh, PA (November)

2010

Invited Lecture, UPenn, Philadelphia, PA (January)

Invited Lecture, MD Anderson Cancer Center, Houston, TX (February)

Invited Lecture, Yale, New Haven, CT (March)

Invited Lecture, Eppley Cancer Center, Omaha, NE (November)

2011

Invited Lecture, Massachusetts General Hospital, Boston, MA (March)

Invited Lecture, Pacific Northwest Research Institute, Seattle, WA (April)

Invited Lecture, Mayo Clinic Cancer Center, Jacksonville, FL (April)

2012

Invited Lecture, UMass, Worcester, MA (February)

Invited Lecture, U Washington, Seattle, WA (February)

Invited Lecture, Dana Farber Cancer Institute, Boston, MA (May)

Invited Lecture, Vanderbilt University, Nashville, TN (September)

2013

Invited Lecture, University of Michigan, Ann Arbor, MI (March)

Invited Lecture, University of Arizona Cancer Center, Tucson, MI (April)

Invited Lecture, University of Minnesota, Stem Cell Institute, Minneapolis, MN (May)

Invited Lecture, Stanford University, Palo Alto, CA (October)

Invited Lecture, UPenn, Philadelphia, PA (December)

2014

Invited Lecture, St. Jude Children¹s Research Hospital, Memphis, TN (January)

Invited Lecture, University of Texas, Southwestern, Dallas, TX (March)

Invited Lecture, University of Wisconsin - Madison, Madison, WI (April)

Invited Lecture, University of California, Berkeley, CA (April)

2015

Invited Lecture, University of Washington, Seattle, WA (December)

2016

Invited Lecture, Mt. Sinai, New York, NY (January)

Invited Lecture, University of Utah, Salt Lake City, UT (February)

Invited Lecture, Harvard University, Cambridge, MA (February)

Invited Lecture, Washington University, St. Louis, MO (August)

Invited Lecture, Endocrine Club, Cincinnati Children’s, Cincinnati, OH (October)

Invited Lecture, Seminar Series, Cincinnati Children’s, Cincinnati, OH (October)

2018

Invited Lecture, University of Wisconsin, Madison, WI (March)

Invited Lecture, Weill Cornell Medical Center, New York, NY (October)

2019

Invited Lecture, Comprehensive Diabetes Center at the University of Alabama at Birmingham, AL (January)

2020

Lecture, Brehm Coalition meeting (virtual), (September)

2021

Sixth annual Carolyn Clifford Distinguished Lecture on Nutrition and Cancer, UC Davis (virtual, February ‘21)

Lecture, Eli Lilly, (virtual, Mach ‘21)

Lecture, UCLA Islet Research Group (virtual, May ‘21)

2022

Lecture, Virtual Endoderm Club, Cincinnati’s Children’s Hospital Medical Center (CCHMC; virtual, February ‘22)

REGIONAL AND OTHER INVITED PRESENTATIONS:

1999

UCSF, BMS students; pizza talk (November)

UCSF, PIBS students; pizza talk (November)

2000

UCSF, Mini-symposium for prospective BMS students (January)

UCSF, Developmental Biology Retreat, Marconi Conference Center, CA (March)

UCSF, Metabolic Research Unit (July)

UCSF, BMS students; pizza talk (October)

UCSF, PIBS students; pizza talk (October)

UCSF, Biomedical Sciences Retreat (BMS), Granlibakken,CA (November)

2001

UCSF, Developmental Biology Retreat, Marconi Conference Center, Marshall, CA (February)

UCSF, Program in Biological Science Retreat (PIBS) (September)

UCSF, Endocrine-Metabolism Noon Conference, VA Medical Center (September)

UCSF, BMS; Pizza talk (September)

UCSF, PCMM Seminar Series, San Francisco General Hospital, San Francisco, CA (October)

UCSF, Diabetes Center, Seminar series (October)

UCSF, Medical Scientist Training Program Seminar Series, San Francisco, CA (October)

2002

UCSF, Developmental Biology Retreat, Marconi Center, CA (January)

UCSF, Comprehensive Cancer Center/Pancreatic Cancer Research Group (April)

UCSF, BMS; Pizza talk (November)

2003

UCSF, Developmental Biology Retreat, Marconi Center, CA (January)

UCSF, Endocrine Grand Rounds (February)

UCSF, Faculty Lunch, Department of Biochemistry (April)

UCSF, Comprehensive Cancer Center/Pancreatic Cancer Research Group (August)

UCSF, Biomedical Sciences Retreat, Tahoe City, CA (November)

UCSF, GI Grand Rounds, (November)

2004

UCSF, Program in Biological Science Retreat (PIBS) (September)

2005

UCSF, Mouse Models of Cancer, (November)

2006

UCSF, Molecular Medicine Program (March)

UCSF, Liver Center Retreat (March)

UCSF, Cancer Center (September)

2007

UCSF, Diabetes Center (January)

UCSF, Diabetes Patient Symposium (April)

JDRF Annual Research Meeting (Greater Bay Area Chapter), San Francisco (June)

2008

UCSF, Biomedical Sciences Friday Faculty Lunch (March)

UCSF, Biomedical Sciences Retreat, Tahoe City, CA (October)

2009

UCSF, Endocrine Grand Rounds (March)

UCSF, Cancer Center Symposium (August)

2010

UCSF, Pancreatic Cancer Program Retreat (January)

UCSF, Developmental Biology Retreat (February)

CIRM, Workshop with German representatives of the BMBF (German-Californian RegMed Initiative), (March).

2011

UCSF, Demystifying Science Lecture (with Margaret Tempero), (February)

UCSF, Biomedical Sciences Friday Faculty Lunch (February)

UCSF, Diabetes Updated and Advances in Endocrinology and Metabolism (March)

2012

Novartis, Emeryville, CA (March)

UCSF, John Baxter Memorial Symposium (March)

UCSF, Demystifying Science Lecture (with Margaret Tempero) (November)

2013

Endocrine Grand Rounds, UCSF (October)

UCSF, BMS; Pizza talk

DSCB Retreat, Marconi Conference Center (November)

2014

UCSF, DSCB Recruitment event (February)

UCSF, BMS; Pizza talk (September)

2015

2015 Bay Area Diabetes Summit (March)

UCSF, BMS; Pizza talk

2016

Second Annual Diabetes Fest, Ross (September)

Berkeley City College Biotechnology Program, Berkeley (September)

Developmental and Stem Cell Biology (DSCB) Graduate Student Program Retreat, Pt. Reyes (November)

2017

UCSF, Semi-Annual Fellows Research Seminar, Pediatric Gastroenterology (November)

2018

UCSF, DSCB; Pizza talk (September)

Keynote Speaker, Symposium, UC Berkeley Student Society for Stem Cell Research (SSSCR), Berkeley, CA (October)

2019

UCSF, Faculty talk

2020

UCSF, Diabetes Center Seminar (January)

UCSF, BMS retreat, Nook call with students (October)

UCSF, A T1D research update: The latest work on causes of type 1, beta cell replacement & clinical trials (November)

UCSF, Parker Institute for Cancer Immunotherapy (PICI) (December)

2021

UCSF, Parnassus Research in Progress (February)

**GOVERNMENT and OTHER PROFESSIONAL SERVICES**

**Review Grants**

2003-2009 *Full time* Medical Science Review Committee Member, Juvenile Diabetes Research Foundation

2005 Ad Hoc reviewer, NIDDK Board of Scientific Counselors Review

2006 Ad Hoc reviewer, NIH Study section DEV2 (Biology of Development & Aging)

2008, 2009 Ad Hoc reviewer, NIH Study section CADO

2008 - 2010 Reviewer, National Pancreas Foundation

2010 Co-chair, RFA review, Reprogramming for Beta Cell Replacement and Regeneration Therapies, Juvenile Diabetes Research Foundation

2010 Ad Hoc reviewer, NIH, Basic, Translational and Clinical Studies PO1 Special Emphasis Panel (NCI)

2010 Ad Hoc reviewer, On-site Review (San Diego), Juvenile Diabetes Research Foundation

2011 Ad Hoc reviewer, AACR/PanCAN, Postdoctoral Fellowships/CDA applications

2011- 2012 Reviewer, Grant proposals for Associazione Italiana per la Ricerca sul Cancro (AIRC)

2011 - 2015 Full time member, NIH Study section CADO

2013 - 2015 Chair, NIH Study section CADO

*Ad Hoc* reviewer American Diabetes Association, Medical Research Council (UK), Cure Cancer Australia Foundation (Australia), Australian National Health and Medical Research Council (NHMRC), and Endocrine Fellows Foundation

2014 - present Reviewer, Grant proposals for Associazione Italiana per la Ricerca sul Cancro (AIRC)

2016 Updated FDA staff on current strategies to generate functional insulin-producing beta cells from human stem cells

2016 Chair, Grant Review, Generating Improved Beta/Islet Cell Sources through Genetic Modification (RFA, JDRF)

2017 Reviewer, Industry Discovery & Development Partnerships (JDRF)

2017 Chair, NIH Special Emphasis Panel (SEP) Study Section; Endocrinology, Metabolism, Nutrition and Reproductive Sciences IRG (EMNR)

2018 Reviewer, New Investigator Pilot Awards, HIRN2 (NIH)

2019 Ad Hoc reviewer, NIH, GRB-J M2

2020 Chair, NIH Special Emphasis Panel/Scientific Review Group ZDK1 GRB-K (O2) 1, Review of R03 applications

2020 Ad Hoc reviewer, NIH ZDK1 GRB-2 (J1), Fellowships in Diabetes Endocrinology and Metabolic Diseases

2021 Ad Hoc reviewer, NIH, NIDDK DP1 Catalyst Awards

2022 Ad Hoc reviewer, European Research Council (ERC), Advanced Grant (AdG)

**Advisory Board - NIH**

2010 Member, NIDDK Diabetes Mellitus Interagency Coordinating Committee (DMICC); Working group “The Beta Cell.”

**Advisory Board - Foundations**

2008 - 2009 Member, Scientific Advisory Board, The Leona M. and Harry B. Helmsley Charitable Trust, NY

2012 - 2013 Member, Scientific Review Board, The Lustgarten Foundation, NY

2016-present Member, Scientific Advisory Board, Diabetes Research Center, Washington University, St. Louis, MO

2016-present Member, Scientific Advisory Board, Barbara Davis Center for Childhood Diseases, Denver, CO

2016-present Member, Research Advisory Committee, Juvenile Diabetes Research Foundation, New York, NY

2016-present Member, Scientific Advisory Committee, Americans for Cures Foundation, Palo Alto, CA

**UNIVERSITY AND PUBLIC SERVICE**

**UNIVERSITY SERVICE**

UCSF CAMPUS-WIDE

2000 - present BMS Graduate Admissions Interviewer

2000 - present PIBS Graduate Admissions Interviewer

2000 - 2010 BMS Admissions committee

2001 - 2006 Course director BMS Journal club (BMS 198)

2001 - 2004 MSTP Admissions Interviewer

2001 Participant Panel discussion for minority undergraduate students interested in applying to UCSF Graduate Programs

2001 - 2002 Endocrine Fellows Admissions Interviewer

2002 Participant Spring 2002 Science Colloquium, “Inside Scoop on Admissions and Financial Aid”, UCSF Graduate Division

2002 Participant 2002 Summer Research Training Program Basic Science Seminar Series

2002 Developmental Biology Program Representative for Orientation of incoming PIBS students

2003 - 2006 Co-chair, BMS Admissions committee (Chair, Nigel Killeen)

2004 - 2006 Co-chair, BMS Faculty Lunch Seminar series (co-chairing with Lewis Lanier, David Stokoe)

2004 - 2009 BMS Graduate Student Advisor

2004 Reviewer for intramural grants for the Program in Developmental and Stem Cell Biology

2005 - 2007 Co-Director, BMS 225A Tissue and Organ Biology (with Renee Reijo)

2006 - 2010 Chair, BMS Admissions committee

2006 Panel member, Preparing Future Faculty (PFF) seminar

2006 Panel member, Faculty Welcoming group, Session: ‘Building a Research Career’

2007 - 2009 Director, BMS 225A Tissue and Organ Biology

2009 - 2010 Co-Director, BMS 225B Tissue and Organ Biology

2009 - present Member, Executive Committee of the Biomedical Sciences (BMS) Graduate Student program

2008 - present Member, Executive Committee of the Developmental and Stem Cell Biology (DSCB) Graduate Student program

2010 - ~2015 Member, Long Range Development Plan (LRDP) Oversight Committee

2010 - ~2012 Research Resource Program Leadership Council

2010 - 2011 Member, Graduate Student Dean Search Committee

2013 Ambassador, UCSF 2025

2013 Member, Stewardship Review Committee for Alan Basbaum, Chair, Dept. of Anatomy

2014 - 2015 Member, Search Committee for School of Medicine Dean

2015 Panelist, Scientific Leadership and Laboratory Management Course 2014/15

2015 - 2016 Member, Committee, Parnassus/Mt Zion 2025

2017 Member, Search Committee, Vice Chancellor for Research

2018 Panelist, Mentorship and Career Development for PhD faculty at UCSF: Challenges and Opportunities

2018 Session Chair, Diller Cancer Center/Genentech Retreat

2018 Member, UCSF Biospecimen Resources (BIOS) Program Advisory Committee

SCHOOL OF MEDICINE

2001 - 2004 Steering Committee Member, Program in Developmental and Stem Cell Biology (DSCB)

2002 - 2004 Search Committee Member, Leader for the Program in Developmental and Stem Cell Biology (DSCB)

2002 - 2003 Member Executive Committee for Pilot and Feasibility Studies, Program in Developmental and Stem Cell Biology (DSCB)

2002 - 2008 Co-Director, NIH Diabetes Research Center (DERC) Microscopy Core

2002 - 2003 UCSF Fellows Application Reviewer

2002 - 2003 UCSF Liver Center Pilot Study Reviewer

2004 DSCB Training Grant Planning Committee member

2004 - 2005 Faculty Search Committee Member, Stem Cell Biology Program

2005 - 2006 Faculty Search Committee Member, Department of Anatomy

2005 - 2006 Faculty Search Committee Member, Program in Mesenchymal and Epithelial Biology

2007-present Co-Leader, Diabetes and Liver Disease program, Institute of Regenerative Medicine (IRM)

2008 Interviewer, Search for new School of Medicine Dean

2009 Participant, SOM Leadership Retreat

2010 Participant, SOM Leadership Retreat

2010 Panel discussion participant, Helen Diller Family Comprehensive Cancer Center Showcase

2012-2014 Member, Search Committee, Division Chief, Pediatric Endocrinology

2015 - 2016 Member, Committee, Leadership & Operational Training for Managers

2015 - 2020 Member, Dean’s Diversity Fund Committee for Faculty Recruitment and Retention

2016 - present Member, Internal Advisory Board, UCSF Liver Center

2016 - 2019 Member, School of Medicine Budget and Finance Committee

2017 Member, Search Committee, Vice Dean for Research

2017 - 2018 School of Medicine Strategic Plan (Basic Science Working group)

2019 Member, SOM Salary Scale Work Group

2019 - 2021 Chair, Search Committee, Director, Center for Reproductive Sciences (CRS)

DEPARTMENTAL SERVICE

2000 - 2001 Diabetes Center, Annual Symposium Committee

2001 - present Diabetes Center, Committee for Animal Research

2002 - 2005 Diabetes Center/BMS Faculty Recruitment Committee

2005 - 2008 Chair, Diabetes Center Promotions Committee for Adjunct Professors

2005 - 2006 Member, Faculty Search Committee, Joint Search, Diabetes Center & Stem Cell Biology Program

2008 - 2009 Chair, Faculty Search Committee for candidates in Inflammation and Type 2 Diabetes, Joint Search, Diabetes Center & Institute for Molecular Medicine

2008 Member, Faculty Search Committee, Joint Search, Cardiovascular Research Institute & Diabetes Center

2009 - 2010 Chair, Faculty Search Committee for Candidates in Diabetes, Joint Search, Diabetes Center & Institute for Molecular Medicine

**PUBLIC SERVICE**

Organizing Committee, Annual Retreat, NIH ß-Cell Biology Consort., Nov. ‘02, Leesburg, VA

Organizing Committee, Annual Retreat, NIH ß-Cell Biology Consortium, Oct. ‘03, Atlanta, GA

Transgenic Mouse Committee, NIH ß-Cell Biology Consortium

Interviews with *Science Magazine*, *Nature Reviews Cancer*, and *Science Today Radio Program* about the role of Hedgehog signaling during formation and maintenance of pancreatic cancer

Interview with *Insulin-Free Times* about our research on pancreas development

Interview with Michael Waldholz, “The Wall Street Journal” News Editor and Senior Special Writer for Health & Science

Scientific advisory board, Proposition 71 (Stem cell proposition) (2004)

Informal discussion about stem cell research with Thomas Lenferding (German Consul for Cultural/Consular Affairs) and Daniel Bahr, member of the German House of Representatives (2006)

Supervised/mentored High school student Jared Shenson during summer internship (2007)

Interviewed for and article describing our work printed in ‘Forefront’ magazine, produced by the American Diabetes Association (2007)

Interviewed for and article describing our work printed in ‘Countdown’ magazine, produced by the Juvenile Diabetes Research Foundation (2007)

Research Update, Father of the Year Award Ceremony sponsored by the American Diabetes Association, Sacramento Chapter

Research Update, Annual meeting of the San Francisco Bay Area Juvenile Diabetes Research Foundation (JDRF) chapter

Interviewed for UCSF Science Café podcast (2008)

Panelist, Islet Transplantation, San Francisco, CA (September, 2008)

Panelist, UCSF Stem Cell Forum (hosted by Michael Krasny, NPR/KQED, November, 2008)

Participant, Workshop with delegates of the German Excellence Initiative, Goethe-Institute, San Francisco, CA (December, 2008)

Participant, California Institute of Regenerative Medicine (CIRM)/German Regenerative Medicine Center Workshop, San Francisco, (December 2008)

Panelist, UCSF Pediatric Diabetes Symposium & Kids Camp, San Francisco, CA (February, 2009)

Interview with Alice Park, Department Head, Science, TIME magazine (July, 2009)

Participant, JDRF sponsored meeting with Senator Diane Feinstein (August, 2009)

Interview with Alex Lash, Reporter for Elsevier Business Intelligence (August, 2010)

Interview with Erika Check Hayden, Senior Reporter, Nature (March 2011)

Interview with John Fowler, KTVU News (April 2011)

Interview with Eryn Brown, Science Writer, Los Angeles Times (October 2011)

Moderator, Bay Area Science Festival, UCSF’s Science at Lunch Series (November 2011)

Interview with Wall Street Journal medical/health editor Ron Winslow (January 2012)

Featured in Movie Clip for Pancreatic Cancer Action Network (PanCan) (June 2012)

Interview with New York Times Reporter Amanda Schaffer, (Article published in NYT on October 2, 2012)

Interview with Chris Palmer, Nature News Reporter (Article published in Nature on April 25, 2013)

Interview with Carolyn Y. Johnson, Science Reporter, Boston Globe (Article published in Boston Globe on April 25, 2013)

Presentation, Bay Area Diabetes Summit, Hayward, CA (March 2014)

Presentation, Bay Area Diabetes Summit, Palo Alto, CA (March 2015)

Interview with Tia Ghose, Live Science Senior Writer (January 2016)

Interview with Denise Michelsen, RCN-National Radio of Colombia (January 2016)

Interview with Kat Long, Wall Street Journal (February 2016)

Member, JDRF supported Delegation that met with staff members of Senators Barbara Boxer and Diane Feinstein as well as Representative Jackie Speier on Capitol Hill, Washington, DC (June 2016)

Presentation at the Federal Drug Administration (FDA) regarding the state of stem cell therapies on behalf of the Juvenile Diabetes Research Foundation (JDRF), Silver Springs, MD (June 2016)

Interview with the Laney Tower Reporter Alexandra L. Evans (September 2016) (<http://thelaneytower.com/2016/10/13/stem-cells-for-diabetes/>)

Interview with Helen Joyce, International editor, The Economist (December 2016)

Interview with Eleanor D. Kennedy regarding highlighting our stem cell work for Diabetes Research and Wellness Foundation in the UK and the Diabetes Wellness Network in Sweden

Member, ADA supported ‘Advocacy Call to Congress’ Delegation, Washington, DC (March 2017)

Interview, German Center for Diabetes Research (DZD) (May 2017)

Interview, Jonathan Wosen, Reporter, [GEN](http://www.genengnews.com/), a genetic engineering and biotechnology news site (September 2017)

Interview, Keshav Subramanian, for Berkeley Student website forum ‘Synapse’ (October 2017)

Reddit AMA session on our recent study on the generation of functional beta cells from human ESCs, (February 2019); 7,200 upvotes, a **record** for UCSF-hosted AMAs; 48,400 unique visitors to our AMA forum

Interview, Eric Bender, Journalist for the ‘Scientist’ (March 2019)

Panel Member, Bay Area Diabetes Summit, (April 2019)

Panelist, JDRF San Francisco Chapter Annual meeting (September 2019)

Interview, Danny Fortson, Journalist for The Sunday Times (September 2019)

Interview, Serena Gordon, Reporter, HealthDay (February 2020)

Panel Member, JDRF Top donor, JDRF Center of Excellence in Northern California – A Cure Accelerator”**,** Zoom meeting (April 2020)

Panel Member, Bay Area Diabetes Summit, (April 2020)

Interview for [ReachMD](https://urldefense.proofpoint.com/v2/url?u=https-3A__reachmd.com_&d=DwMFAg&c=iORugZls2LlYyCAZRB3XLg&r=tA7LZpG_aB9KBfeZtskwfjY-OIaKPVMqkXPFzx_fonY&m=oZwlUYQvwF8GCsdvo4u5Aj8uKc84X9AjCntNqXFIXZ8&s=NtEheUeBJaxKUX40pmLCu662xie9Xnf3IGd6v8p-mYQ&e=), a peer-to-peer healthcare broadcast company with over 3.5 million subscribers, as highlighted thought leader for their [*Diabetes Discourse*](https://urldefense.proofpoint.com/v2/url?u=https-3A__reachmd.com_programs_diabetes-2Ddiscourse_&d=DwMFAg&c=iORugZls2LlYyCAZRB3XLg&r=tA7LZpG_aB9KBfeZtskwfjY-OIaKPVMqkXPFzx_fonY&m=oZwlUYQvwF8GCsdvo4u5Aj8uKc84X9AjCntNqXFIXZ8&s=q52H7dodPjk32p6zBMYJbaqhlqzEX8mZDexhyB1OmJQ&e=) series (February, 2021)

Interview with Kendall Morgan for WebMD Magazine, (February, 2021)

Panel Member, Visionaries Speak Roundtable Series (April, 2021)

Interview with Elie Dolgin, Science journalist (Boston) (November, 2021)

Interview with Richard Stein, Freelance journalist for Genetic Engineering and Biotechnology News (December, 2021)

Consultation, Type 1 Diabetes Fund, JDRF (December, 2021)

**TEACHING and MENTORING**

FORMAL SCHEDULED CLASSES FOR UCSF STUDENTS:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Qtr.** | **Academic Yr.** | **Course No. & Title** | **Teaching Contribution** | **Units** | **Class Size** |
| W/Sp | 2002-2003 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader, Lab Instructor | 6 | ~20 |
| F | 2002-2003 | Cell Biology (BMS 260) | Discussion leader | 12 | ~20 |
| W/Sp | 2003-2004 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader, Lab Instructor | 6 | ~25 |
| F | 2003-2004 | Cell Biology (BMS 260) | Discussion leader | 12 | ~25 |
| W/Sp | 2004-2005 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader, Lab Instructor | 6 | ~30 |
| F | 2004-2005 | Cell Biology (BMS 260) | Discussion leader | 12 | ~30 |
| W | 2005-2006 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader | 4 | ~30 |
| W | 2006-2007 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader | 4 | ~30 |
| Sp | 2006-2007 | Stem Cell Biology (BMS 220) | Lecturer | 2 | ~25 |
| W | 2007-2008 | Tissue & Organ Biology (BMS 225) | Lecturer, Discussion Leader | 4 | ~30 |
| W | 2008-2009 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~30 |
| W | 2009-2010 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| W | 2010-2011 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| W | 2011-2012 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| SP | 2012-2013 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| W | 2012-2013 | Stemness in Cancer (DSCB 270, Mini Course) | Lecturer | 2 | ~20 |
| F | 2012-2013 | Development and Stem Cell Biology (DSCB 257) | Lecturer | 2 | ~10 |
| W | 2013-2014 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| SP | 2013-2014 | Stemness in Cancer (DSCB/BMS 270, Mini Course) | Lecturer | 2 | ~10 |
| SP | 2013-2014 | CIRM ("Basics of Stem Cell Biology) | Lecturer | 2 | ~10 |
| W | 2014-2015 | Tissue & Organ Biology (BMS 225) | Lecturer | 2 | ~20 |
| F | 2014-2015 | Development and Stem Cell Biology (DSCB 257) | Lecturer | 2 | ~10 |
| SP | 2014-2015 | BMS Mini Course (270) – Stemness in Cancer | Lecturer | 2 | ~10 |
| F | 2015-2016 | Development and Stem Cell Biology (DSCB 257) | Lecturer | 2 | ~10 |
| F | 2016-2017 | Development and Stem Cell Biology (DSCB 257) | Lecturer | 2 | ~10 |
| F | 2017-2018 | Advanced Topics in Cancer Research (BMS 230) | Lecturer | 2 | ~5 |
| F | 2018-2019 | Research Seminar Course, Nutrition Sciences and Toxicology, Berkeley (NST 293) | Lecturer | 1 | ~7 |
| SP | 2020-2021 | 2022 GEMS Minicourse: Introduction to Human Biology and Medicine | Lecturer | 1 | ~10 |
| SP | 2021-2022 | 2022 GEMS Minicourse: Introduction to Human Biology and Medicine | Lecturer | 1 | ~10 |

MASSIVE OPEN ONLIN COURSES (MOOC):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Qtr.** | **Academic Yr.** | **Course No. & Title** | **Teaching Contribution** | **Units** | **Class Size** |
| W | 2013 | Coursera Course on Diabetes | Lecturer | 1 | unknown |

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Program** | **Role** | **Current Position** |
| 2001 - 2007 | Patrick Heiser | BMS | Mentor, Research Supervision | Director, Reproductive Health and Urology, US Clinical at Ferring Pharmaceuticals |
| 2002 - 2010 | Janet Lau | BMS | Mentor, Research Supervision | Senior Research Associate, Genentech, South San Francisco, CA |
| 2003 - 2007 | Regina Burris. | PIBS | Mentor, Research Supervision | Medical Writer and Editor |
| 2005 - 2011 | John Morris | BMS | Mentor, Research Supervision | Postdoctoral Fellow, Memorial Sloan Kettering Cancer Center, NY |
| 2007 - 2012 | Renee Vanderlaan | BMS | Mentor, Research Supervision | Postdoctoral Fellow, Oregon |
| 2014-2016 | Thomas Hennings | BMS | Mentor, Research Supervision | Graduate Student |
| 2015 - 2021 | Natanya Kerper | BMS | Mentor, Research Supervision | Graduate Student |
| 2017 - present | Laura Leonhardt | University of Cologne, Germany | Mentor, Research Supervision | Graduate Student |
|  |  |  |  |  |
|  |  |  |  |  |
| 1999 - 2000 | Holly Ann Field | PIBS | Qualifying Exam | Freelance Medical Writer  [Springfield,](https://www.linkedin.com/vsearch/p?f_G=us%3A800&trk=prof-0-ovw-location) MA |
| 2000 – 2001 | Nick Osborne | BMS | Thesis Committee | Clinical Strategy Scientist at Cato Research, Springfield, MA |
| 2000 – 2001 | James Linton | BMS | Qualifying Exam | Research Scientist at Caltech, CA |
| 2000 - 2001 | Nick Osborne | BMS | Qualifying Exam | Clinical Strategy Scientist at Cato Research, Springfield, MA |
| 2001 | Patrick Heiser | BMS 225 | Examiner, Oral Presentation (BMS 225A) | Director, Reproductive Health and Urology, US Clinical at Ferring Pharmaceuticals |
| 2001 | Jennifer Lilla | BMS 225 | Examiner, Oral Presentation (BMS 225A) | Disease Area Manager at CardioVascular Resource Group, LLC |
| 2001 | Demetris Iacovides | BMS 225 | Examiner, Oral Presentation (BMS 225A) | Postdoc at Lawrence Berkeley National Laboratory |
| 2001 – 2002 | Anne Marie Wehmann | PIBS | Qualifying Exam | Junior Group Leader at University of Würzburg, Germany |
| 2001 – 2002 | Analeah Sundberg | PIBS | Qualifying Exam | Scientist, Genomics Institute of the Novartis Foundation |
| 2002 | Claudia Grossman | BMS | Examiner, Oral Presentation (BMS 225A) | Not known |
| 2002 | Janet Lau | BMS | Examiner, Oral Presentation (BMS 225A) | Senior Research Associate, Genentech, South San Francisco, CA |
| 2002 – 2006 | Anne Marie Wehmann | PIBS | Thesis Committee | Junior Group Leader at University of Würzburg, Germany |
| 2002 – 2003 | Emil Palacios | BMS | Qualifying Exam | Principle Scientist at Roche Molecular Systems, CA |
| 2002 – 2003 | Danielle Behonick | BMS | Qualifying Exam | Not known |
| 2002 – 2003 | Kevin Vogeli | PIBS | Qualifying Exam | Resident Physician at LAC USC, Los Angeles, CA |
| 2002 – 2003 | Curtis Pickering | PIBS | Qualifying Exam | Assistant Professor at MD Anderson Cancer Center  Houston, TX |
| 2003 | Susan Levin | BMS | Examiner, Oral Presentation (BMS 225A) | High School Teacher |
| 2003 | Cynthia Mysinger | BMS | Examiner, Oral Presentation (BMS 225A) | Not known |
| 2003 - 2004 | Chantilly Munson | PIBS | Chair, Qualifying Exam | Not known |
| 2003 - 2004 | Matthew Chun | PIBS | Chair, Qualifying Exam | Postdoctoral Fellow, Salk Institute, San Diego, CA |
| 2003 - 2004 | Aaron Tooley | BMS | Qualifying Exam | Creator of Great Content  [San Francisco](https://www.linkedin.com/vsearch/p?f_G=us%3A84&trk=prof-0-ovw-location), CA |
| 2003 - 2004 | Alika Maunakea | BMS | Qualifying Exam | Assistant Professor, Department of Native Hawaiian Health, JABSOM, UHM  [Honolulu, HI](https://www.linkedin.com/vsearch/p?f_G=us%3A332&trk=prof-0-ovw-location) |
| 2003 - 2005 | Michael Verzi | PIBS | Thesis Committee | Assistant Professor, Rutgers University |
| 2003 - 2006 | Karen Fitzgerald | BMS | Thesis Committee | Associate Scientist at Amgen, South San Francisco, CA |
| 2004 - 2005 | Hosein Kouros-Mehr | BMS | Chair, Qualifying Exam | Scientist, Genentech, South San Francisco |
| 2004 | Dustin Khiem | BMS | Qualifying Exam | Medical Communications Sr. Manager at Amgen, CA |
| 2004 - 2007 | Chantilly Munson | PIBS | Thesis Committee | Not known |
| 2004 - present | Matthew Chun | PIBS | Thesis Committee | Postdoctoral Fellow, Salk Institute, San Diego, CA |
| 2005 - 2006 | Hosein Kouros-Mehr | BMS | Thesis Committee | Scientist, Genentech, South San Francisco |
| 2005 | Won-Suk Chung | BMS | Qualifying Exam | Postdoctoral Fellow, Stanford University |
| 2005 - 2011 | Won-Suk Chung | BMS | Thesis Committee | Postdoctoral Fellow, Stanford University |
| 2006 | Morgan Truitt | BMS | Examiner, Oral Presentation (BMS 225A) | Graduate Student |
| 2006 | Alana Lerner | BMS | Examiner, Oral Presentation (BMS 225A) | Scientist II at Onyx Pharmaceuticals, South San Francisco, CA |
| 2006 | Rowena Suriben | PIBS | Qualifying Exam | Postdoctoral Student, Genentech |
| 2007 | Emily Gogol | BMS | Examiner, Oral Presentation (BMS 225A) | Scientist and Community Organizer, CA |
| 2007 | Joyce Hu | BMS | Examiner, Oral Presentation (BMS 225A) | Postdoc at La Jolla Institute of Allergy and Immunology, San Diego, CA |
| 2007 | Kegan Warner | BMS | Examiner, Oral Presentation (BMS 225A) | Not known |
| 2007 | Michael Patnode | BMS | Examiner, Oral Presentation (BMS 225A) | Postdoctoral Fellow at Washington University in St. Louis, MI |
| 2007 | Emily Elliott | BMS | Examiner, Oral Presentation (BMS 225A) | Associate Director, Center for Teaching and Learning at University of Pennsylvania, Philadelphia, PA |
| 2007 | You Bin Lin | BMS | Examiner, Oral Presentation (BMS 225A) | Research Scientist at Veredus Laboratories, Singapore |
| 2007 | Alana Lerner | BMS | Chair Qualifying exam | Scientist II at Onyx Pharmaceuticals, South San Francisco, CA |
| 2007 | Nicole Santos | BMS | Qualifying exam | Not known |
| 2007 | Morgan Truitt | BMS | Qualifying exam | Graduate Student |
| 2008 | Eleanor Clowney | BMS | Examiner, Oral Presentation (BMS 225A) | Not known |
| 2008 | Katie Austgen | BMS | Examiner, Oral Presentation (BMS 225A) | Not known |
| 2008 | Leonard Chavez | BMS | Examiner, Oral Presentation (BMS 225A) | Postdoctoral Fellow at Blood Systems Research Institute, CA |
| 2008-present | Nicole Santos | BMS | Thesis Committee | Not known |
| 2008-2011 | Alana Lerner | BMS | Chair, Thesis Committee | Scientist II at Onyx Pharmaceuticals, South San Francisco, CA |
| 2008 | Helen Hwang | BMS | Qualifying exam | Specialist, Global Regulatory Affairs, Allergan, Irvine, CA |
| 2008-2009 | Morgan Truitt | BMS | Chair, Thesis Committee | Graduate Student |
| 2009 | Michael Sachs | BMS | Qualifying exam | Pipeline and Portfolio Planning, Genentech, South San Francisco, CA |
| 2009-present | Michael Sachs | BMS | Thesis Committee | Pipeline and Portfolio Planning, Genentech, South San Francisco, CA |
| 2010 | Amanda Mason | MSTP | Rotation Supervisor | Graduate Student |
| 2010 | Marie La Russa | BMS | Rotation Supervisor | Graduate Student |
| 2010 | Caroline Tang | MSTP | Coach, Journal Club | Graduate Student |
| 2011 | Allyson Spence | BMS | Examiner, Oral Presentation (BMS 225A) | Graduate Student |
| 2011 | Samantha Bell | BMS | Examiner, Oral Presentation (BMS 225A) | Graduate Student |
| 2012 | Robert Hesse | BMS | Qualifying exam | Graduate Student |
| 2012-2015 | Robert Hesse | BMS | Thesis Committee | Graduate Student |
| 2013 | Thomas Hennings | BMS | Rotation Supervisor | Graduate Student |
| 2015 | Natanya Kerper | BMS | Rotation Supervisor | Graduate Student |
| 2016 | Bernadette Hsu | BMS | Chair, Qualifying Exam Committee | Graduate Student |
| 2016 | Christina Adams | BMS | Member, Qualifying Exam Committee | Graduate Student |
| 2017 - 2018 | Lauren Byrnes | BMS | Thesis Committee | Graduate Student |
| 2021 | Jennifer Loan Ngo | Major, Biochemistry & Molecular Biology | Career advice | Undergraduate, UC Davis |

POST DOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Fellow** | **Faculty Role** | **Current Position** |
| 2001 - 2005 | Hiroshi Kawahira, M.D., Ph.D. | Postdoc | Mentor, Research Supervision | Professor, Chiba University, Japan |
| 2002 – 2003 | Manolis Tzanakakis, Ph.D. | Postdoc | Mentor, Research Supervision | Chair and Professor, Chemical and Biological Engineering, Tufts University, MA |
| 2002-2007 | David Cano, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, National Research Council, Sevilla, Spain |
| 2002-2008 | Marina Pasca di Magliano, Ph.D. | Postdoc | Mentor, Research Supervision | Associate Professor, University of Michigan, Ann Arbor |
| 2003-2007 | Pedro Gutierrez, Ph.D. | Postdoc | Mentor, Research Supervision | Program Director, Murray Hill Place, Inc, CA |
| 2004-2010 | Sara Cervantes, Ph.D. | Postdoc | Mentor, Research Supervision | Collaborator Professor, IQS School of Engineering, Barcelona, Spain |
| 2004-2007 | Shigeki Sekine, M.D., Ph.D. | Postdoc | Mentor, Research Supervision | Section Head, Pathology Division, National Cancer Center Research Institute, Tokyo, Japan |
| 2004-2008 | Geraldine Bienvenu, Ph.D. | Postdoc | Mentor, Research Supervision | Ingénieur d’étude, INSERM Center of Research in Transplantation & Immunology, Nantes, France |
| 2004-2009 | Sapna Puri, Ph.D. | Postdoc | Mentor, Research Supervision | Academic Administrator, UCSF Diabetes Center |
| 2006 - 2010 | Lutz Kockel, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, Stanford University |
| 2007 - 2008 | Caitilin Hamill, Ph.D. | Postdoc | Mentor, Research Supervision | Senior Regulatory Management Officer, Food and Drug Administration (FDA) |
| 2007 - 2012 | Limor Landsman, Ph.D. | Postdoc | Mentor, Research Supervision | Assistant Professor, Tel Aviv University, Tel Aviv, Israel |
| 2008 - 2012 | Akihisa Fukuda, M.D., Ph.D. | Postdoc | Mentor, Research Supervision | Assistant Professor, Kyoto University, Japan |
| 2008 - 2010 | Sam Wang, M.D. | Postdoc/Surgery Fellow | Mentor, Research Supervision | Assistant Professor, UT Southwestern Medical School, Dallas, TX |
| 2008 - 2014 | Tingxia Guo, Ph.D. | Postdoc | Mentor, Research Supervision | Associate Director, Fate Therapeutics Inc, San Diego |
| 2008 - 2014 | Alexandra Folias, Ph.D. | Postdoc | Mentor, Research Supervision | Associate, dQ&A Market Research Inc., San Francisco |
| 2009 – 2010 | Muluye Liku, Ph.D. | Postdoc | Mentor, Research Supervision | Not known |
| 2009 – 2011 | Thu Ho, M.D. | Pediatric Endocrinology, Fellow | Mentor, Research Supervision | Not known |
| 2010 – 2016 | Audrey Parent, Ph.D. | Postdoc | Mentor, Research Supervision | Adjunct Assistant Professor, UCSF Diabetes Center |
| 2010 – 2013 | Guido von Figura, M.D. | Postdoc | Mentor, Research Supervision | Group Leader, Technical University, Munich |
| 2010 – 2016 | Holger Russ, Ph.D. | Postdoc | Mentor, Research Supervision | Assistant Professor, Barbara Davis Center, University of Colorado, Denver, CO |
| 2011 – 2016 | Binnaz Staley, Ph.D. | Postdoc | Mentor, Research Supervision | Senior Scientist, Abbvie |
| 2012 – 2014 | Kelly Kaihara, Ph.D. | Postdoc | Mentor, Research Supervision | Head, Product Marketing, Mission Bio |
| 2013 – 2017 | Nilotpal Roy, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, Vividion Therapeutics |
| 2013 – 2015 | Atsushi Urano, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, Daiichi |
| 2013 – 2014 | Pamela Pulimeno, Ph.D. | Postdoc | Mentor, Research Supervision | Research Topic Specialist, Frontiers, Lausanne, Switzerland |
| 2014 – 2017 | Jennifer Liu, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, Plexxikon, Berkeley, CA |
| 2014 – present | Gopika Nair, Ph.D. | Postdoc | Mentor, Research Supervision | Research Scientist, UCSF Diabetes Center |
| 2016 – 2020 | Ronan Russel, Ph.D. | Postdoc | Mentor, Research Supervision | Senior Scientific Researcher, Genentech |
| 2016 – 2020 | Audrey Hendley, Ph.D. | Postdoc | Mentor, Research Supervision | UCSF, Department of Surgery |
| 2017 – 2021 | Youngjin Kim, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, Stanford University |
| 2017 – 2021 | Eleonora de Klerk, Ph.D. | Postdoc | Mentor, Research Supervision | Scientist, IRIS RNA Therapeutics |
| 2019 – present | Sudipta Ashe, Ph.D. | Postdoc | Mentor, Research Supervision | UCSF Diabetes Center |
| 2021 – present | Veronica Cochrane, Ph.D. | Postdoc | Mentor, Research Supervision | UCSF Diabetes Center |
| 2021 – present | Yi-Ni Xiao, Ph.D. | Postdoc | Mentor, Research Supervision | UCSF Diabetes Center |
| 2021 – present | Hasna Maachi, Ph.D. | Postdoc | Mentor, Research Supervision | UCSF Diabetes Center |

FACULTY MENTORING:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Position while Mentored** | **Mentoring Role** | **Current Position** |
| 2003-2006 | Jeremy Reiter., M.D., Ph.D. | UCSF Fellow | Career Advisor | Associate Professor, Biochem. & Bioph.. UCSF |
| 2003-2007 | Miguel Ramalho-Santos, Ph.D. | UCSF Fellow | Academic and Research Collaborator/Advisor | Associate Professor, Institute for Regenerative Medicine, UCSF |
| 2005-2011 | Holger Willenbring, M.D., Ph.D. | Assistant Professor | Career Advisor | Associate Professor, Surgery, UCSF |
| 2008-2015 | Diana Laird, Ph.D. | Assistant Professor | Mentor | Associate Professor, Institute for Regenerative Medicine |
| 2008-2013 | Mark Ansel, Ph.D. | Assistant Professor | Mentor | Associate Professor, Microbiology and Immunology |
| 2011-2016 | Shingo Kajimura, Ph.D. | Assistant Professor | Informal Mentor | Assistant Professor, Diabetes Center |
| 2011- 2017 | Suneil Koliwad, M.D., Ph.D. | Assistant Professor | Informal Mentor | Associate Professor, Diabetes Center |
| 2013-2020 | Greg Ku, MD, Ph.D. | Assistant Professor | Informal Mentor | Associate Professor, Diabetes Center |
| 2013-2016 | Alexander Marson, M.D., Ph.D. | UCSF Fellow | Informal Mentor | Associate Professor, Department of Microbiology & Immunology and Diabetes Center |
| 2015-present | Rushika Perera, Ph.D. | Assistant Professor | Informal Mentor | Department of Anatomy |

**SUMMARY OF TEACHING HOURS**

2012 – 2013: ~300 total hours of teaching

Formal class or course teaching hours: 2 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 8 hours

2013 – 2014: ~300 total hours of teaching

Formal class or course teaching hours: 6 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2014 – 2015: ~300 total hours of teaching

Formal class or course teaching hours: 4 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2015 – 2016: ~300 total hours of teaching

Formal class or course teaching hours: 4 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2016 – 2017: ~300 total hours of teaching

Formal class or course teaching hours: 4 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2017 – 2018: ~300 total hours of teaching

Formal class or course teaching hours: 4 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2018 – 2019: ~300 total hours of teaching

Formal class or course teaching hours: 2 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 290 hours

Other hours - preparation: 4 hours

2019 – 2020: ~300 total hours of teaching

Formal class or course teaching hours: 0 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 300 hours

2020 – 2021: ~300 total hours of teaching

Formal class or course teaching hours: 2 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 300 hours

2020 – 2021: ~300 total hours of teaching

Formal class or course teaching hours: 2 hours

Informal class or course teaching hours: 0 hours

Mentoring hours: 300 hours