Jennifer Oliveros Manilay

University of California, Merced Molecular Cell Biology (MCB) Cell Phone: (209) 201-6957 Email: <u>jmanilay@ucmerced.edu</u> Public Profile: <u>linkedin.com/in/jennifer-o-manilay-she-her-hers-a2b55513</u>

Research Interests

stem cell biology, developmental immunology, hematopoiesis

Education

PhD, Harvard University, 1999. Major: Immunology Advisor: Sykes, M.

BA, University of California, Berkeley, 1992.Major: Molecular and Cell Biology (emphasis in Immunology) Minor: Ethnic Studies

Academic and Professional Positions

Department Chair, Molecular Cell Biology (MCB), University of California, Merced (2020-present)

I accepted this leadership position in the early months of the COVID-19 pandemic. Reporting to the Dean of the School of Natural Sciences, I am responsible for program planning, assessment, personnel reviews, budget, facilities and space, and overseeing health and safety regulations. MCB is the largest department in the School and includes 25 ladder-rank faculty and 6-8 contingent faculty. I am leading efforts to foster a departmental culture where diversity is embraced, we strive for equity as we pursue scientific excellence, we share a common dedication to science education and where interdisciplinarity and collegiality lead to creative solutions for complex problems.

Professor, Molecular Cell Biology (MCB), University of California, Merced (2019-present)

I continue to lead my team to investigate questions in osteoimmunology. My new collaborations with bioengineers have resulted in two funded NIH proposals, manuscripts and selection for presentations by my graduate students at scientific conferences. I continue to incorporate inclusive teaching practices in my courses.

Program Director, UC Merced's HHMI Inclusive Excellence in Science Education (2018-present).

I am responsible for overseeing this 5 year project grant aimed at developing inclusive teaching pedagogy training for faculty, converting biology laboratory curriculum to authentic research experiences, and creating faculty-student learning communities to promotion learning, retention, persistence and sense of belonging for all students.

STEM Associate Director, Higher Education Resource Services (HERS) (2016).

As STEM Associate Director, I led the 2-Day orientation for Clare Boothe Luce Fellows, hosted members of the HERS Alumnae Group and program officer of the Clare Boothe Luce Foundation, as part of this 2-week professional development training event at Bryn Mawr College. I also supported opportunities for the STEM-minded HERS fellows to create professional networks and organize a follow-up gathering for HERS STEM Alumnae.

Academic Personnel Chair, Molecular Cell Biology Unit, University of California, Merced (2013 - 2016)

Responsible for academic personnel processes and serving as the line of communication between the MCB faculty and the Dean on Unit resource needs and teaching plans; member of the School of Natural Sciences Leadership Council

Associate Professor, Molecular Cell Biology (MCB), University of California, Merced (2012-2019)

Since achieving tenure, I directed my research focus to developmental immunology and osteoimmunology, with a focus on hematopoiesis and lymphocyte development. I published primary and review articles with members of my group as co-authors, and was awarded research funding from federal, state and private sources. I made several innovations in my teaching and have pursued a new interest in undergraduate curriculum reform in STEM.

Assistant Professor, Molecular Cell Biology (MCB), University of California, Merced (2005-2012).

Founding member of the UC Merced faculty. Member of the Quantitative and Systems Biology (QSB) Graduate Group. During my years as an Assistant Professor, I initiated my research lab, was awarded multi-year research funding, and published several primary and review articles with my graduate students, staff and undergraduate researchers. I designed and delivered the first iterations of several undergraduate and graduate courses in the Biology

August 28, 2021

and QSB programs, and contributed significantly to the administrative review process that led to approval of the QSB Graduate Program by the University of California.

Postdoctoral Fellow/Associate Specialist, University of California, Berkeley. (2000 - 2005).

Studies focused on the basic development of T cells and showed that the protease Kuzbanian (ADAM-10) is a regulator of Notch signaling in thymocytes but might also be involved in Notch-independent signaling pathways. Results were published in the Journal of Immunology and were presented at Keystone Symposia, the International Congress of Immunology and Thymus International Meetings.

Instructor, University of California, Berkeley - Extension. (2004).

Team-taught Introductory Biology organized for adult learners. Developed a UC Berkeley-approved syllabus, wrote the graded exams, and reviewed student research papers.

Professor in Training (Scholar-in-Residence Program), Wellesley College. (1999 - 2000).

Awarded a one-year competitive teaching fellowship designed to provide teaching experience at liberal arts colleges. Developed an original weekly seminar in which social and ethical impacts of biology were discussed. Shared lecture responsibilities for Introductory Biology with Laboratory, and independently led one laboratory section, wrote and graded exams and lab reports.

Doctoral Student, Harvard University. (1993 - 1999).

Thesis Advisor: Dr. Megan Sykes. Investigated the mechanics of self/non-self discrimination and tolerance in natural killer cells. Studies resulted in the publication of three reports and one review article, and were presented at two national immunology meetings. Dissertation title: "Environmental Determinants of Natural Killer Cell Recognition and Ly49 Receptor Expression in Mixed Allogenic Bone Marrow Chimeras"

Teaching Assistant (Immunology), Harvard Markey Biomedical Science Program. (1995).

Presentation of relevant journal reports, grading of exams, critiquing of final grant proposals for this graduate-level course

Teaching Fellow (Molecular and Cellular Immunology), Harvard University. (1995).

Responsibilities included organization of weekly discussion section, writing and grading exams, occasional lecture to entire class of undergraduates.

Staff Research Associate, University of California, Los Angeles School of Medicine. (1992 - 1993). Supervisors: Dr. Peter A. Sieling and Dr. Robert Modlin. Assisted in studies involving the immunology of human leprosy.

Undergraduate Student Instructor in Biology, University of California, Berkeley. (1991).

Assistant to Graduate Student Instructor in Introductory Biology lab section.

Summer Research Fellow, University of California, San Diego. (1991).

Supervisors: Dr. Mark Sawyer. Generated and tested laboratory protocols to detect different enterovirus strains in patient samples by PCR.

Professional Development

Workshop, "ACAD Dean's Institute," AAC&U Annual Meeting, Washington D.C. (January 2020).

- Workshop, UC STEM Faculty Learning Community STEM Equity Conference, UC Berkeley, Berkeley, CA (October 2019).
- Workshop, "Howard Hughes Medical Institute (HHMI)-UC STEM Faculty Learning Community, "Delivering on the UC Promise: Providing Equitable STEM Education Opportunities for California" UC Santa Barbara, Santa Barbara, CA. (November 2018).
- Faculty Fellowship, "2018 Executive Leadership Academy," Center for Studies in Higher Education, UC Berkeley, Berkeley, CA. (July 9-13, 2018).
- Workshop, "Howard Hughes Medical Institute (HHMI)-UC Faculty Learning Community "Transforming Teaching and Learning at the University of California: Clearing Institutional Barriers"," UC Santa Cruz, Santa Cruz, CA. (October 2017).
- Workshop, "HHMI-UC STEM Faculty Learning Community "Implementing Vision and Change at the University of California"," UC Riverside, Riverside, CA. (September 2016).
- Faculty Fellowship, "Advancing Women Leaders in Higher Education," Higher Education Resource Services (HERS) Leadership Institute, Denver, CO. (July 2014 August 2014).

- Workshop, "CIRM-JST Workshop on the Immunology of Stem Cells," California Institute for Regenerative Medicine, Kyoto. (August 2009 - September 2009).
- Seminar, "NIH Regional Seminar on Program Funding and Grants Administration," National Institutes of Health, Las Vegas, NV. (June 2009).
- Workshop, "CIRM Immunology Workshop," California Institute for Regenerative Medicine, San Francisco, CA. (February 2009).

Licensures and Certifications

Authorized Radiation User, UC Merced Environmental, Health and Safety.

IACUC Training, UC Merced Institutional Animal Care and Use Committee.

Professional Memberships

American Society for Bone and Mineral Research. (2017 - Present).

International Society for Experimental Hematology. (2013 - Present).

Member, American Association of Immunologists. (2006 - Present).

Member, Sigma Xi, The Scientific Research Society. (2000 - Present).

International Society for Stem Cell Research. (2009 - 2013).

Member, American Association for the Advancement of Science. (1993 - 2013).

Member, International Society of Development and Comparative Immunology. (2006 - 2007).

Awards and Honors

- Laboratory Travel Award, American Association of Immunologists. (meeting cancelled due to COVID). A competitive award for travel for myself and a trainee to present our work at the Annual Meeting of the AAI.
- Laboratory Travel Award, American Association of Immunologists. (2019). A competitive award for travel for myself and a trainee to present our work at the Annual Meeting of the AAI.
- Laboratory Travel Award, American Association of Immunologists. (2018). A competitive award for travel for myself and a trainee to present our work at the Annual Meeting of the AAI.
- Laboratory Travel Award, American Association of Immunologists. (2017). A competitive travel award for myself and a trainee to present our work at the Annual Meeting of the AAI
- Award for Excellence in Faculty Mentorship, UC Merced Academic Senate. (May 2015). Inaugural award for recognition for individual excellence in faculty mentorship
- Outstanding Advisor Award, Office of Student Life. (May 2014). selected for my service as an advisor for the Pilipino American Scientists and Engineers (PASE) student group
- Outstanding Faculty Award, UCM Office of Student Life Women's Programs. (May 2013). nominated and selected by students for excellence in mentoring, research and teaching
- Distinguished Graduate Mentoring and Teaching Award, UC Merced Senate. (May 2012). This Senate Award recognizes individual excellence in the mentoring and training of graduate students.
- Nominee, Distinguished Undergraduate Teaching Award, UC Merced Senate. (2011). This Senate Award is intended to encourage and recognize individual excellence in teaching at the undergraduate level.
- New Faculty Award, California Institute for Regenerative Medicine. (2008). One of 22 competitive research awards for junior faculty involved in stem cell research in the State of California.
- Junior Faculty Travel Award, American Association of Immunologists. (2007). A competitive award for travel to present oral and poster presentations at the Annual Meeting of the AAI.
- Junior Faculty Travel Award, Guava Technologies. (2007). An award for travel to present oral and poster presentations at the Annual Meeting of the AAI.
- Pew Scholar Biomedical Sciences Nominee, University of California, Merced. (2007).

Selected by the UC Merced faculty as the single campus representative to compete for this prestigious scholarship for innovative young investigators.

- Teaching Fellowship, Consortium for a Strong Minority Presence at Liberal Arts Colleges. (1999). One annual competitive award given to an individual seeking to learn about and gain teaching experience in a liberal arts setting.
- Young Investigator Award, XVI International Congress of the Transplantation Society. (1996). One of ten awards chosen from thousands of abstracts, presented to young scientists submitting abstracts to this society's international meetings.
- Citation of Merit Award, Association for Women in Science Educational Foundation. (1995). One of five awards out of approximately 100 applicants.
- Introduction to Biomedical Research Award, National Institute of Allergy and Infectious Disease (NIH). (1992). Travel funds and a visit to the NIH to attend seminars designed to introduce undergraduates to biomedical research
- Minority Participation in Graduate Education Summer Program, University of California, San Diego. (1991). Hands-on laboratory experience, housing and stipend for the summer.

RESEARCH

Book Chapters

Ciriza, J., Manilay, J. O. (2012). Stem Cell Therapies for Diabetes. InTech. Publisher - InTech. 978-953-51-0693-7. <u>Publication</u> <u>Website</u>

Books Reviewed

Cain, C., Conte, D., Garcia-Ojeda, M. E., Gomez Daglio, L., Johnson, J., Lau, E., Manilay, J. O., Phillips, J., Rogers, N., Stolberg, S., Swift, H., Dawson, M. (2008). What Systems Biology is (Not, Yet).. Science, 320, 1013-1014.

Commentaries/Prospectives/Review Articles

7. Donham, C. Millan, A. and Manilay, J.O. (2020). The Effects of Sclerostin on the Immune System. Current Osteoporosis Reports 2020 Feb;18(1):32-37. doi: 10.1007/s11914-020-00563-w.

6. Chicana, B, Donham, C. Millan, A. and Manilay, J.O. (2019). Wnt antagonists in hematopoietic and immune cell fate: implications for osteoporosis therapies. Current Osteoporosis Reports.2019 Mar 5. doi: 10.1007/s11914-019-00503-3.

5. Manilay, J. O., Zouali, M. (2014). Tight relationships between B lymphocytes and the skeletal system.. Trends Mol Med., 20, 405-412. Publisher - Trends Mol Med., (Current Status: Published; Date of Prior Status - June 30, 2016, Date Published - July 2014). Full text of this item is available

4. Cain, C. J., Manilay, J. O. (2013). Hematopoietic Stem Cell Fate Decisions are Regulated by Wnt Antagonists: Comparisons and Current Controversies. Experimental Hematology. (Current Status: Published; Date of Prior Status - June 30, 2014, Date Published - January 1, 2013, Date Accepted - September 5, 2012, Date Re-Submitted- August 7, 2012, Date Submitted - April 30, 2012).

3. Ciriza, J., Thompson, H., Petrosian, R., Manilay, J. O., Garcia-Ojeda, M. E., (2013). The Migration of Hematopoietic Progenitors from the Fetal Liver to the Fetal Bone Marrow: Lessons Learned and Possible Clinical Applications Experimental Hematology, 41, 411-423. Publisher - Experimental Hematology. (Current Status: Published; Date of Prior Status - June 30, 2014, Date Published - February 2013) (Epub ahead of print). Full text of this item is available

2. Thompson, H., Manilay, J. O. (2011). Embryonic stem cell-derived hematopoietic stem cells: challenges in development, differentiation, and immunogenicity. Thompson, H., Manilay, J. O. Current Topics in Medicinal Chemistry, 11, 1621-37. Publisher - Current Topics in Medicinal Chemistry. (Current Status: Published; Date Published - March 30, 2011, Date Accepted - January 8, 2010, Date Submitted - November 1, 2009). Full text of this item is available

1. Manilay, J. O., Sykes, M. (1998). Natural killer cells and their role in graft rejection. Manilay, J. O., Sykes, M. Current Opinion in Immunology, 10, 532-538. Publisher - Current Opinion in Immunology. (Current Status: Published; Date Published - 1998).

Journal Articles

Submitted

Chicana, B., Abbasizadeh, N., Burns, C. Taglinao, H., Spencer, J.A. and Manilay, J.O. Deletion of Vhl in Dmp1-expressing cells causes microenvironmental impairment of B cell lymphopoiesis. Under review at *eLife* (2021).

Published

29. Donham, C., Chicana, B. Robling, A.G., Mohamed, A., Elizaldi, S., Chi, M., Freeman, B., Millan, A., Murguesh, D., Hum, N.R., Sebastian, A., Loots, G.G., and Manilay, J.O. Sclerostin depletion induces inflammation in the bone marrow (2021). *Int. J. Mol. Sci.* 2021, 22(17), 9111; https://doi.org/10.3390/ijms22179111

28. Millan, A., Sindi, S. Manilay, J.O. Evidence for a prescribed NK cell Ly49 developmental pathway in mice (2021). J Immunol. 2021 Mar 15;206(6):1215-1227. doi: 10.4049/jimmunol.2000613.

27. Millan, A., Elizaldi, S., Lee, E., Aceves, J. Murugesh, D., Loots, G., Manilay, J. O. (2019). Sostdc1 regulates natural killer cell maturation and cytotoxicity. J Immunol. 2019 Apr 15;202(8):2296-2306. doi: 10.4049/jimmunol.1801157.

26. Chow, A., Mason, J., Coney, L., Bajwa, J., Zaslavsky, A., Pellman, Y., Garcia-Ojeda, M. E., Economides, A., Loots, G., Manilay, J. O. Sclerostin Deficiency Alters Peripheral B Lymphocyte Responses in Mice. BioRxiv https://www.biorxiv.org/content/early/2018/06/28/357772

25. Loots, G., Robling, A., Chang, J., Murugesh, D., Bajwa, J., Carlisle, C., Manilay, J. O., Wong, A., Yellowley, C., Genetos, D. Vhl deficiency in osteocytes produces high bone mass and hematopoietic defects. Bone. 2018 Nov;116:307-314. doi: 10.1016/j.bone.2018.08.022.

24. Yee, C., Manilay. J.O.*, Chang, J. C., Hum, N. R., Murugesh, D., Bajwa, J., Economides, A., Horan, D. J., Robling, A. G., Loots, G., (2018). Conditional Deletion of Sost in MSC-derived lineages Identifies Specific Cell Type Contributions to Bone Mass and B Cell Development. Journal of Bone and Mineral Research. *note- co-first author

23. Gravano, D. M., Al-Kuhlani, M., Davini, D., Sanders, P. D., Manilay, J. O., Hoyer, K. (2016). CD8+ T cells drive autoimmune hematopoietic stem cell dysfunction and bone marrow failure. Journal of autoimmunity, 75, 58-67. 0896-8411.

22. Collette, N. M., Yee, C. S., Hum, N. R., Murugesh, D. K., Christiansen, B. A., Xie, L., Economides, A. N., Manilay, J. O., Robling, A. G., Loots, G. (2016). Sostdc1 deficiency accelerates fracture healing by promoting the expansion of periosteal mesenchymal stem cells.. Bone, 88, 20-30. 8756-3282.

21. Thompson, H. L., van Rooijen, N., McLelland, B. T., Manilay, J. O. (2016). F4/80+ Host Macrophages Are a Barrier to Murine Embryonic Stem Cell-Derived Hematopoietic Progenitor Engraftment In Vivo. Journal of immunology research, 2016, 2414906. 2314-8861.

20. Ciriza, J., Caneda, C., McLelland, B., Manilay, J. O. (2015). Murine CD133+CD49flow/+ cells derived from ESCs differentiate into insulin producing cells in vivo. International Journal of Stem Cell Research & Therapy, 2(1), 004.

19. Thompson, H., McLelland, B., Manilay, J. O. (2014). Indirect Immune Recognition of Mouse Embryonic Stem Cell-Derived Hematopoietic Progenitors In Vitro. Experimental Hematology. 2014 May;42(5):347-359.e5. doi: 10.1016/j.exphem.2014.01.003.

18. Linder, G. E., Chuntova, P. D., McLelland, B. T., Ano, L., Obodo, U. C., Crider, N. J., Matthes, D. J., Garcia-Ojeda, M. E., Manilay, J. O., Chatterjea, D. (2013). Semaphorin 4A is dynamically regulated during thymocyte development in mice. Cellular Immunology, 281(2), 150-158.

17. Cain, C. J., Rueda, R., McLelland, B. T., Collette, N. M., Loots, G. G., Manilay, J. O. (2012). Absence of Sclerostin Adversely Affects B Cell Survival. Journal of Bone and Mineral Research, 27(7), 1451-1461.

16. McLelland, B. T., Gravano, D., Castillo, J., Montoy, S., Manilay, J. O. (2011). Enhanced Isolation of Adult Thymic Epithelial Cell Subsets for Multiparameter Flow Cytometry and Gene Expression Analysis. Journal of Immunological Methods, 367, 85-94.

15. Gravano, D. M., McLelland, B. T., Horiuchi, K., Manilay, J. O. (2010). ADAM17 Deletion in Thymic Epithelial Cells Alters Aire Expression without Affecting T Cell Developmental Progression. PLoS ONE, 5(10), e13528.

14. Gravano, D. M., Manilay, J. O. (2010). Inhibition of Proteolysis of Delta-like 1 Does Not Promote or Reduce T Cell Developmental Potential. Immunology and Cell Biology, 88(7), 746-753.

13. Nguyen, D., Sa, S., Pegan, J., Rich, B., Xiang, G., McCloskey, K. E., Manilay, J. O., Khine, M. (2009). Tunable shrink-induced honeycomb microwell arrays for uniform embryoid bodies. Lab Chip, 9(23), 3338-44.

12. Manilay, J. O., Anderson, A., Kang, C., Robey, E. (2005). Impairment of thymocyte development by dominant-negative Kuzbanian (ADAM-10) is rescued by the Notch ligand, Delta-1. Journal of Immunology, 174, 6732-6741.

11. Yang, L.-T., Nichols, J., Yao, C., Manilay, J. O., Robey, E., Weinmaster, G. (2005). Fringe glycosyltransferases modulate Notch 1 proteolysis induced by Delta 1 and Jagged 1. Molecular Biology of the Cell, 16, 927-942.

10. Zhao, Y., Ohdan, H., Manilay, J. O., Sykes, M. (2003). NK cell tolerance in mixed allogeneic chimeras. Journal of Immunology, 170(11), 5398-5405.

9. Manilay, J. O., Waneck, G., Sykes, M. (1999). Levels of Ly-49 receptor expression are determined by the frequency of interactions with MHC ligands: Evidence against receptor calibration to a "useful" level. Journal of Immunology, 163(5), 2628-2633.

8. Manilay, J. O., Waneck, G., Sykes, M. (1999). Altered expression of Ly-49 receptors on NK cells developing in mixed allgeneic bone marrow chimeras. International Immunology, 10(12), 1943-1955.

7. Sykes, M., Ohdan, H., Manilay, J. O., Wekerle, T., Yang, Y. (1998). Hematopoietic chimerism and tolerance of T cells, B cells, and NK cells. Transplantation Proceedings, 30(8), 4020.

6. Manilay, J. O., Pearson, D., Sergio, J., Swenson, K., Sykes, M. (1998). Intrathymic deletion of alloreactive T cells in mixed bone marrow chimeras prepared with a nonmyeloablative conditioning regimen. Transplantation, 66(1), 96-102.

5. Kim, J., Sette, A., Rodda, S., Southwood, S., Sieling, P., Mehra, V., Ohmen, J., Oliveros, J.L., Appella, E., Higashimoto, Y., Rea, T., Bloom, B., Modlin, R. (1997). Determinants of T cell reactivity to the Mycobacterium leprae GroES homologue. Journal of Immunology, 159(1), 335-43 (when published, my name was Jennifer L. Oliveros).

4. Zhao, Y., Fishman, J., Sergio, J., Oliveros, J.L., Pearson, D., Szot, G., Wilkinson, R., Arn, J., Sachs, D., Sykes, M. (1997). Immune restoration by fetal pig thymus grafts in T cell-depleted, thymectomized mice. Journal of Immunology, 158(4), 1641-9. (when published, my name was Jennifer L. Oliveros).

3. Borriello, F., Oliveros, J.L., Freeman, G., Nadler, L., Sharpe, A. (1995). Differential expression of alternate mB7-2 transcripts. Journal of Immunology, 155(12), 5490-7. (when published, my name was Jennifer L. Oliveros).

2. Sieling, P., Sakimura, L., Uyemura, K., Yamamura, M., Oliveros, J.L, Nickoloff, B., Rea, T., Modlin, R. (1995). IL-7 in the cell-mediated immune response to a human pathogen. Journal of Immunology, 154(6), 2775-83. (when published, my name was Jennifer L. Oliveros).

1. Sieling, P., Wang, X., Gately, M., Oliveros, J.L, McHugh, T., Barnes, P., Wolf, S., Golkar, L., Yamamura, M., Yogi, Y. (1994). IL-12 regulates T helper type 1 cytokine responses in human infectious disease. Journal of Immunology, 153(8), 3639-47. (when published, my name was Jennifer L. Oliveros).

Other Published Writings

Caneda, C., Ciriza, J., Manilay, J. O. (2012). Embryoid Body Formation is Required for Differentiation of Insulin- Producing Cell Clusters from Mouse Embryonic Stem Cells. In Proceedings of the National Conference of Undergraduate Research 2012. National Conference on Undergraduate Research, (pp. 497-504).

Published Abstracts

Burns C, Abbasizadeh N, Chicana B, Taglinao H, Manilay, JO and Spencer JA. "Characterization of the osteocyte-regulated microenvironmental influences on B cell development using two-photon imaging", [Abstract]. Virtual International Society of Experimental Hematology (ISEH) 2021Conference

Chicana B., Manilay J.O. Deletion of von-Hippel Lindau in Dmp1-expressing cells impairs B cell development [Abstract]. IMMUNOLOGY 2021 (AAI Annual Meeting) (virtual)

Chicana B., Manilay J.O. Deletion of von-Hippel Lindau in Dmp1-expressing cells impairs B cell development [Abstract]. American Society for Bone and Mineral Research 2020 Annual Meeting (virtual)

Donham, C., Loots, G, Manilay, J.O. Sclerostin depletion may induce inflammation in the bone marrow [Abstract]. American Society for Bone and Mineral Research 2020 Annual Meeting (virtual)

Chicana B., Manilay J.O. Deletion of von-Hippel Lindau in Dmp1-expressing cells impairs B cell development [Abstract]. IMMUNOLOGY 2020 (AAI Annual Meeting)

Millan, A. Sindi, S. Manilay, J.O. Evidence for a prescribed NK cell Ly49 developmental pathway in mice [Abstract]. IMMUNOLOGY 2020 (AAI Annual Meeting)

Chicana, B., Manilay, J.O. The role of the von-Hippel Lindau gene in osteocytes on B lymphocyte maturation and activation IMMUNOLOGY 2019 (AAI Annual Meeting).

Millan, A., Sindi, S., Manilay, J.O. Predicting Natural Killer Cell Behavior with Mathematical Models IMMUNOLOGY 2019 (AAI Annual Meeting).

Donham, C., Loots, G, Manilay, J.O. Sclerostin depletion may induce inflammation in the bone marrow IMMUNOLOGY 2019(AAI Annual Meeting).

Donham, C., Economides, A., Loots, G., Manilay, J. O. (2018). Effects of Sclerostin Depletion on Hematopoietic Stem Cells [Abstract]. Keystone Symposia - Novel Aspects of Bone Biology.

Millan, A., Elizaldi, S., Lee, E., Aceves, J., Murugesh, D., Loots, G., Manilay, J. O. (2018). Predicting NK cell behavior with mathematical models [Abstract]. 5th European Congress of Immunology (Amsterdam, Netherlands – September 2018).

Donham, C., Economides, A., Loots, G., Manilay, J. O. Effects of Sclerostin Depletion on Hematopoietic Stem Cells in the Bone Marrow and Spleen [Abstract]. International Society for Experimental Hematology Annual Meeting (August 2018).

Chicana, B., Genetos, D., Yellowley, C., Murugesh, D., Loots, G., Manilay, J. O. (2018). Loss of the von-Hippel Lindau gene in osteocytes alters B lymphocyte development and immune response [Abstract].

Millan, A., Elizaldi, S., Lee, E., Murugesh, D., Loots, G., Manilay, J. O. (2018). Sostdc1 regulates natural killer cell maturation and cytotoxicity [Abstract]. IMMUNOLOGY 2018 (AAI Annual Meeting).

Donham, C., Loots, G., Economides, A., Manilay, J. O. (2017). Effects of Sclerostin Depletion on Hematopoietic Stem Cells [Abstract]. American Society for Bone and Mineral Research 2017 Annual Meeting.

Millan, A., Elizaldi, S., Lee, E., Murugesh, D., Loots, G., Manilay, J. O. (2017). Natural killer cell development and maturation is regulated by Sostdc1 [Abstract]. IMMUNOLOGY 2017 (AAI Annual Meeting).

Manilay, J. O., Murugesh, D. K., Yee, C. S., Economides, A. N., Loots, G., (2017). Sclerostin expression in distinct osteolineage cell types differentially regulates hematopoietic stem cell and B lymphocyte development [Abstract]. IMMUNOLOGY 2017 (AAI Annual Meeting).

Loots, G., Bajwa, J., Murugesh, D. K., Yee, C. S., Economides, A. N., Manilay, J. O., (2017). Sclerostin expression in distinct osteolineage cell types differentially regulates hematopoietic stem cell and B lymphocyte development [Abstract]. Keystone Symposium on Hematopoiesis 2016.

Manilay et al. (2016). Osteocyte-specific ablation of the hypoxia inducible factor regulator VHL alters hematopoiesis in the bone marrow [Abstract]. 6th International Conference on Osteoimmunology: Interactions of the Immune and Skeletal Systems.

Loots, G., Bajwa, J., Murugesh, D. K., Yee, C. S., Economides, A. N., Manilay, J. O., (2016). Sclerostin expression in distinct osteolineage cell types differentially regulates hematopoietic stem cell and B lymphocyte development [Abstract]. 6th International Conference on Osteoimmunology: Interactions of the Immune and Skeletal Systems.

Manilay, J. O. (2014). Analysis of hematopoietic stem cell fate maintenance and function due to dysregulation of the Wnt signaling antagonist, sclerostin [Abstract]. 5th International Conference on Osteoimmunology:.

Thompson, H., McLelland, B., VanRooijen, N., Manilay, J. O. (2013). Host Macrophages Are A Barrier To The Engraftment of Embyronic Stem Cell-Derived Hematopoietic Progenitors [Abstract]. ISSCR Annual Meeting 2013.

Thompson, H., McLelland, B., VanRooijen, N., Manilay, J. O. (2013). Host Macrophages Are A Barrier To The Engraftment of Embyronic Stem Cell-Derived Hematopoietic Progenitors [Abstract]. AAI Annual Meeting 2013.

Pellman, Y., McLelland, B., Cain, C., Loots, G., Manilay, J. O. (2013). Analysis of hematopoietic stem cell fate and immunity in the absence of the Wnt antagonist, sclerostin [Abstract]. UC Santa Cruz Stem Cells and Aging Conference.

Cain, C., Pellman, Y., McLelland, B., Loots, G. G., Manilay, J. O. (2012). Analyses of Hematopoietic Stem Cell Function and B Cell Responses in Mice that are Deficient for the Wnt Antagonist, Sclerostin [Abstract]. ThymUS 2012.

Murillo, V., Thompson, H., McLelland, B. T., Manilay, J. O. (2012). Determination of Cytokine Receptor Profiles for the Enhancement of In Vitro Differentiation of Embyronic Stem Cell-Derived Hematopoietic Progenitors [Abstract]. SACNAS National Conference (Seattle, WA).

Thompson, H., McLelland, B. T., Manilay, J. O. (2012). Host F4/80+ Splenic Macrophages are Increased after Transplantation of Allogeneic Embryonic Stem Cell-Derived Hematopoietic Progenitors [Abstract]. American Association of Immunologists. (Boston, MA).

Cain, C. J., Rueda, R., McLelland, B. T., Collette, N. M., Loots, G. G., Manilay, J. O. (2011). Absence of the Wnt Antagonist Sclerostin Adversely Affects B Cell Development in the Bone Marrow Niche [Abstract]. American Society for Hematology.

Thompson, H., McLelland, B. T., Manilay, J. O. Host F4/80+ Splenic Macrophages are Increased after Transplantation of Allogeneic Embryonic Stem Cell-Derived Hematopoietic Progenitors [Abstract]. Annual Gene Therapy Symposium for Heart, Lung and Blood Disease.

Thompson, H., McLelland, B. T., Manilay, J. O. The Possible Role of Innate Immunity in Rejection of Embryonic Stem Cell Derived Hematopoietic Progenitors. [Abstract]. Annual CIRM Grantee Meeting. (San Francisco, CA).

Cain, C. J., Loots, G. G., Rueda, R., Manilay, J. O. (2010). Differentiation of Hematopoietic Cell Lineages is Altered in the Absence of Sclerostin [Abstract]. American Society for Bone and Mineral Research Annual Meeting. (Toronto, Ontario, Canada).

Cain, C. J., Loots, G. G., Rueda, R., Manilay, J. O. (2010). Increased Osteoblast Activity In Sclerostin Knockout Mice Does Not Augment Hematopoietic Stem Cell Renewal. [Abstract]. ISSCR Annual Meeting. (San Francisco, CA).

Thompson, H., Manilay, J. O. (2010). Predicting the Immunogenicity of Embryonic Stem Cell Derived Hematopoietic Progenitors in the Adult Host [Abstract]. ISSCR Annual Meeting. (San Francisco, CA).

Thompson, H., Manilay, J. O. (2010). Predicting the Immunogenicity of Embryonic Stem Cell Derived Hematopoietic Progenitors in the Adult Host [Abstract]. Annual CIRM Grantee Meeting. (San Francisco, CA).

Gravano, D. M., Manilay, J. O. (2010). Thymic Epithelial Cell-Specific Deletion of the Metalloprotease ADAM17 Results in Reduced Expression of Aire [Abstract]. ThymOZ 2010 International Workshop on T Lymphocytes. (Heron Island, Australia).

Phillips, J., Manilay, J. O., Colvin, M. E. (2010). Analytic Parameter Fitting in Stochastic Stem Cell Models [Abstract]. Annual Meeting of the Biophysical Society. (San Francisco, CA).

Thompson, H., Manilay, J. O. (2009). Predicting the Immunogenicity of Embryonic Stem Cell Derived Hematopoietic Progenitors in the Adult Host [Abstract]. Annual Gene Therapy Symposium for Heart, Lung and Blood Disease. (Sonoma, CA).

Cain, C. J., Manilay, J. O. (2009). Osteoblast Differentiation Detrimentally Affects Hematopoietic Differentiation. [Abstract]. CSHL Stem Cell Biology Meeting. (Cold Springs Harbor, NY).

Cain, C. J., Thompson, H., Arcayena, S., McLelland, B., Castillo, J., Manilay, J. O. (2009). Improving The Production Of ESC-Derived Hematopoietic Stem Cells Using A "Niche In A Dish" [Abstract]. ISSCR Annual Meeting. (Barcelona, Spain).

Gravano, D., Manilay, J. O. (2009). ADAM Protease Mediated Cleavage Of Delta-Like-1 Regulates The Degree Of Notch Signaling During T Cell Development [Abstract]. AAI Annual Meeting. (Seattle, WA).

McLelland, B., Castillo, J., Montoy, S., Manilay, J. O. (2008). Coordinated Expression of Notch Pathway Genes in Thymic Epithelial Cells [Abstract]. ThymUS 2008 International Conference on Lymphopoiesis, T Cell Differentiation, and Immune Reconstitution. (San Juan, Puerto Rico).

McLelland, B., Garcia-Ojeda, M., Manilay, J. O. (2008). CXCR6 Deficiency Influences Cell Fate Decisions in an Atypical Lymphocyte Progenitor [Abstract]. ThymUS 2008 International Conference on Lymphopoiesis, T Cell Differentiation and Immune Reconstitution. (San Juan, Puerto Rico).

McLelland, B., Castillo, J., Montoy, S., Manilay, J. O. (2008). Analysis of Notch Pathway Gene Expression in Purified Mouse Thymic Epithelial Cells [Abstract]. California Institute for Regenerative Medicine (CIRM) Grantee Meeting.

Gravano, D., Manilay, J. O. (2008). Cleavage of the Notch Ligand delta-1 in the Regulation of T Cell Development [Abstract]. American Association of Immunologists (AAI) Annual Meeting. (San Diego, CA).

Gravano, D., Manilay, J. O. (2008). Cleavage of the Notch Ligand delta-1 in the Regulation of T Cell Development [Abstract]. Midwinter Conference of Immunologists. (Asilomar, CA).

Manilay, J. O., Colvin, M. (2007). A Probabilistic Model of Lymphocyte Fate Decisions [Abstract]. AAI Annual Meeting. (Miami Beach, FL).

Pegan, J., Meyer, M., Manilay, J. O., Khine, M. (2007). Quantitative Single-Cell Analysis of Receptor Dynamics and Chemotactic Response on a Chip [Abstract]. Biomedical Engineering Society Fall Meeting. (Los Angeles, CA). Nguyen, D., Pegan, J., Xia, B., Grimes, A., Manilay, J. O., Khine, M. (2007). Shrinky-Dink Gradient Denerator for Single-Cell Chemotactic Quantification [Abstract]. UC Bioengineering Symposium. (Riverside, CA).

Manilay, J. O., McLelland, B. (2007). Preferential Chemotaxis and Fugetaxis of CD4- CD8- Thymocytes in Response to CXCL16 [Abstract]. AAI Annual Meeting. (Miami Beach, FL)).

Manilay, J. O. (2006). A Quantitative and System Biology Approach to Study Cell Fate Decisions in the Immune System [Abstract]. Gene Regulation and Signaling in the Immune System. (Cold Spring Harbor, NY).

Manilay, J. O., Anderson, A., Robey, E. (2005). The Role of Kuzbanian in Notch signaling and T cell development [Abstract]. International Congress of Immunology. (Montreal, Quebec, Canada).

Manilay, J. O., Anderson, A., Robey, E. (2004). The Role of Kuzbanian in Notch signaling and T cell development [Abstract]. T Cell Development, Keystone Symposia. (Banff Springs, Alberta, Canada).

Manilay, J. O., Anderson, A., Robey, E. (2004). The Role of Kuzbanian in Notch signaling and T cell development [Abstract]. ThymUS 2004 International Conference on Lymphopoiesis, T Cell Differentiation, and Immune Reconstitution. (San Juan, Puerto Rico).

Manilay, J. O., Sykes, M. (1998). NK cell reactivity to host and donor antigens in mixed allogeneic bone marrow chimeras [Abstract]. Experimental Biology '98. (San Francisco, CA).

Manilay, J. O., Sykes, M. (1997). Education of natural killer cells for self/non-self recognition [Abstract]. AAAAI/AAI/CIS Joint Meeting. (Current Status: Published; Date Published - 1997) (San Francisco, CA).

Manilay, J. O., Sykes, M. (1996). Tolerance to transplantation antigens occurs through a deletional mechanism in mixed bone marrow chimeras prepared with a non-myeloablative conditioning regimen [Abstract]. XVI International Congress of the Transplantation Society (Barcelona, Spain).

Presentations Given

- Abbasizadeh N (Presenter), Burns C, Chicana B, Taglinao H, Manilay, JO (Author) and Spencer JA. International Society of Experimental Hematology (ISEH) 2021, "Intravital 2-Photon Microscopy of the Bone Marrow", virtual (August 2021)
- Chicana, B. (Presenter), Manilay, J. O. (Author), IMMUNOLOGY 2021 (American Association of Immunologists), "Deletion of von-Hippel Lindau in Dmp1-expressing cells impairs B cell development," virtual. (May 2021).
- Manilay, J. O., "Effects of altered bone homeostasis on immune cell development in mice implications for treatments for osteoporosis in humans," Dept. of Biology, California State University San Marcos. (November 2020).
- Donham, C. (Presenter), Loots, G. (Author), Manilay, J. O. (Author), American Society for Bone and Mineral Research Annual Meeting, "Sclerostin depletion may induce inflammation in the bone marrow," virtual. (September 2020).
- Millan, A. (Presenter), Sindi, S. (Author), Manilay, J.O. (Author). IMMUNOLOGY 2020 (American Association of Immunologists), "Evidence for a prescribed NK cell Ly49 developmental pathway in mice". Honolulu, HI (May 2020) *note: selected for presentation, but meeting was cancelled due to COVID-19*

- Millan, A. (Presenter), Sindi, S. (Author), Manilay, J.O. (Author). IMMUNOLOGY 2019 (American Association of Immunologists), "Predicting Natural Killer Cell Behavior with Mathematical Models". San Diego, CA (May 2019).
- Donham. C (Presenter), Loots, G (Author) and Manilay, J.O (Author). IMMUNOLOGY 2019 (American Association of Immunologists), "Sclerostin depletion may induce inflammation in the bone marrow". San Diego, CA (May 2019).
- Manilay, J.O. UC Merced MCB Department Seminar. "The effects of sclerostin on hematopoietic stem cells" (Dec. 2018).
- Manilay, J.O. Stem Cell Center Seminar, "Understanding hematopoietic stem cells and their differentiation across the lifespan (Nov. 2018), Tzu Chi University, Hualien, Taiwan
- Millan, A. (Presenter), Elizaldi, S. (Author), Lee, E. (Author), Murugesh, D. (Author), Loots, G. (Author), Manilay, J. O. (Author), IMMUNOLOGY 2018 (American Association of Immunologists), "Natural killer cell development and maturation is regulated by Sostdc1," Washington, DC. (May 2017).
- Manilay, J. O., Beaster-Jones, L., Garcia-Ojeda, M. E., UC Merced "Assessment as Research" Symposium, "Building Capacity for Inclusive Excellence Curriculum Strategies in the Biological Sciences," UC Merced. (March 2017).
- Loots, G. (Author), Bajwa, J. (Author), Murugesh, D. (Author), Yee, C. S. (Author), Economides, A. (Author), Manilay, J. O. (Presenter & Author), 6th International Conference on Osteoimmunology: Interactions of the Immune and Skeletal Systems, "Sclerostin expression in distinct osteolineage cell types differentially regulates hematopoietic stem cell and B lymphocyte development," Chania, Crete, Greece. (June 2016).
- Manilay, J. O., American Association for Laboratory Animal Science District 8 Annual Meeting, "The role of sclerostin on hematopoietic stem cell development and immunity," Panel: Saving Lives: Bench to Bedside, South San Francisco, CA. (April 2014).
- Thompson, H. (Presenter), McLelland, B. (Author), Van Roojien, N. (provided reagents), Manilay, J. O. (Author), ISSCR Annual Meeting 2013, "Host macrophages are a barrier to the engraftment of embryonic stem cell-derived hematopoietic progenitors," Panel: Immunology and Stem Cells, Boston, MA. (June 2013).
- Pellman, Y. (Author), McLelland, B. (Author), Cain, C. (Author), Loots, G. (Author), Manilay, J. O. (Presenter & Author), UC Santa Cruz Stem Cells and Aging Symposium, "Analysis of hematopoietic stem cell fate and immunity in the absence of the Wnt antagonist, sclerostin," Panel: Tissue Specific Stem Cells, Santa Cruz, CA. (May 2013).
- Manilay, J. O., Basics of Stem Cells and Progenitors Course, "Immunogenicity of Stem Cells: Implications on Regenerative Medicine," UC Davis Stem Cell Training Program, Davis, CA. (May 2013).
- Manilay, J. O., Dept. of Microbiology and Immunology Lecture Series, "Evidence of Innate Immunity-Mediated Recognition of Embryonic Stem Cell-Derived Hematopoietic Progenitor Cells," Cornell University School of Veterinary Medicine. (April 2012).
- Manilay, J. O., Department of Chemistry Lecture Series, "Investigating Cellular Crosstalk Between Bone and Blood Cells in the Hematopoietic Stem Cell Niche," University of the Pacific. (March 2012).
- Manilay, J. O. (Author), Cain, C. J. (Presenter & Author), Rueda, R. (Author), McLelland, B. T. (Author), Collette, N. (Author), Loots, G. G. (Author), American Society of Hematology Annual Meeting, "Absence of the Wnt Antagonist Sclerostin Adversely Affects B Cell Development in the Bone Marrow Niche.," Panel: Hematopoiesis and Stem Cells Microenvironment, Cell Adhesion and Stromal Stem Cells: Regulators of the Stem Cell Niche, San Diego, CA. (December 2011).
- Manilay, J. O., Thompson, H. (Presenter & Author), McLelland, B. T. (Author), Annual Gene Therapy Symposium for Heart, Lung and Blood Disease, "Host F4/80+ Splenic Macrophages are Increased after Transplantation of Allogeneic Embryonic Stem Cell-Derived Hematopoietic Progenitors," Sonoma, CA. (November 2011).
- Manilay, J. O., "Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," Cell and Molecular Biology Department, San Diego State University, (October 2011).
- Manilay, J. O., "Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," California State University San Marcos. (October 2011).
- Manilay, J. O., "Embryonic stem cell-derived hematopoietic stem cells: challenges in development, differentiation, and immunogenicity," Children's Hospital Oakland Research Institute (CHORI), Children's Hospital Oakland Research Institute (CHORI), Oakland, CA. (September 2011).
- Manilay, J. O., Sacramento Valley American Association for Animal Laboratory Science Summer Lecture Series, "Stem Cell Research and Technologies," UC Davis Mouse Biology Program. (August 2011).

- Manilay, J. O., CIRM Bridges Trainee Annual Meeting, "Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," Burlingame, CA. (July 2011).
- Manilay, J. O., UC Davis Stem Cell Training Program, "Immunology and Regenerative Medicine," University of California, Davis. (April 2011).
- Manilay, J. O., Biosciences and Biotechnology Division Seminar Series, "Investigating Cellular Crosstalk Between Bone and Blood Cells in the Hematopoietic Stem Cell Niche," Lawrence Livermore National Laboratory. (March 2011).
- Manilay, J. O. (Presenter & Author), Thompson, H. (Author), Cain, C. (Author), McLelland, B. (Author), BIT Science's Regenerative Medicine and Stem Cells, "Developmental and Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," Panel: Stem Cell Differentiation and Transplantation, Shanghai, China. invited talk. (December 2010).
- Cain, C. J. (Presenter), Loots, G. G. (Author), Rueda, R. (Author), Manilay, J. O. (Author), American Society for Bone and Mineral Research, "Differentiation of Hematopoietic Cell Lineages is Altered in the Absence of Sclerostin," Toronto, Ontario, Canada. (October 2010).
- Manilay, J. O., SACNAS, "Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," CIRM, Panel: Stem Cells in Science and Medicine, Anaheim, CA. (October 2010).
- Manilay, J. O., Genomics, Genetics and Bioinformatics Seminar Series, "Developmental and Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," UC Riverside, Riverside, CA. (April 2010).
- Thompson, H. (Presenter), Manilay, J. O. (Author), Annual CIRM Grantee Meeting, "Predicting the Immunogenicity of Embryonic Stem Cell Derived Hematopoietic Progenitors in the Adult Host," San Francisco, CA. (March 2010).
- Gravano, D. (Presenter), Manilay, J. O. (Author), ThymOZ 2010 International Workshop on T Lymphocytes, "Thymic Epithelial Cell-Specific Deletion of the Metalloprotease ADAM17 Results in Reduced Expression of Aire," Heron Island, Australia. (March 2010).
- Manilay, J. O., Biology Colloquium Seminar, "Investigating Stem Cell Niches To Improve Stem Cell Therapies," California State University, Fresno, CA. (February 2010).
- Thompson, H. (Presenter), Manilay, J. O. (Author), Annual Gene Therapy Symposium for Heart, Lung and Blood Diseases, "Predicting the Immunogenicity of Embryonic Stem Cell Derived Hematopoietic Progenitors in the Adult Host," Sonoma, California. (November 2009).
- Manilay, J. O., CIRM/JST Immunology for Stem Cell Therapy Workshop, "Immunogenicity and Developmental Potential of ESC-Derived Hematopoietic Progenitors," CIRM/JST, Kyoto, Japan. (August 2009).
- Manilay, J. O., CIRM Basics of Stem and Progenitor Cells Seminar, "Immunology and Stem Cell Therapies," UC Davis, Davis, CA. (June 2009).
- Manilay, J. O., Biology Colloquium Seminar, "Developmental and Immunological Challenges to Successful Embryonic Stem Cell-Derived Therapies," California State University, Stanislaus, CA. (May 2009).
- Manilay, J. O., ThymUS 2008 International Conference on Lymphopoiesis, T Cell Differentiation, and Immune Reconstitution, "CXCR6 Deficiency Influences Cell Fate Decisions in an Atypical Lymphocyte Progenitor," San Juan, Puerto Rico. (November 2008).
- Manilay, J. O., Bortree Lecture Series, "Potential Roles of CXCR6 and CXCL16 in Early T Cell Development," Dept. of Veterinary and Biomedical Sciences, The Pennsylvania State University, State College, PA. (January 2008).
- Manilay, J. O., American Association of Immunologists Annual Meeting, Block Symposium on Regulation of Immune System Development, "Preferential Chemotaxis and Fugetaxis of CD4–CD8– Thymocytes in Response to CXCL16," American Association of Immunologists, Miami Beach, FL. (May 2007).
- Manilay, J. O., Department of Biology Seminar, "A Possible Link Between ADAM-10, Cell Migration And Commitment To The T Cell Lineage," Department of Biology, University of the Pacific, Stockton, CA. (January 2007).
- Manilay, J. O., Quanitative and Systems Biology Seminar, "New Approaches to Study T Cell Development and T Lineage Fate Decisions," University of California, Merced, Merced, CA. (April 2006).
- Manilay, J. O., "Studying the Immune System with Systems Biology," Mercy Medical Center, Merced, CA. (April 2006).
- Manilay, J. O., Department of Biology, "The Role of Kuzbanian in Notch Signaling and T Cell Development," St. Mary's College, Moraga, CA. (2004).
- Manilay, J. O., Immunology Seminar, "The Role of Kuzbanian in Notch Signaling and T Cell Development," Oklahoma Medical Research Foundation, Oklahoma City, OK. (2004).

- Manilay, J. O., Notch Signaling Mini-Symposium, "The Role of Kuzbanian in Notch signaling and T cell development," International Congress of Immunology, Montreal, Quebec, Canada. (2004).
- Manilay, J. O., T Cell Development Keystone Symposia, "The Role of Kuzbanian in Notch signaling and T Cell Development," Banff Springs, Alberta, Canada. (2004).
- Manilay, J. O., ThymUS 2004 International Conference on Lymphopoiesis, T Cell Differentiation, and Immune Reconstitution, "The Role of Kuzbanian in Notch signaling and T cell Development," San Juan, Puerto Rico. (November 2004).
- Manilay, J. O., School of Natural Sciences, "The Role of Kuzbanian in Notch Signaling and T Cell Development," UC Merced, Merced, CA. (August 2004).

Contracts, Grants and Sponsored Research

Grants

- Manilay, Jennifer Oliveros (Principal Investigator), "Defining effects of sclerostin depletion on age-associated bone marrow inflammation," NIH National Institutes of Health, \$2,219,162.00 (April 2022 March 2027). *Submitted, Currently Under Review.*
- Spencer, Joel (Principal Investigator), Manilay, Jennifer Oliveros (Collaborator), "Development of novel imaging techniques to study thymic regeneration after hematopoietic cell transplantation," NIH - National Institutes of Health, \$3,729,691.00 (September 2021 - August 2026). *Revising to resubmit.*
- Manilay, Jennifer Oliveros, Spencer, Joel, " Generation of Novel Osteolineage VHL Conditional Knockout Mice to Study B Cell Microenvironments," NIH National Institutes of Health, \$ 412,149.00 (March 2021 February 2023).
- Manilay, Jennifer Oliveros, Spencer, Joel, "Anatomical and Molecular Investigation of Microenvironments that Influence B Lymphocytes," NIH National Institutes of Health, \$ 450,192. (July 2020 June 2022).
- Manilay, Jennifer Oliveros, Beaster-Jones, Laura, Garcia-Ojeda, Marcos Esteban, "Building Capacity for Inclusive Excellence in the Biological Sciences," Howard Hughes Medical Institute, \$1,000,000.00. (September 2018 August 2023).
- Manilay, Jennifer Oliveros (Principal Investigator), Hernandez, Samantha (Other), "ASUCM Academic Affairs Fellowship," Associated Student Union UC Merced, \$1,000.00. (August 2018 - May 2019). We declined the award because the student transferred from UC Merced.
- Manilay, Jennifer Oliveros (Principal Investigator), Chi, Michael (Other), "ASUCM Academic Affairs Fellowship," Associated Student Union UC Merced, \$1,000.00. (August 2018 - May 2019).
- Manilay, Jennifer Oliveros (Principal Investigator), "Regulation of hematopoiesis by sclerostin in specific niche cells in vivo," NIH National Institutes of Health, \$101,376.00. (September 2017 December 2018).
- Manilay, Jennifer Oliveros (Principal Investigator), "Academic Research Enhancement Award (Parent R15): Analysis of stem cell fate in the absence of the Wnt antagonist, sclerostin," NIH - National Institutes of Health, \$457,000.00. (February 2016 - December 2018).
- Manilay, Jennifer Oliveros (Principal Investigator), "Investigating the Role of VHL-Deficiency on B Cell Development," UC Merced Committee on Research, \$5,000.00. (July 2017 June 2018).
- Manilay, Jennifer Oliveros (Principal Investigator), Mohamed, Asmaa (Other), "ASUCM Academic Affairs Fellowship," Associated Student Union UC Merced, \$1,000.00. (August 2017 May 2018).
- Manilay, Jennifer Oliveros (Principal Investigator), "Functional analysis of Sostdc1's role in natural killer cell development for cancer immunotherapy," UC Cancer Research Coordinating Committee, \$55,000.00. (December 2014 June 2016).
- Manilay, Jennifer Oliveros (Co-Principal Investigator), Sindi, Suzanne (Co-Principal Investigator), "Interdisciplinary Workshop on Creating and Testing Mathematical Models to Understand Stem Cell Fate Decisions," UC Merced Graduate Division, \$3,000.00. (April 2015 - May 2016).
- Manilay, Jennifer Oliveros (Principal Investigator), Chow, Arthur (Other), "ASUCM Academic Affairs Fellowship," Associated Student Union UC Merced, \$1,000.00. (August 2014 - May 2015).
- Manilay, Jennifer Oliveros (Co-Principal Investigator), Hoyer, Katrina (Co-Principal Investigator), "Lymphocyte-mediated alterations to bone marrow homeostasis and hematopoiesis," UC Merced Health Sciences Research Institute Biomedical Seed Grant, \$2,500.00. (March 2014 March 2015).

- Manilay, Jennifer Oliveros (Principal Investigator), Tarantal, Alice (Co-Principal Investigator), "Determination of age related effects on mesenchymal stem/stromal cell (MSC) function on hematopoietic stem cell (HSC) engraftment and B cell regeneration in the rhesus monkey, Macaca mulatta," California National Primate Research Center Pilot Project Program, \$20,000.00. (June 2013 June 2014).
- Manilay, Jennifer Oliveros (Principal Investigator), "Analysis of hematopoietic stem cell maintenance and function by dysregulation of the Wnt antagonist, sclerostin," UC Cancer Research Coordinating Committee, \$52,500.00. (July 2013 June 2014).
- Manilay, Jennifer Oliveros (Principal Investigator), "Investigating the Effects of Bone Disease on Immune Cell Development and Response," UCM Graduate and Research Council, \$4,676.00. (June 2013 June 2014).
- Manilay, Jennifer Oliveros (Principal Investigator), "Enhancing Survival of Embryonic Stem -Cell Derived Grafts by Induction of Immunological Tolerance," California Institute for Regenerative Medicine new Faculty Research Award, \$1,580,000.00. (June 2008 - May 2013).
- Manilay, Jennifer Oliveros (Principal Investigator), Choi, Jinah (Co-Principal Investigator), McCloskey, Kara Elizabeth (Co-Principal Investigator), "Support for the Shared Applied Biosystems 7300 Real-Time PCR System for Quantitative PCR," UCM Health Sciences Research Institute, \$2,500.00. (June 2011).
- Manilay, Jennifer Oliveros (Principal Investigator), "Analysis of Notch Signaling in the Young and Aged Thymus," UC Merced Graduate and Research Council Faculty Research Award, \$5,000.00. (2008 2009).
- Manilay, Jennifer Oliveros (Principal Investigator), "A Quantitative Systems Biology Approach to Study Cell Fate Decisions in the Immune System," UC Merced School of Natural Sciences Research Award, \$5,000.00. (2007 2008).
- Manilay, Jennifer Oliveros (Principal Investigator), "Analysis of CXCR6 in T Cell Development," UC Cancer Research Coordinating Committee Research Grant, \$50,000.00. (2007 2008).
- Manilay, Jennifer Oliveros (Co-Principal Investigator), Meyer, Matthew P (Co-Principal Investigator), Khine, Michelle (Co-Principal Investigator), "Quantitative Single-Cell Measurements of CCR6 Expression, Internalization Dynamics, and Chemotactic Response in HepG2 Cells Using Lab-on-a-Chip Techniques," UC Merced Graduate and Research Council Faculty Research Award, \$9,190.00. (2007 - 2008).
- Manilay, Jennifer Oliveros (Principal Investigator), "BioRad Chemidoc XRS Molecular Imaging System," UC Merced Graduate and Research Council Shared Equipment Award, \$7,200.00. (2006 2007).
- Manilay, Jennifer Oliveros (Principal Investigator), "Faculty Development Award," UC Merced Provost and CAPRA, \$18,000.00. (2006 2007).
- Manilay, Jennifer Oliveros (Principal Investigator), "Regulation of Thymocyte Cell Migration by the ADAM-10 Protease," UC Merced Graduate Research Council Faculty Research Award, \$2,500.00. (2006 2007).
- Manilay, Jennifer Oliveros (Principal Investigator), Postdoctoral National Research Service Award. (2002 2005).
- Manilay, Jennifer Oliveros (Principal Investigator), "Teaching Fellowship," Consortium for a Strong Minority Presence at Liberal Arts Colleges, Minority Scholar-in-Residence Program (Wellesley College). (1999 2000).
- Manilay, Jennifer Oliveros (Principal Investigator), "Minority Predoctoral Fellowship Program," NIH National Institutes of Health. (1997 1999).
- Manilay, Jennifer Oliveros (Other), Handin, Robert (Other), "Training Program in Molecular Hematology," National Heart, Lung, and Blood Institute. (1996 1997).
- Manilay, Jennifer Oliveros (Principal Investigator), Sigma Xi, The Scientific Research Society. (1996).
- Manilay, Jennifer Oliveros (Principal Investigator), "Minority Graduate Student Fellowship," NSF National Science Foundation. (1993 1996).

Subcontract

- Manilay, Jennifer Oliveros, "Characterizing Host-Pathogen Immunity-Gut-Brain Interactions," UC Lawrence Livermore Natl Lab, \$276,235.00. (March 2016 February 2019).
- Manilay, Jennifer Oliveros, "Evaluating Efficacy of Novel Therapeutics for Mitigating Post-traumatic Osteoarthritis," UC Lawrence Livermore Natl Lab, \$138,519.00. (September 2014 August 2017).

Research in Progress

- "Molecular and Cellular Crosstalk in the Hematopoietic Stem Cell Niche" (On-Going) Analysis of the mechanisms by which HSCs and osteoblasts as well as other bone marrow stromal cells interact to affect each other's development
- "Osteoimmunology: Interactions between the Skeletal and Immune Systems" (On-Going) Investigation of how changes in bone microenvironments affect B lymphocyte development and function

TEACHING

Teaching Experience

University of California, Merced

Fall, 2021

BIO 195, Upper Div Undergrad Research. (Fall 2021)QSB 292, QSB Group Meeting. (Fall 2021)QSB 295, Graduate Research. (Fall 2021)

Spring, 2021

BIO 195, Upper Div Undergrad Research. (Spring 2021)QSB 292, QSB Group Meeting. (Spring 2021)QSB 293, QSB Journal Club. (Spring 2021)QSB 295, Graduate Research. (Spring 2021)

Fall, 2020

BIO 1, Contemporary Biology. (Fall 2020)

BIO 195, Upper Div Undergrad Research. (Fall 2020)

QSB 292, QSB Group Meeting. (Fall 2020)

QSB 295, Graduate Research. (Fall 2020)

Spring, 2020

BIO 150, Embryos, Genes and Development (Spring 2020) – interim IOR/substitute instructor BIO 195, Upper Div Undergrad Research. (Spring 2020) QSB 292, QSB Group Meeting. (Spring 2020) QSB 295, Graduate Research. (Spring 2020)

Fall, 2019

BIO 1, Contemporary Biology. (Fall 2019)BIO 195, Upper Div Undergrad Research. (Fall 2019)QSB 292, QSB Group Meeting. (Fall 2019)

QSB 295, Graduate Research. (Fall 2019)

Spring, 2019

BIO 1, Contemporary Biology. (Spring 2019)

BIO 195, Upper Div Undergrad Research. (Spring 2019)

QSB 292, QSB Group Meeting. (Spring 2019)

QSB 295, Graduate Research. (Spring 2019)

Fall, 2018

BIO 195, Upper Div Undergrad Research. (Spring 2018)

QSB 292, QSB Group Meeting. (Spring 2018)

QSB 295, Graduate Research. (Spring 2018)

Spring, 2018

BIO 151, Molecular Immunology. (Spring 2018)BIO 195, Upper Div Undergrad Research. (Spring 2018)QSB 292, QSB Group Meeting. (Spring 2018)QSB 295, Graduate Research. (Spring 2018)

Fall, 2017

BIO 1, Contemporary Biology. (Fall 2017)BIO 195, Upper Div Undergrad Research. (Fall 2017)QSB 292, QSB Group Meeting. (Fall 2017)QSB 295, Graduate Research. (Fall 2017)

Spring, 2017

BIO 1, Contemporary Biology. (Spring 2017)
BIO 195, Upper Div Undergrad Research. (Spring 2017)
QSB 292, QSB Group Meeting. (Spring 2017)
QSB 293, QSB Journal Club. (Spring 2017)
QSB 295, Graduate Research. (Spring 2017)

Fall, 2016

BIO 1, Contemporary Biology. (Fall 2016)QSB 292, QSB Group Meeting. (Fall 2016)QSB 295, Graduate Research. (Fall 2016)

Spring, 2016

BIO 1, Contemporary Biology. (Spring 2016)BIO 195, Upper Div Undergrad Research. (Spring 2016)QSB 292, QSB Group Meeting. (Spring 2016)QSB 295, Graduate Research. (Spring 2016)

Fall, 2015

BIO 110, The Cell. (Fall 2015)BIO 195, Upper Div Undergrad Research. (Fall 2015)QSB 292, QSB Group Meeting. (Fall 2015)QSB 295, Graduate Research. (Fall 2015)

Spring, 2015

BIO 154, Developmental Immunology. (Spring 2015)BIO 195, Upper Div Undergrad Research. (Spring 2015)

Fall, 2014

BIO 195, Upper Div Undergrad Research. (Fall 2014)

Spring, 2014

BIO 110, The Cell. (Spring 2014)BIO 150, Embryos, Genes, and Develop. (Spring 2014)

BIO 195, Upper Division Undergrad Research. (Spring 2014)

QSB 292, QSB Group Meeting. (Spring 2014)

QSB 293, QSB Journal Club. (Spring 2014)

QSB 295, Graduate Research. (Spring 2014)

QSB 298, Directed Group Study. (Spring 2014)

Fall, 2013

BIO 195, Upper Div Undergrad Research. (Fall 2013)

QSB 292, QSB Group Meeting. (Fall 2013)

QSB 293, QSB Journal Club. (Fall 2013)

QSB 295, Graduate Research. (Fall 2013)

Summer, 2013

BIO 195, Upper Division Undergrad Research. (Summer 2013)

Spring, 2013

BIO 150, Embryos, Genes, and Develop. (Spring 2013) BIO 195, Upper Div Undergrad Research. (Spring 2013)

QSB 292, QSB Group Meeting. (Spring 2013)

QSB 293, QSB Journal Club. (Spring 2013)

QSB 295, Graduate Research. (Spring 2013)

Fall, 2012

BIO 195, Upper Div Undergrad Research. (Fall 2012)
QSB 291, QSB Seminar. (Fall 2012)
QSB 292, QSB Group Meeting. (Fall 2012)
QSB 293, QSB Journal Club. (Fall 2012)
QSB 295, Graduate Research. (Fall 2012)

Spring, 2012

BIO 150, Embryos, Genes, and Development. (Spring 2012)

BIO 195, Upper Division Undergraduate Research. (Spring 2012)

QSB 292, Quantitative and Systems Biology Group Meeting. (Spring 2012)

QSB 293, Quantitative and Systems Biology Journal Club. (Spring 2012)

QSB 295, Graduate Research. (Spring 2012)

QSB 298, Directed Group Study. (Spring 2012)

Fall, 2011

QSB 292, Quantitative and Systems Biology Group Meeting. (Fall 2011)

QSB 293, Quantitative and Systems Biology Journal Club. (Fall 2011)

QSB 295, Graduate Research. (Fall 2011)

Spring, 2011

BIO 195, Upper Division Undergraduate Research. (Spring 2011)QSB 292, Quantitative and Systems Biology Group Meeting. (Spring 2011)

QSB 293, Quantitative and Systems Biology Journal Club. (Spring 2011)

QSB 295, Graduate Research. (Spring 2011)

Fall, 2010

BIO 110, The Cell. (Fall 2010)

BIO 195, Upper Division Undergraduate Research. (Fall 2010)

QSB 292, Quantitative and Systems Biology Group Meeting. (Fall 2010)

QSB 293, Quantitative and Systems Biology Journal Club. (Fall 2010)

QSB 295, Graduate Research. (Fall 2010)

Spring, 2010

BIO 150, Embryos Genes and Develop. (Spring 2010)

BIO 198, Developmental Immunology. (Spring 2010)

QSB 292, QSB Group Meeting. (Spring 2010)

QSB 293, QSB Journal Club. (Spring 2010)

QSB 295, Graduate Research. (Spring 2010)

Fall, 2009

BIO 110, The Cell. (Fall 2009)

BIO 198, Stem Cell and Immunology. (Fall 2009)

QSB 292, QSB Group Meeting. (Fall 2009)

QSB 293, QSB Journal Club. (Fall 2009)

QSB 295, Graduate Research. (Fall 2009)

Spring, 2009

BIO 150, Embryos Genes and Develop. (Spring 2009)
BIO 195, Stem Cell Research. (Spring 2009)
BIO 198, Upper Div Directed Group Study. (Spring 2009)
BIO 199, Upper Div Individual Study. (Spring 2009)
CORE 090, Filipino Ethnic Studies. (Spring 2009)
QSB 250, Embryos Genes and Development. (Spring 2009)
QSB 292, QSB Group Meeting. (Spring 2009)
QSB 293, QSB Journal Club. (Spring 2009)
QSB 295, Graduate Research. (Spring 2009)

Fall, 2008

BIS 195, Upper Div Undergrad Research. (Fall 2008) QSB 292, QSB Group Meeting. (Fall 2008) QSB 293, QSB Journal Club. (Fall 2008) QSB 295, Graduate Research. (Fall 2008)

Spring, 2008

BIS 150, Embryos Genes and Develop. (Spring 2008)BIS 195, Upper Div Undergrad Research. (Spring 2008)BIS 199, Upper Div Individual Study. (Spring 2008)

CORE 090, Filipino Ethnics Studies. (Spring 2008)

QSB 250, Embryos Genes and Development. (Spring 2008)

QSB 290, Current Topics in Quantitative and Systems Biology. (Spring 2008)

QSB 292, Stem Cell. (Spring 2008)

QSB 295, Graduate Research. (Spring 2008)

QSB 298, Mechanisms of Lymphocyte Dev. (Spring 2008)

Fall, 2007

BIS 195, Research Proj in Bio Sci. (Fall 2007)

BIS 199, Developmental Immunology. (Fall 2007)

QSB 290, Current Topics-Quant & Sys Bio. (Fall 2007)

QSB 292, QSB Group Meeting. (Fall 2007)

QSB 293, Stem Cell Journal Club. (Fall 2007)

QSB 295, Graduate Research. (Fall 2007)

Spring, 2007

BIS 110, The Cell. (Spring 2007)

BIS 95, Lower Div Undergrad Research. (Spring 2007)

QSB 292, QSB Group Meeting. (Spring 2007)

QSB 293, QSB Journal Club. (Spring 2007)

QSB 295, Graduate Research. (Spring 2007)

Fall, 2006

BIS 195, Developmental Immunology. (Fall 2006) QSB 290, Current Topics-Quant & Sys Bio. (Fall 2006) QSB 292, QSB Group Meeting. (Fall 2006) QSB 295, Graduate Research. (Fall 2006)

Summer, 2006

BIS 190, Developmental Immunology Rsrch. (Summer 2006)

Spring, 2006

BIS 110, The Cell. (Spring 2006)QSB 292, QSB Group Meeting. (Spring 2006)QSB 293, Quantitative and Systems Biology Journal Club. (Spring 2006)QSB 295, Developmental Immunology. (Spring 2006)

Fall, 2005

CORE 090, Great Women in Science. (Fall 2005)

QSB 292, QSB Group Meeting. (Fall 2005)

QSB 293, QSB Journal Club. (Fall 2005)

QSB 295, Graduate Research. (Fall 2005)

Other

New Course Development, (2014).

Jennifer Oliveros Manilay

August 28, 2021

Developed syllabus, lectures and assignments for BIO 154: Developmental Immunology, and taught this course for the first time at UC Merced with active learning approaches.

Guest Lecture, (November 17, 2011). Substitute lecturer for BIO 151 (Immunology) - "Innate Immunity and Infection"

Seminar, (June 2011 - August 2011). Organized Stem Cell Consortium Summer Work-in-Progress Lunch Series for graduate students, post-docs and staff at UC Merced

Guest Lecture, (October 13, 2010). Lecture for NSED 98: "Success in Natural Sciences"; entitled" How to Succeed in Biology at UCM"

Seminar, (June 2010 - August 2010). Organized a weekly summer work-in-progress seminar series for graduate students and post-doctoral fellows and staff working in stem cell biology at UC Merced.

New Course Development, (January 2008 - May 2008). Developed syllabus, lectures and exams for BIS 150: Embryos, Genes and Development. Taught this course for the first time at UCM.

Guest Lecture, (March 2008). Guest lecture for QSB 212: Advanced Signal Transduction

Course Reorganization, (August 2007 - December 2007). Re-organization of QSB 290, team-taught approach

Course Re-organization, (August 2006 - December 2006). Re-organized teaching approach to QSB 290: Current Topics in Quantitative and Systems Biology

New Course Development, (January 2006 - May 2006). Designed first syllabus for this course as UC Merced and designed five laboratory exercises

Guest Lecture, (2005). Guest instructor for QSB 290: Current Topics in Quantitative and Systems Biology, also wrote exam questions

Seminar, (2005). QSB Seminar Speaker

Doctoral Candidacy Committee

July 2013, Xiao Li (Dr. Matt Meyer, Advisor)

Doctoral Committee

2021 - Present, Sarina Qin, Member (Dr. Juris Grasis and Dr. Clarissa Nobile, Advisors)

2021 - Present, Susana Tejeda-Garibay, Member (Dr. Katrina Hoyer, Advisor)

2020 - Present, Nastaran Abbasidezeh, Member (Dr. Joel Spencer, Advisor)

2019 - Present, Negar Tehrani, Member (Dr. Joel Spencer, Advisor)

March 2018 - Present, Jose Zamora, Member (Dr. Kara McCloskey, Advisor)

2018 - Present, Jonathan Anzules, Member (Dr. Katrina Hoyer, Advisor)

December 2016 - Present, Betsabel Chicana, Advisor

2018 - 2021, Nicholas Hum, Member (Dr. Gabriela Loots, Advisor)

2017 - 2021, Genevieve Mullins, Member (Dr. Katrina Hoyer, Advisor)

August 2016 - 2021, Cristine Donham, Advisor

2018 - 2020, Diego Molina, Member (Dr. Anna Beaudin, Advisor) - Dr. Beaudin moved from UC Merced.

2017 - 2020, Gabriel Leung, Member (Dr. Anna Beaudin, Advisor) - Dr. Beaudin moved from UC Merced

2016 - 2020, Angel Kongsomboonvech, Member (Dr. Kirk Jensen, Advisor)

August 2015 - 2020, Alberto Millan, Advisor

2016 - 2019, Melanie Mendez, Member (Dr. Gabriela Loots, Advisor)

2015 - 2019, Manish Thiruvalluvan, Member (Dr. Nestor Oviedo, Advisor)
August 2014 - 2019, Kristen Valentine, Member (Dr. Katrina Hoyer, Advisor)
August 2013 - 2018, Nicole Madfis, Member (Dr. Kara McCloskey, Advisor)
August 2013 - 2016, Aimy Sebastian, Member (Dr. Gabriela Loots, Advisor)
August 2012 - 2016, Cristal Yee, Chair (Dr. Gabriela Loots, Advisor)
2008 - December 2014, Harshani Peiris, Chair (Dr. Nestor Oviedo, Advisor)
August 2008 - February 2014, Heather Thompson, Advisor
2007 - 2013, Mufad Al-Kuhlani, Chair (Dr. David Ojcius, Advisor)
2008 - August 2012, Johnny Touma, Chair (Dr. Mike Cleary, Advisor)
August 2007 - August 2010, David Gravano, Advisor
2007 - May 2010, Ali Abdul-Sater, Chair (Dr. David Ojcius, Advisor)
2006 - May 2009, Basha Stankovich, Member (Dr. Maria Pallavicini, Advisor)

Master's Thesis Committee

August 2021 – present, Janna Emery, Advisor
May 2013 - 2017, Sarah Parkhurst, Member (Dr. Fred Wolf, Advisor)
August 2013 - 2016, Andrew Lee, Member (Dr. Rudy Ortiz, Advisor)
August 2011 - May 2014, Yvette Pellman, Advisor (Ms. Pellman elected to leave before completing her M.S.)
January 2011 - April 2012, Aniket Sharma, Advisor (former student of Dr. Maria Pallavicini)
2010 - 2011, Joseph Ramos, Member (Dr. Marcos Garcia-Ojeda, Advisor)
2007 - 2011, Eric Lau, Member (Dr. Maria Pallavicini, Advisor)
2009, Sarah Stolberg, Member (Dr. Kara McCloskey, Advisor)
2005 - 2009, Heather Bryan, Chair (Dr. Maria Pallavicini, Advisor)

SERVICE

Department Service

Member, MCB Merit Review Committee. (March 2013 - Present).

Mentor, Biological Sciences Lecturer Mentor Program. (January 2013 - Present).

Member, Life Sciences Curriculum Committee. (January 2012 - Present).

Department Chair. (July 2020 - June 2023).

Member, MCB PPFP Research Symposium Committee. (2020 - 2021).

Co-Chair, MCB: Full Professor of Immunology Search Committee. (July 2019 - February 2021).

Chair, MCB: Asst. Teaching Professor of Biology - Search Committee. (July 2018 - June 2019).

Chair, MCB: Immunology Search Committee. (July 2013 - July 2014).

Member, MCB Budget Proposal Writing. (March 2013).

Chair, Stem Cell Biology Faculty Search Committee. (July 2005 - June 2006).

School/College Service

Chair, Graduate Student Thesis Advisory Committee. (2005 - Present). QSB Recruitment / Interviewer. (2021). Member, QSB Graduate Group Executive Committee. (July 2005 - 2012).
Participant, Faculty Search Committees. (2005 - 2012).
Member, Biology LPSOE Search Committee. (August 2011 - May 2012).
Member, School of Natural Sciences Workload Policy Committee. (2005 - 2006).

University Service

Member and Faculty Subcommittee Chair, UC Merced Chancellor Search Committee (July 2019 - June 2020) Member, General Education Subcommittee of the Undergraduate Council. (November 2017 – June 2018). Member, UC Cancer Research Coordinating Committee, Grant Review Committee. (June 2016 – June 2019). Member, UC Cancer Research Coordinating Committee, Steering Committee. (June 2016 - June 2019). Member, Stem Cell Instrumentation Foundry (SCIF) Faculty Advisory Board. (2011 - Present). Presenter and Host, Development and Fundraising. (when requested since July 2005). Chair, Undergraduate Chair for Biological Sciences. (February 2016 – June 2019). Co-Chair, Undergraduate Chair for Biological Sciences. (February 2015 - January 2016). Judge, Graduate Student Poster Judge, UCM Research Week. (March 2015). Member, Joint Administration Senate Strategic Academic Focusing Committee. (August 2013 - June 2014). Vice-Chair, Institutional Animal Care and Use Committee (IACUC). (July 2013 - June 2014). Member, Campus Recharge Committee. (April 2011 - 2013). Member, Institutional Animal Care and Use Committee (IACUC). (September 2011 - June 2013). Speaker and Faculty Representative, UC Merced Student Recruitment Events. (2005 - 2012). Speaker, Stem Cell Awareness Day. (2009 - 2011). Speed Mentor, University of California (LEADS) Leadership Excellence through Advanced DegreeS. (March 2009). Guest Speaker, University of California (LEADS) Leadership Excellence through Advanced DegreeS. (2007). Invited Speaker, UC Merced Pre-Health Professional Club. (April 2007). Vice-Chair, UC Merced Institutional Animal Care and Use Committee. (July 2006 - January 2007). Guest Speaker, Northern California Graduate Diversity Forum. (2006). Guest Speaker, V-Day Symposium (Women's Studies' Week). (2006). Member, Graduate Research Council. (2005 - 2006).

Professional Service

Journal of Immunology, Reviewer. (January 2006 - Present).

Accelerating Systemic Change Network (ASCN) - Recruiting Diverse Faculty Committee, Member, Pro Bono. (2020 - 2021).

Acta BioMaterialia, Reviewer. (March 2021).

Scientific Reports, Reviewer. (March 2021).

Cells, Reviewer. (December 2020).

Grant Advisor, San Jose State University College of Engineering, Compensated. (August 2020).

AAI Membership Committee, Member, Appointed, National. (July 2017 - June 2020).

Cellular Signaling, Reviewer. (September 2019).

iScience, Reviewer. (September 2019).

Lawrence Livermore National Laboratories, Reviewer, Appointed, Compensated. (June 2015).

German Research Foundation, Extramural Funding Reviewer. (June 2014).

BMC Research Notes, Journal Article Reviewer. (April 2014).

Page 23 of 24

PLOS-One, Reviewer. (2008 - 2012).

Diversity Committee, ThymUS 2012 Conference, Member, Appointed, Pro Bono, Participated in a panel session as a representative minority faculty member to discuss careers in science with students from a local historically black college in close proximity to the conference venue. (September 2011 - November 2012).

Free Radical Biology and Medicine, Reviewer. (July 2012).

Scientific Poster Judge, UCSF, UC Berkeley Immunology Retreat, Reviewer, Asilomar, CA. (September 2011).

NIH Challenge Grants, Extramural Funding Reviewer, Appointed. (2009).

National Science Foundation, Extramural Funding Reviewer. (2006 - 2008).

Molecular Cell Biology, 6th Edition, Reviewer. (2006).

Scandinavian Journal of Immunology, Reviewer. (2006).

Consulting

For Profit Organization, Cell Applications, Inc., San Diego, CA. (January 2014 - December 2016).

Public Service

Staff-Parish Relations Committee, Member, United Methodist Church of Merced, January 2021-present
Advisor, PLTW Biomedical Sciences Program, Roseville High School, Roseville, CA, February 2021-June 2021)
Chair, Merced United Methodist Church Leadership Council. (January 2015 – December 2019).
Interviewer, Harvard University Alumni Admissions Team, Stockton, CA. (occasionally since February 2012).
Member, Filipino American National Historical Society, Central Valley Chapter. (2005 - Present).
Speaker, Introduction to Cell Biology, Merced City School District. (2005 – multiple years).
Member, United Methodist Women, Merced, CA. (September 2011 - 2014).
Guest Speaker, Buhach Colony High School. (October 2014).
Speaker, Yosemite Leadership Program, Merced, CA. (March 2014).
Member, School Site Council, Rivera Middle School, Merced, CA. (August 2011 - June 2013).
Member, Merced County Office of Education STEM High School Founding Team, Merced, CA. (May 2013).
Guest Speaker, American Association of University Women Mother-Daughter Science Camp, Merced, CA. (2009 - 2012).
Member, School Site Council, Chenoweth Elementary School, Merced, CA. (2005 - 2010).
Member, Girl Scouts of America. (2005 - 2008).
Participant, Dinner with a Scientist, Merced County School District Science Start Program. (2006).