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PROFESSIONAL EXPERIENCE

10.2013-present Billy Wilder Endowed Professor and Chair, Dept. of Cancer Immunotherapeutics and Tumor Immunology (CITI), City of Hope Comprehensive Cancer Center
 11.2011-09.2013 Professor and Associate Chair, Dept. of Cancer Immunotherapeutics and Tumor Immunology (CITI), City of Hope Comprehensive Cancer Center
 07.2006-11.2011 Associate Professor of Medicine (with tenure), Stanford University
 09.1999-06.2006 Assistant Professor of Medicine (Hematology), Stanford University

EDUCATION

<i>Dates Attended</i>	<i>Institution and Location</i>	<i>Degrees Conferred Title or Status</i>	<i>Major Subject</i>
1982-1985	Univ. of California, Los Angeles Los Angeles, CA	B.S.	Microbiology
1985-1989	Univ. of California, San Diego San Diego, CA	M.D.	Medicine
1989-1992	Scripps Clinic La Jolla, CA	Residency	Internal Medicine
1992-1994	Univ of California, San Francisco San Francisco, CA	Fellowship	Immunology and Allergy
1993-1994	Univ of California, San Francisco San Francisco, CA	Research Fellowship	Immunogenetics and Transplantation
1995-1999	Stanford University Stanford, CA	Fellowship	Hematology

BOARD CERTIFICATION

1992 American Board of Internal Medicine
 1995 American Board of Allergy and Immunology

RESEARCH INTEREST

Understanding the nature, regulation, and dynamics of the interactions between cancer and the immune system. The design of novel approaches to modulate the immune response in cancer patients to control tumor progression, eradicate micrometastases, and prevent relapse. The use of mathematical modeling and computer simulations to unravel the complex, emergent properties of the immune network.

HONORS AND AWARDS

2012-17	Dept. of Defense Era of Hope Expansion Award for Breast Cancer Research
2006-11	Dept. of Defense Era of Hope Scholar Award for Breast Cancer Research
2006	Elected member, American Society for Clinical Investigation (ASCI)
2003-7	American Cancer Society (ACS) Research Scholar
2001-4	Damon Runyon Scholar Award (Connie and Bob Lurie Scholar)
2001	Stanford Medical School Excellence in Teaching
1994	Outstanding Young Investigator, World Transplantation Society
1994	Best Abstract and Presentation, Transplant Fellows Workshop
1992	Gordon Shultz Award for Outstanding Research, Scripps Clinic
1986	NIH Summer Research Fellowship
1985	Magna Cum Laude, Phi Beta Kappa, Departmental and College Honors, UCLA

CURRENT RESEARCH GRANTS

2012-2017	PI - Dept. of Defense Era of Hope Expansion Award for breast cancer research Title: Integrated Immunotherapy for Breast Cancer
2012-2016	PI - Dept. of Defense Multi-Team Award for breast cancer research Title: Enhancing the Breath and Efficacy of Therapeutic Vaccines for Breast Cancer
2008-2013	PI - NIH/NCI R01 CA130817 Title: Interplay between cancer and immune cells on targeted therapy
2007-2013	PI - NIH/NCI R01 CA127947 Title: Immune Profile Analysis of Tumor-Draining Lymph Nodes in Breast Cancer

PRIOR RESEARCH GRANTS AND FELLOWSHIP AWARDS

2006-2011	PI - Dept. of Defense Era of Hope Scholar Award for breast cancer research Title: Immunology, Systems Biology, and Immunotherapy of Breast Cancer
2004-2009	Subcontractor – NIH/NCI R01 (PI – Dr. Jeffrey Weber, Moffitt Cancer Center) Title: CTLA-4 Inhibition and Autoimmunity in Melanoma
2003-2007	PI - American Cancer Society Research Award Title: Biology of the Graft-vs-Leukemia Response
2004-2006	Subcontractor – NIH/NCI P01 (PI – Dr. Donald Morton, JWCI) Title: Analysis of T Cell Responses in Vaccinated Patients
2001-2006	PI - NIH/NCI R01 CA090809 Title: Characterization of Tumor-Specific T Cells in Melanoma
2005-2006	PI - Mary Hewitt Loveless Pilot Project Grant Title: Characterization of Disease-specific T Cells from Celiac Sprue Patients
2004-2006	PI - Harry J. Lloyd Charitable Trust Title: Mechanisms of Lymph Nodes Invasion by Melanoma

2003-2005	PI - Stanford Cancer Research Council Award Title: In Vivo Turnover Kinetics of Myeloma
2003-2005	PI - Stanford OTL Research Incentive Award Title: Computational Modeling of T Cell Signal Integration
2001-2004	PI - Damon Runyon Scholar Award (Connie and Bob Lurie Scholar) Title: Analysis and Manipulation of the T Cell Response to Cancer
2001-2004	Subcontractor – FDA H22816 (PI – Dr. Jeffrey Weber, USC) Title: Novel Adjuvants for Peptide-based Melanoma Vaccines
2001-2004	Subcontractor – NIH/NCI R01 (PI – Dr. Jeffrey Weber, USC) Title: IL-12 as an Adjuvant for a Melanoma Peptide Vaccine
2000-2001	Stanford Cancer Research Council Award
1999-2000	Stanford OTL Research Incentive Award
1997-2002	NIH/NCI Physician Scientist Award (K08 CA72976)
1993-1994	Bank of America-Giannini Foundation Fellowship
1993-1994	AAAI President's Award

RESIDENCY RESEARCH THESIS

Computer Modeling of Monoclonal Antibody Therapy (1992)

MEDICAL SCHOOL RESEARCH THESIS

A Possible Idiotypic Vaccine against HIV (1989)

TEACHING EXPERIENCE

T.A. in Biology, UCSD, 1986 - 1987

Lectures to housestaff and medical students, Stanford, 1995-present

Section leader, Medicine 205 (Hematology), Stanford Medical School, 2001-present

PROFESSIONAL EXPERIENCE

Scientific Team Leader, Project Artemis (development of a preventative breast cancer vaccine), National Breast Cancer Coalition, 1/11 - present

Organizing Committee, DoD Breast Cancer Era of Hope Conference 2011

Scientific Review Committee (SRC), Stanford Cancer Center, 3/10 - present

Editorial Board Member: Cancer Immunology Research, Hematologist (2003 – 2006)

Ad hoc reviewer: Nature Medicine, New England Journal of Medicine, PLoS Medicine, PNAS, J Exp Med, PLoS Biology, Nature Methods, Cancer Research, Blood, Clinical Cancer Research, Journal of Immunotherapy, Immunology Today, Cancer Letters, Human Immunology, British J Cancer

Reviewer: NIH MAB Study Section (Ad Hoc member), NIH/NCI Program Projects, DoD BCRP

Integration Panel (Ad Hoc member), ACS LIB review panel (Ad Hoc member), European Commission (EC) Programme for Research, Cancer Research UK, Singapore Scientific Counsel

PEER-REVIEWED PUBLICATIONS

1. Ferraris R, **Lee PP**, and Diamond J. What transport adaptations enable mammals to absorb sugars and amino acids faster than reptiles? American Journal of Physiology 249: G271-G283, 1985.

2. Koziol JA, **Lee PP**, Dillman RO, Fagnani R, and Halpern SE. Pharmacokinetics of ¹¹¹In-labelled monoclonal antibody ZCE-025 and fragments in tumour-bearing mice. Nuclear Medicine Communications 16: 299-305, 1995.
3. **Lee PP**, Ramanathan M, Hunt A, and Garovoy MR. An Oligonucleotide Blocks Interferon-Gamma Signal Transduction. Transplantation 62(9):1297-1301, 1996.
4. **Lee PP**, Zeng D, MaCaulay AE, Chen YF, Geiler C, Umetsu DT, and Chao NJ. T helper 2-dominant antilymphoma immune response is associated with fatal outcome. Blood 90(4):1611-1617, 1997.
5. Yee C, Savage PA, **Lee PP**, Davis MM, and Greenberg PD. Isolation of high-avidity melanoma-reactive CTL from heterogenous populations using peptide-MHC tetramers. Journal of Immunology 162(4):2227-2234, 1999.
6. Molldrem JJ, **Lee PP**, Wang C, Champlin RE, and Davis MM. A HLA-A2-PR1 tetramer can be used to isolate low-frequency CTL from healthy donors that selectively lyse chronic myelogenous leukemia. Cancer Research, 59(11):2675-2681, 1999.
7. **Lee PP**, Yee C, Savage PA, Fong L, Brockstedt D, Weber JS, Johnson D, Swetter S, Thompson J, Greenberg PD, Roederer M, and Davis MM. Characterization of circulating T cells specific for tumor-associated antigens in melanoma patients. Nature Medicine, 5(6):677-685, 1999.
8. Hernandez J, **Lee PP**, Davis MM, and Sherman LA. The use of HLA A2.1/p53 peptide tetramers to visualize the impact of self-tolerance on the T cell receptor repertoire. Journal of Immunology 164(2):596-602, 2000.
9. Molldrem JJ, **Lee PP**, Wang C, Felio K, Kantarjian HM, Champlin RE, and Davis MM. Evidence that specific T lymphocytes may participate in the elimination of chronic myelogenous leukemia. Nature Medicine, 6(8):1018-1023, 2000.
10. Yee C, Thompson JA, Roche P, Byrd DR, **Lee PP**, Piepkorn M, Kenyon K, Davis MM, Riddell, SR, and Greenberg PD. Melanocyte destruction after antigen-specific immunotherapy of melanoma: direct evidence of T cell-mediated vitiligo. Journal of Experimental Medicine, 192(11):1637-1644, 2000. PMC2193107
11. Jonuleit H, Giesecke-Tuettenberg A, Tuting T, Thurner-Schuler B, Stuge TB, Paragnik L, Kandemir A, **Lee PP**, Schuler G, Knop J, and Enk AH. A comparison of two types of dendritic cell as adjuvants for the induction of melanoma-specific T-cell responses in humans following intranodal injection. International Journal of Cancer, 93(2):243-51, 2001.
12. **Lee PP**, Wang F, Kuniyoshi J, Rubio V, Stuge T, Groshen S, Gee C, Lau R, Jeffery G, Margolin K, Marty V, and Weber J. Effects of Interleukin-12 on the immune response to a multi-peptide vaccine for resected metastatic melanoma. Journal of Clinical Oncology, 19(7):3836-3847, 2001.
13. Keilholz U, Weber J, Finke JH, Gabrilovich DI, Kast WM, Disis ML, Kirkwood JM, Scheibenbogen C, Schlom J, Maino VC, Lysterly HK, **Lee PP**, Storkus W, Marincola F, Worobec

- A, and Atkins MB. Immunologic monitoring of cancer vaccine therapy: results of a workshop sponsored by the society for biological therapy. J Immunotherapy 25(2):97-138, 2002.
14. Chang AE, Redman BG, Whitfield JR, Nickoloff BJ, Braun TM, **Lee PP**, Geiger JD, and Mule JJ. A Phase I Trial of Tumor Lysate-pulsed Dendritic Cells in the Treatment of Advanced Cancer. Clin Cancer Res 8(4):1021-1032, 2002.
 15. Falco DA, Nepomuceno RR, Krams SM, **Lee PP**, Davis MM, Salvatierra O, Alexander SR, Esquivel CO, Cox KL, Frankel LR, Martinez OM. Identification of Epstein-Barr virus-specific CD8+ T lymphocytes in the circulation of pediatric transplant recipients. Transplantation 74(4):501-510, 2002.
 16. Weber J, Sondak VK, Scotland R, Phillip R, Wang F, Rubio V, Stuge TB, Groshen SG, Gee C, Jeffery GG, Sian S, and **Lee PP**. Granulocyte-macrophage-colony-stimulating factor added to a multi-peptide vaccine for resected Stage II melanoma. Cancer 97(1):186-200, 2003.
 17. Molldrem JJ, **Lee PP**, Kant S, Wieder E, Jiang W, Lu S, Wang C, and Davis MM. Chronic Myelogenous Leukemia Shapes Host Immunity by Selective Deletion of High Avidity Leukemia-Specific T Cells. Journal of Clinical Investigation 111:639-647, 2003. PMC151894
 18. Chang T, Chang C, Simpson D, Xu Q, Martin P, Lagenaur L, Schoolnik G, Ho D, Hillier S, Holodniy M, Lewicki J, and **Lee PP**. Inhibition of HIV Infectivity by a natural human isolate of *Lactobacillus jensenii* engineered to express functional two-domain CD4. Proc Natl Acad Sci U S A 100(20):11672-11677, 2003. PMC208816
 19. Pullarkat V, **Lee PP**, Scotland R, Rubio V, Groshen S, Gee C, Lau R, Snively J, Sian S, Wolfe SL, Wolfe RA, Weber JS. A phase I trial of SD-9427 (progenipointin) with a multi-peptide vaccine for resected metastatic melanoma. Clin Cancer Res. Apr;9(4):1301-12, 2003.
 20. Tagawa ST, **Lee P**, Snively J, Boswell W, Ounpraseuth S, Lee S, Hickingbottom B, Smith J, Johnson D, Weber JS. Phase I study of intranodal delivery of a plasmid DNA vaccine for patients with Stage IV melanoma. Cancer 98(1):144-54, 2003.
 21. Rubio V, Stuge T, Singh N, Betts M, Weber J, Roederer M, and **Lee PP**. Ex Vivo Identification, Isolation, and Analysis of Tumor-Cytolytic T cells. Nature Medicine 9(11):1377-1382, 2003.
 22. Xu T, Shu CT, Purdom E, Dang D, Ilsley D, Guo Y, Weber J, Holmes SP, **Lee PP**. Microarray analysis reveals differences in gene expression of circulating CD8(+) T cells in melanoma patients and healthy donors. Cancer Res. 64(10):3661-7, 2004.
 23. Chiong B, Wong R, **Lee P**, Delto J, Scotland R, Lau R, Weber J. Characterization of long-term effector-memory T-cell responses in patients with resected high-risk melanoma receiving a melanoma Peptide vaccine. J Immunother. 27(5):368-79, 2004.
 24. Stuge TB, Holmes SP, Saharan S, Tuettenberg A, Roederer M, Weber J, and **Lee PP**. Diversity and Recognition Efficiency of T Cell Responses to Cancer. PLoS Med 1(2): e28, 2004. PMC529423

25. Sanderson K, Scotland R, **Lee P**, Liu D, Groshen S, Snively J, Sian S, Nichol G, Davis T, Keler T, Yellin M, Weber J. Autoimmunity in a Phase I Trial of a Fully Human Anti-Cytotoxic T-Lymphocyte Antigen-4 Monoclonal Antibody With Multiple Melanoma Peptides and Montanide ISA 51 for Patients With Resected Stages III and IV Melanoma. J Clin Oncol. 23(4):741-50, 2005.
26. DeConde R, Kim PS, Levy D, and **Lee PP**. Post-Transplantation Dynamics of the Immune Response to Chronic Myelogenous Leukemia. J Theor Biol. 236(1):39-59, 2005.
27. Holmes SP, He M, Xu T, and **Lee PP**. Lineage relationships in CD8 T cells revealed by microarray analysis. Proc Natl Acad Sci U S A 102(15):5519-23, 2005.
28. Casal A, Alber M, Sumen C, Reddy T, and **Lee PP**. Agent-Based Modeling of the Context Dependency in T Cell Recognition. J Theor Biol. 236(4):376-91, 2005.
29. Kohrt HB, Shu CT, Stuge TB, Holmes SP, Weber J, and **Lee PP**. Rapid Assessment of Recognition Efficiency and Functional Capacity of Antigen-Specific T Cell Responses. J Immunother. 28(4):297-305, 2005.
30. Chen D, Soen Y, Stuge TB, **Lee PP**, Weber J, Brown PO, and Davis MM. Marked Differences in Human Melanoma Antigen-Specific T Cell Responsiveness Following Peptide Vaccination Using a Functional Microarray. PLoS Med. 2(10):e265, 2005. PMC1216330
31. Kohrt HB, Nouri N, Nowels K, Johnson D, Holmes SP, and **Lee PP**. Profile of Immune Cells in Axillary Lymph Nodes Predicts Disease-free Survival in Breast Cancer. PLoS Med. 2(9):e284, 2005. PMC1198041
32. Siegel M, Bethune MT, Gass J, Ehren J, Xia J, Johannsen A, Stuge TB, Gray GM, **Lee PP**, and Khosla C. Rational Design of Combination Enzyme Therapy for Celiac Sprue. Chem Biol. 13(6):649-58, 2006.
33. Liu X, Lagenaur L, Simpson D, Essenmacher K, Frazier-Parker C, Liu Y, Tsai D, Rao S, Hamer D, Parks T, **Lee PP***, Xu Q. Engineered Vaginal Lactobacillus for Mucosal Delivery of the HIV Inhibitor, Cyanovirin-N. Antimicrob Agents Chemother. 50(10):3250-9, 2006. (*co-corresponding author) PMC1610104
34. Kim PS, **Lee PP**, Levy D. Modeling regulation mechanisms in the immune system. J Theor Biol 246(1):33-69, 2007. (*co-corresponding author)
35. Nacu S, Critchley-Thorne R, **Lee P**, Holmes S. Gene expression network analysis and applications to immunology. Bioinformatics 23(7):850-8, 2007.
36. Kapelner A, **Lee PP**, Holmes S. An Interactive Statistical Image Segmentation and Visualization System. Medvis (IEEE Computer Society) 0: 81–86, 2007.
37. Critchley-Thorne RJ, Yan N, Nacu S, Weber J, Holmes SP, and **Lee PP**. Down-regulation of the interferon signaling pathway in T lymphocytes from patients with metastatic melanoma. PLoS Med 4(5):e176, 2007. PMC1865558

38. Kim PS, **Lee PP**, Levy D. Modeling imatinib-treated chronic myelogenous leukemia: reducing the complexity of agent-based models. Bull Math Biol 2008 Apr;70(3):728-44.
39. Chen CI, Maecker HT, **Lee PP**. Development and dynamics of robust T-cell responses to CML under imatinib treatment. Blood 2008 Jun 1;111(11):5342-9. PMC2396727
40. Liu X, Lagenaur LA, **Lee PP**, Xu Q. Engineering of a human vaginal Lactobacillus strain for surface expression of two-domain CD4 molecules. Appl Environ Microbiol 2008 Aug;74(15):4626-35. PMC2504410
41. Kim PS, **Lee PP**, Levy D. Dynamics and potential impact of the immune response to chronic myelogenous leukemia. PLoS Comput Biol 2008 Jun 20;4(6):e1000095. (*co-corresponding author) PMC2427197
42. Kim PS, **Lee PP**, Levy D. A PDE model for imatinib-treated chronic myelogenous leukemia. Bull Math Biol 2008 Oct;70(7):1994-2016.
43. Butterfield LH, Disis ML, Fox BA, **Lee PP**, Khleif SN, Thurin M, Trinchieri G, Wang E, Wigginton J, Chaussabel D, Coukos G, Dhodapkar M, Hakansson L, Janetzki S, Kleen TO, Kirkwood J, Maccalli C, Maecker H, Maio M, Malyguine A, Masucci G, Palucka AK, Potter DM, Ribas A, Rivoltini L, Schendel D, Seliger B, Selvan S, Slingluff CL Jr, Stroncek DF, Streicher H, Wu X, Zeskind B, Zhao Y, Zocca MB, Zwierzina H, Marincola FM. A systematic approach to biomarker discovery; Preamble to "the iSBTc-FDA taskforce on Immunotherapy Biomarkers" J Transl Med 2008 Dec 23;6(1):81. PMC2630944
44. Yu RR, Cheng AT, Lagenaur LA, Huang W, Weiss DE, Treece J, Sanders-Beer BE, Hamer DH, **Lee PP**, Xu Q, Liu Y. A Chinese rhesus macaque (*Macaca mulatta*) model for vaginal Lactobacillus colonization and live microbicide development. J Med Primatol. 2009 Apr;38(2):125-36. PMID: 19367737
45. Critchley-Thorne RJ, Simons DL, Yan N, Miyahira AK, Dirbas FM, Johnson DL, Swetter SM, Carlson RW, Fisher GA, Koong A, Holmes S, **Lee PP**. Impaired interferon signaling is a common immune defect in human cancer. Proc Natl Acad Sci U S A. 2009 Jun 2;106(22):9010-5. PMC2690021
46. Holmes S, Kapelner A, **Lee PP**. An Interactive Java Statistical Image Segmentation System: GemIdent. Journal of Statistical Software 2009 Jan 15;30(10):1-20. PMC3100170
47. Tahara H, Sato M, Thurin M, Wang E, Butterfield LH, Disis ML, Fox BA, **Lee PP**, Khleif SN, Wigginton JM, Ambs S, Akutsu Y, Chaussabel D, Doki Y, Eremin O, Fridman WH, Hirohashi Y, Imai K, Jacobson J, Jinushi M, Kanamoto A, Kashani-Sabet M, Kato K, Kawakami Y, Kirkwood JM, Kleen TO, Lehmann PV, Liotta L, Lotze MT, Maio M, Malyguine A, Masucci G, Matsubara H, Mayrand-Chung S, Nakamura K, Nishikawa H, Palucka AK, Petricoin EF, Pos Z, Ribas A, Rivoltini L, Sato N, Shiku H, Slingluff CL, Streicher H, Stroncek DF, Takeuchi H, Toyota M, Wada H, Wu X, Wulfkühle J, Yaguchi T, Zeskind B, Zhao Y, Zocca MB, Marincola FM. Emerging concepts in biomarker discovery; the US-Japan Workshop on Immunological Molecular Markers in Oncology. J Transl Med. 2009 Jun 17;7:45. PMC2724494

48. Niculescu SI, Kim PS, Gu K, **Lee PP**, Levy D. Stability Crossing Boundaries of Delay Systems Modeling Immune Dynamics in Leukemia. Discrete and Continuous Dynamical Systems B, 2010; 13:129-156.
49. Kohrt H, Johannsen A, Hoppe R, Horning SJ, Rosenberg SA, Advani R, **Lee PP**. Dynamic CD8 T-cell responses to tumor-associated Epstein-Barr virus antigens in patients with Epstein-Barr virus-negative Hodgkin's disease. Oncol Res. 2009;18(5-6):287-92. PMID: 20225766
50. Kim PS, **Lee PP**, Levy D. Emergent group dynamics governed by regulatory cells produce a robust primary T cell response. Bull Math Biol. 2010 Apr;72(3):611-44. PMC3008572
51. Paquin D, Kim PS, **Lee PP**, Levy D. Strategic Treatment Interruptions During Imatinib Treatment of Chronic Myelogenous Leukemia. Bull Math Biol. 2010 Jun 9. PMID: 20532990
52. Kim PS, **Lee PP**, Levy D. A Theory of Immunodominance and Adaptive Regulation. Bull Math Biol. 2010 Oct 1. PMID: 20886303
53. Setiadi AF, Ray NC, Kohrt HE, Kapelner A, Carcamo-Cavazos V, Levic EB, Yadegarynia S, van der Loos C, Schwartz EJ, Holmes SP, and **Lee PP**. Quantitative, Architectural Analysis of Immune Cell Subsets in Tumor-Draining Lymph Nodes from Breast Cancer Patients and Healthy Lymph Nodes. PLoS ONE 2010, 5(8): e12420. doi:10.1371/journal.pone.0012420. PMC2928294
54. Kim PS and **Lee PP**. T cell state transition produces a change detector. J Theor Biol. 2011 Apr 21;275(1):59-69. PMC3050581
55. Ascierto PA, De Maio E, Bertuzzi S, Palmieri G, Halaban R, Hendrix M, Kashani-sabet M, Ferrone S, Wang E, Cochran A, Rivoltini L, **Lee PP**, Fox BA, Kirkwood JM, Ullmann CD, Lehmann FF, Sznol M, Schwartzentruber DJ, Maio M, Flaherty K, Galon J, Ribas A, Yang J, Stroncek DF, Mozzillo N, Marincola FM. Future perspectives in melanoma research. Meeting report from the "Melanoma Research: a bridge Naples-USA. Naples, December 6th-7th 2010". J Transl Med. 2011 Mar 26;9:32. PMC3078100
56. Butterfield LH, Palucka AK, Britten CM, Dhodapkar MV, Håkansson L, Janetzki S, Kawakami Y, Kleen TO, **Lee PP**, Maccalli C, Maecker HT, Maino VC, Maio M, Malyguine A, Masucci G, Pawelec G, Potter DM, Rivoltini L, Salazar LG, Schendel DJ, Slingluff CL Jr, Song W, Stroncek DF, Tahara H, Thurin M, Trinchieri G, van Der Burg SH, Whiteside TL, Wigginton JM, Marincola F, Khleif S, Fox BA, Disis ML. Recommendations from the iSBTc-SITC/FDA/NCI Workshop on Immunotherapy Biomarkers. Clin Cancer Res. 2011 May 15;17(10):3064-76. PMC3096674
57. Simons DL, Lee G, Kirkwood JM, **Lee PP**. Interferon signaling patterns in peripheral blood lymphocytes may predict clinical outcome after high-dose interferon therapy in melanoma patients. J Transl Med. 2011 May 5;9:52. PMC3114759
58. Lagenaur LA, Sanders-Beer BE, Brichacek B, Pal R, Liu X, Liu Y, Yu R, Venzon D, **Lee PP**, Hamer DH. Prevention of vaginal SHIV transmission in macaques by a live recombinant Lactobacillus. Mucosal Immunol. 2011 Jul 6. doi: 10.1038/mi.2011.30. PMC3433722

59. Chang GY, Kohrt HE, Stuge TB, Schwartz EJ, Weber JS, **Lee PP**. Cytotoxic T lymphocyte responses against melanocytes and melanoma. J Transl Med. 2011 Jul 27;9(1):122. PMC3158754
60. Liu X, Setiadi AF, Alber MS, **Lee PP**, Chen DZ. Identification and classification of cells in multispectral microscopy images of lymph nodes (Proceedings Paper). SPIE (International Society for Optics and Photonics) Medical Imaging Annual Conference, 2011.
61. Zuckerman NS, Yu H, Simons DL, Bhattacharya N, Carcamo-Cavazos V, Yan N, Dirbas FM, Johnson DL, Schwartz EJ, and **Lee PP**. Altered local and systemic immune profiles underlie lymph node metastasis in breast cancer patients. Int J Cancer 2012 Nov 8. doi: 10.1002/ijc.27933. PMC3609917
62. Kim PS and **Lee PP**. Modeling Protective Anti-Tumor Immunity via Preventative Cancer Vaccines Using a Hybrid Agent-based and Delay Differential Equation Approach. PLoS Comput Biol. 2012 Oct;8(10):e1002742. PMC3486888
63. Yu HX, Simons DL, Carcamo-Cavazos V, Schwartz EJ, Yan N, Zuckerman N, Segal I, Dirbas FM, Johnson DL, Holmes SP, and **Lee PP**. PRC2/EED-EZH2 Complex Is Up-regulated in Breast Cancer Lymph Node Metastasis Compared to Primary Tumor and Correlates with Tumor Proliferation In Situ. PLoS ONE, PLoS One. 2012;7(12):e51239. PMC3519681
64. Zuckerman NS, Noam Y, Goldsmith AJ, and **Lee PP**. A self-directed method for cell-type identification and separation of gene expression microarrays. PLoS Comp Biol, 2013 Aug;9(8):e1003189. doi: 10.1371/journal.pcbi.1003189. Epub 2013 Aug 22. PMID: 23990767
65. Chang AY, Bhattacharya N, Mu J, Setiadi AF, Carcamo-Cavazos V, Lee GH, Simons DL, Yadegarynia S, Hemati K, Kapelner A, Ming Z, Krag DN, Schwartz EJ, Chen DZ, and Lee PP. Spatial organization of dendritic cells within tumor draining lymph nodes impacts clinical outcome in breast cancer patients. J Transl Med. 2013 Oct 2;11(1):242. PMID: 24088396
66. Cereghetti DM and Lee PP. Tumor-Derived Exosomes Contain microRNAs with Immunological Function: Implications for a Novel Immunosuppression Mechanism. MicroRNA Journal, in press.
67. Chung B, et al. Target lysis by high avidity CTLs can be inhibited in an antigen-specific manner by low avidity CTLs: A novel form of immune regulation. Manuscript in progress.
68. Yu HX, et al. Tumor-derived Wnt ligands drive Arginase 1+ suppressor cells. Manuscript in progress.

BOOK CHAPTERS

1. Peter P. Lee. T-cell responses to cancer. Methods Cell Biol. 75:513-32, 2004.
2. Peter P. Lee. Tetramer Analysis. Handbook of Immune Monitoring, 2005.
3. Tom P. Parks, Qiang Xu, Laurel A. Lagenaur, and Peter P. Lee. Bacterial Therapeutics for the Treatment and Prevention of Urogenital Infections. Probiotics and prebiotics: scientific aspects, 2005.

4. Peter P. Lee and Francesco Marincola. Peptide-MHC Tetramer Analysis. Analyzing T Cell Responses, 2005.
5. Kim PS, Levy D, **Lee PP**. Modeling and simulation of the immune system as a self-regulating network. Methods Enzymol. 2009;467:79-109. PMID: 19897090
6. Critchley-Thorne RJ, Yu HX, and Lee PP. Immune Signatures Associated with the Cancer Bearing State. Immunologic Signatures of Rejection, 2010.
7. Blenman K and Lee PP. Quantitative and spatial image analysis of tumor and draining lymph nodes. Molecular Diagnostics for Melanoma; Methods in Molecular Biology, 2012.

PATENTS

1. Peter P. Lee. Protection from viral infection via colonization of mucosal membranes with genetically-modified bacteria. US patent #5,733,540 issued 3/31/98.
2. Peter P. Lee. A method of improving the half-life of soluble viral-specific ligands on mucosal membranes. US patent #6,365,156 B1 issued 4/2/02.
3. Peter P. Lee. Methods and compositions for identifying target cell cytolytic T cells in a sample. US patent application #60/508,709, filed 10/2/03.
4. Holbrook Kohrt and Peter P. Lee. Immune profile in axillary lymph nodes predicts disease-free survival in breast cancer. US provisional application filed 8/25/05.
5. Tor B. Stuge and Peter P. Lee. Methods for producing target cell reactive lymphocyte. US Patent #7,598,223 issued 10/6/09.
6. Samuel C. SILVERSTEIN, John D. LOIKE, Sadna BUDHU, and Peter P. LEE. METHODS, COMPOSITIONS, AND ASSAYS FOR DETERMINING THE EFFECT OF AN IMMUNE CELL ON A CELL FROM AN INFECTIOUS OR NEOPLASTIC DISEASE. U.S. Patent Application Serial no. 13/509,405, filed May 11, 2012.

INVITED PRESENTATIONS

1. World Transplantation Congress, September 1994, Kyoto, Japan. An oligonucleotide blocks Interferon- γ signal transduction.
2. NCI/FDA Conference on Tumor Vaccines, December 1998, Bethesda, MD. Immune monitoring with MHC/peptide tetramers.
3. Experimental Hematology Conference, MD Anderson Cancer Center, March 1999, Houston, TX. Studying the immune response to cancer using MHC/peptide tetramers.

4. Keystone Symposium on Cellular Immunity and Immunotherapy of Cancer, January 2000, Santa Fe, NM. T cell responses in melanoma and chronic myelogenous leukemia.
5. Symposium on Tumor Immunology, AACR Annual Meeting, March 2001, New Orleans, LA. Interplay between T cells and cancer: myths, challenges, and opportunities.
6. Special seminar, Agilent Technologies, March 2001, Palo Alto, CA. Analysis of tumor-specific T cells using DNA microarrays.
7. Immune Monitoring Workshop, 16th Annual Meeting, Society for Biological Therapy, November 2001, NIH, Bethesda, MD. Co-Chair: Tetramer Analysis for Cancer Immunotherapy.
8. Perspectives in Melanoma VI, November 2003, Miami, FL. Measurement of the T cell response to peptide and other vaccination strategies.
9. Immunotherapy of Melanoma workshop, March 2004, Santa Monica, CA. Significance and optimization of recognition efficiency for T cell responses to cancer.
10. Baylor Institute for Immunology Research, July 2004, Dallas, TX. Complexity of T cell responses to cancer.
11. International Society for Advances in Probiotics and Prebiotics, August 2004, Copper Mountain, CO. Engineered lactobacilli to inhibit vaginal HIV transmission.
12. International conference on Measuring Antigen-Specific Immune Responses (MASIR), January 2005, Courmayeur, Italy. Significance and optimization of recognition efficiency for T cell responses to cancer.
13. International Union of Microbiological Societies, July 2005, San Francisco, CA. Human vaginal lactobacilli engineered as a delivery vehicle for anti-HIV proteins in situ.
14. National Jewish Medical Center, October 2005, Denver, CO. Immunobiology of tumor-draining lymph nodes in breast cancer.
15. Keystone Symposium on Immunotherapy of Cancer, March 2007, Banff, Canada. Dysregulation of Interferon signaling in lymphocytes from melanoma patients.
16. NCI Symposium on Cancer Immunology, September 2007, El Paso, TX. Interferon signaling defects in lymphocytes from melanoma patients.
17. International Partnership in Microbicides, January 2008, Silver Spring, MD. Development of a Live Microbicide for Women.
18. Stanford GI Oncology Retreat, March 2008, Palo Alto, CA. Immune Analysis of Draining Lymph Nodes in Cancer.

19. Univ. Pittsburgh Cancer Institute, April 2008, Pittsburgh, PA. Interferon-signaling defects in immune cells in cancer.
20. Univ. Pittsburgh Medical Center Oncology Grand Rounds, April 2008, Pittsburgh, PA. Prediction of Clinical Responders to High Dose Interferon Therapy for Melanoma.
21. Univ. Utah Mathematics Symposium, May 2008, Salt Lake City, UT. Modeling the immune response to CML on imatinib.
22. Univ. Utah Cancer Immunology Workshop, May 2008, Salt Lake City, UT. Interferon signaling defect in lymphocytes from cancer patients.
23. Symposium on “Immune and Inflammatory Contributions to Breast Cancer”, DoD Era of Hope Conference, June 2008, Baltimore, MD. Dendritic and T Cell Dysregulation in Tumor-Draining Lymph Nodes Predict Breast Cancer Recurrence.
24. Spotlight Session: Era of Hope Scholars, DoD Era of Hope Conference, June 2008, Baltimore, MD. Immunology, Systems Biology, and Immunotherapy of Breast Cancer.
25. Dermatology Grand Rounds, October 2008, Stanford University, Stanford, CA. Interferon Signaling Defect in Lymphocytes from Melanoma Patients
26. Arizona State University, March 2009, Tempe, AZ. Immune Dysfunction in Cancer.
27. U.S.-Japan Meeting on Immunotherapy Markers in Oncology: Progress and Challenge, March 2009, Waikoloa, HI. Impaired Interferon Signaling is a Common Defect in Human Cancer.
28. Cancer Research Center of Hawaii, March 2009, Honolulu, HI. Immune Dysfunction in Cancer.
29. Wistar Institute/U Penn Oncology Seminar, April 2009, Philadelphia, PA. Immune Dysfunction in Cancer.
30. Co-Chair and Speaker, Session on “Novel Marker Identification”, iSBTc-FDA-NCI Workshop on Biomarkers, October 2009, Washington DC. High Throughput Technology and Predictive Immune Monitoring.
31. Pfizer Oncology, December 2009, La Jolla, CA. Immune Analysis of Tumors and Tumor-Draining Lymph Nodes in Cancer.
32. National Breast Cancer Coalition/Think Tank on a Prophylactic Vaccine for Breast Cancer, March 2010, Calistoga, CA. Quantitative and Dynamical Aspects of Immune Responses to Breast Cancer.
33. Symposium on “Modeling and Simulation Strategies for Immune-Mediated Therapies: Oncology”, AAPS National Biotechnology Conference, May 2010, San Francisco, CA. Modeling regulation mechanisms in the immune system.
34. Department of Immunology/Microbiology Seminar, Rush University Medical Center, May 2010, Chicago, IL. Immune Signaling Defects in Cancer.

35. National Breast Cancer Coalition LEADcast, June 2010. Immunology and Immunotherapy of Breast Cancer.
36. Co-Chair and Speaker, Session on “Novel Methodologies for Assessing the Immune Landscape”, iSBTc-FDA-NCI Biomarkers Symposium, September 2010, NIH, Bethesda, MD. Immune Changes in Tumor-Draining Lymph Nodes as Novel Biomarkers.
37. Center for Cancer Immunology Research (CCIR) Distinguished Seminar Series, MD Anderson Cancer Center, October 2010, Houston, TX. How Cancer Affects the Host Immune Response.
38. International Congress on Melanoma Research, December 2010, Naples, Italy. Immune Signaling Defects in Melanoma and other Cancers.
39. Cancer Center Seminar, University of Hawaii, January 2011, Honolulu, HI. Cancer-Immune Interplay Drives Clinical Outcome.
40. Asian American Science & Technology Association Annual Conference, March 2011, Santa Clara, CA. The Future of Human Health and Technologies.
41. Cancer Center Seminar, City of Hope Cancer Center, May 2011, Duarte, CA. Tumor-Immune Interplay Drives Clinical Outcome in Breast Cancer.
42. Dept. of Immunology Seminar, May 2011, Davis, CA. How Cancer Affects the Immune System.
43. National Breast Cancer Coalition Annual Conference, May 2011, Washington DC. Harnessing the Immune Response to Prevent Breast Cancer Development and Metastasis.
44. Breast Cancer Grand Rounds, Stanford Medical Center, July 2011, Stanford, CA. Tumor-Immune Interplay Drives Clinical Outcome in Breast Cancer.
45. Plenary Lecture, DoD BCRP Era of Hope Conference, August 2011, Orlando, FL. Interplay between the Immune System and Breast Cancer.
46. Beckman Research Institute Research Conference, May 2012, Lake Arrowhead, CA. The Complex Interplay between Cancer and the Immune System.
47. National Breast Cancer Coalition LEAD Conference, July 2012, La Jolla, CA. Immune Response to Breast Cancer.
48. Complex Dynamical Systems Seminar, California Institute of Technology, September 2012, Pasadena, CA. The Complex Interplay between Cancer and the Immune System.
49. National Breast Cancer Coalition Project Artemis Immunology Workshop, October 2012, Beverly Hills, CA. Quantitative and Immunological Considerations in a Preventative Breast Cancer Vaccine.

50. Laura Evans Memorial Breast Cancer Symposium, February 2013, Sun Valley, ID. Immunobiology of Sentinal Lymph Nodes in Breast Cancer.
51. Next Generation Pathology symposium, Molecular Med Tri-CON, February 2013, San Francisco, CA. Quantitative, Spatial Image Analysis of Cancer-Immune Interactions in Tumors and Draining Lymph Nodes.
52. National Breast Cancer Coalition Project Artemis Annual Meeting, March 2013, Calistoga, CA. Developmental Path to a Preventative Breast Cancer Vaccine.
53. National Breast Cancer Coalition Leadership Summit, May 2013, Washington, DC. It's Not Just About the Cancer Cells: Cancer-Stromal Interactions.
54. Revolutionaries for Global Health Symposium, May 2013, Boston, MA. Immune-Cancer Interactions in Tumor Draining Lymph Nodes: Novel Prognostic and Mechanistic Insights for Breast Cancer.
55. Drug Discovery and Development Conference, May 2013, Boston, MA. Immune Cells in Tumor Draining Lymph Nodes: Novel Prognostic Indicators for Breast Cancer.