Paul L. Bollyky, MD, D.Phil.
CURRICULUM VITAE

CONTACT INFORMATION:

Stanford University School of Medicine
Division of Infectious Diseases and Geographic Medicine
Department of Medicine
279 Campus Dr.
Beckman Bldg Rm 241
Stanford, CA 94305
206-403-8451
pbollyky@stanford.edu

EDUCATION:

Harvard Medical School M.D. (Medicine), *2001*

University of Oxford, D.Phil. (Zoology), *1998*
Thesis Title: Viral Genetic Diversity and Clinical Disease in Hepatitis B Virus Infection.
Principal Advisor: Edward C. Holmes, D.Phil.

Columbia University, BA, (Biology)*,1994*
Magna Cum Laude, Phi Beta Kappa

POSTGRADUATE TRAINING:

Benaroya Research Institute at Virginia Mason
Post-Doctoral Fellowship in Immunology, *2007-2012*
Principal Advisor: Gerald T. Nepom, MD, PhD.

University of Washington
• Clinical Fellowship in Infectious Diseases, *2004-2007*

Brigham and Women's Hospital
Internal Medicine
• Residency, *2002-2004*
• Internship, *2001-2002*

FACULTY APPOINTMENTS:

Stanford University School of Medicine, Stanford, CA
Division of Infectious Diseases and Geographic Medicine; Department of Medicine
Immunology Program; Department of Medicine
Department of Microbiology and Immunology
• Assistant Professor, *2013-2019*
• Associate Professor, *2019-present*

HOSPITAL APPOINTMENTS:

• Stanford Medical Center, Palo Alto, CA, *2013-present*
• Lucille Packard Children's Hospital, Palo Alto, CA, *2013-present.*
• University of Washington Medical Center, Seattle, WA, *2004-12*
• Eastside Hospital, Bellevue, WA, *2004-11*
• Brigham and Women's Hospital, Boston, MA, *2001-04*
• Faulkner Hospital, Boston, MA, *2001-04*

SPECIALTY CERTIFICATION:

• ABIM-Infectious Disease, *2007-2029*
• ABIM-Internal Medicine, *2004-2014*

LICENSURE:

- State of California, Medical License exp. *11/2029*
- State of Washington, Medical License exp. *1/2013*
- State of Massachusetts, Medical License exp. *11/2005*

HONORS AND AWARDS:

- Fellow, Infectious Disease Society of America, *2019*
- Elected to membership in the American Society of Clinical Investigators (ASCI), *2018*
- Harrington Scholar-Innovator Award, Harrington Discovery Institute, *2017*
- Transformative Research Award; Dr. Ralph and Marian Falk Medical Research Trust, *2017*
- Grand Challenges Award, Bill and Melinda Gates Foundation, *2016*
- Young Innovator Grant, Stanford University ITI, *2015*
- Outstanding Faculty Mentor; Stanford Immunology Program*, 2015*
- Catalyst Research Award; Dr. Ralph and Marian Falk Medical Research Trust, *2015*
- Innovator Grant, Stanford University SPARK, *2014, 2016, 2020*
- Travel Award; Federation of Clinical Immunology Societies (FOCIS), *2014*
- Career Development Award; JDRF (declined), *2012*
- Young Investigator Award, UW Diabetes Research Council, *2012*
- Elected to membership in the Western Society of Clinical Investigators (WSCI), *2011*
- Best Trainee Presentation Award; FOCIS Conference, *2008*
- Genentech/Biogen Travel Award; FOCIS Conference, *2008*
- NIH Loan Repayment Award, *2006.* Renewed *2008, 2010*
- NIH K08 Mentored Career Development Award Recipient, *2007-12*
- Excellence in Teaching Award, Harvard Medical School, *2003*
- Soma Weiss Award for Outstanding Student Research, Harvard Medical School, *2000*
- Paul Dudley White Global Health Fellowship, Harvard Medical School, *1999*
- North Senior Scholar, St. John's College, University of Oxford, *1996*
- Eisenhower Watch (Columbia University's Student-Athlete Award), *1994*
- Phi Beta Kappa, *1994*
- Marshall Scholar, *1994*
- Dean's List, *1991-1994*
- Robert Harron Bowl Memorial Bowl, Lightweight Men's Rowing, Columbia University, *1994*
- Richard Goodridge Jackson Memorial Prize, Men's Rowing, Columbia University,*1994*
- Academic All-Ivy League; Lightweight Rowing, *1993, 1994*
- Glendon Room Prize for Excellence in Varsity Athletics, Columbia University, *1993*
- Academic All-America, U.S. Rowing, *1992*
- Rotary Scholar, *1990*

SCHOLARLY PUBLICATIONS:

Peer Reviewed Research Articles

1. EC Cevallos, R Patel, J Van Belleghem, **PL Bollyky**, and GA Suh. Phage Therapy for Limb-Threatening Prosthetic Knee *Klebsiella pneumoniae* Infection: Case Report and in vitro Characterization of Anti-Biofilm Activity. *Clinical Infectious Diseases* (in press).
2. X Wang, S Balaji, EH Steen, AJ Blum, H Li, CK Chan, SR Mason, T Lu, MM Rae, PF Austin, TN Wight, **PL Bollyky**, J Cheng, SG Keswani. High Molecular Weight Hyaluronan Variants Attenuate Tubulointerstitial Scarring in Kidney Injury. *JCI Insight* (in press).
3. KM Khomtchouk, M Weglarz, LA Bekale, **PL Bollyky**, and PL Santa Maria. Quantitative Assessment of Bacterial Growth Phase Utilizing Flow Cytometry. *Journal of Microbiological Methods*. 2019 Dec;167:105760. doi: 10.1016/j.mimet.2019.105760. PMID:31678132
4. IO Koliesnik, HF Kuipers, CO Medina, S Zihsler, JD Van Belleghem, and **PL Bollyky**. The Heparan Sulfate Mimetic PG545 polarizes T-cell responses towards Foxp3+ Treg. *Frontiers in Immunology*. 2020 Feb 6;11:132. doi: 10.3389/fimmu.2020.00132. eCollection 2020. PMID:32117279
5. JM Sweere, H Ishak, V Sunkari, MS Bach, R Manasherob, K Yadava, SM Ruppert, CK Sen, S Balaji, SG Keswani, PR Secor, and **PL Bollyky**. The immune response to chronic Pseudomonas aeruginosa wound

infection in immune-competent mice. *Advances in Wound Care*. 2020 Feb 1;9(2):35-47. doi: 10.1089/wound.2019.1039. PMID:31903297
6. CR de Vries, JM Sweere, H Ishak, V Sunkari, MS Bach, R Manasherob, and **PL Bollyky**. A Delayed Inoculation Model of Chronic *Pseudomonas aeruginosa* Wound Infection. *J. Vis. Exp.*(156), e60599, doi:10.3791/60599 (2020).
7. X Wang, S Balaji, EH Steen, H Li, MM Rae, AJ Blum, MJ Butte, **PL Bollyky**, and SG Keswani. Lymphocytes Attenuate Dermal Scarring by Regulating Inflammation, Neovascularization and Extracellular Matrix Remodeling. *Advances in Wound Care*. 2019 Nov 1;8(11):527-537. doi: 10.1089/wound.2019.0981. PMID:31637099
8. K Yadava, CO Medina, H Ishak, I Gurevich, HF Kuipers, EA Shamskhou, JJ Moon, C Weaver, G Ogg, K Nadeau, and **PL Bollyky**. Lung-resident Tr1-like cells do not confer lasting tolerance to airway allergens. *eLife*. 2019. Oct 11;8. pii:e44821. doi:10.7554/eLife.44821. PMID:31603425
9. AV Malkovskiy, AA Yacob, CE Dunn, JM Zirbes, SP Ryan, **PL Bollyky**, J Rajadas, CE Milla. Salivary hypothiocyanate as a novel biomarker of Cystic Fibrosis Transmembrane Regulator function. *Analytical Chemistry.* 2019 Jun 18;91(12):7929-7934. doi: 10.1021/acs.analchem.9b01800. PMID:31117414
10. EB Burgener, JM Sweere, MS Bach, PR Secor, N Haddock, LK Jennings, RL Marvig, HK Johansen, E Rossi, X Cao, L Tian, L Nedelec, S L Tian, Molin, **PL Bollyky***, CE Milla***.** Filamentous bacteriophage are associated with poor lung function in patients with cystic fibrosis. *Science Translational Medicine.* 2019. 11:488, DOI: 10.1126/scitranslmed.aau9748. PMID:30996083. *Co-senior authors.
11. JM Sweere, J Van Bellegehem, H Ishak, MS Bach, V Sunkari, G Kaber, R Manasherob, GA Suh, M Popescu, PL Marshall, M Birukova, X Cao, E Katznelson, DV Lazzareschi, S Balaji, S Keswani, TR Hawn, PR Secor, and **PL Bollyky.** Filamentous Bacteriophage Suppress Clearance of Bacterial Infection. *Science*. 2019. 363, 6434, 1416. DOI: 10.1126/science.aat9691. PMID:30923196
12. N Nagy, I Gurevich, HF Kuipers, SM Ruppert, PL Marshall, BJ Xie, W Sun, AV Malkovskiy, J Rajadas, M Grandoch, JW Fischer, AR Frymoyer, G Kaber, and **PL Bollyky**. 4-Methylumbelliferyl Glucuronide contributes to hyaluronan synthesis inhibition. *J Biol. Chem*. 2019 Mar 26. pii: jbc.RA118.006166. PMID:30914479
13. Collum SD, Molina JG, Hanmandlu, A, Weizhen B, Mesias P , Mertens, TCJ, Wilson C, Sun W, Rajadas J, **Bollyky PL**, Philip KM, Blackburn MR, Thandavarayan RA, Guha A, and Karmouty-Quintana H. Adenosine and Hyaluronan modulate lung fibrosis and pulmonary hypertension in a murine model of Combined Pulmonary Fibrosis and Emphysema. *Disease Models and Mechanisms*. 2019. Apr 29. pii: dmm.038711. doi: 10.1242/dmm.038711. PMID:31036697.
14. M Grandoch, U Flögel, S Virtue, JK Maier, T Jelenik C Kohlmorgen, K Feldmann, Y Podsvyadek, TR. Castañeda, Z Zhou, Y Yamaguchi, EBM Nascimento, VG Sunkari, C Goy, M Kinzig, F Sörgel, **PL Bollyky**, P Schrauwen, H Al-Hasani, M Roden, S Keipert, A Vidal-Puig, M Jastroch, J Haendeler, JW Fischer. 4-Methylumbelliferone improves the thermogenic capacity of brown adipose tissue. *Nature Metabolism.* 2019. 1; 546–559 (2019). http://doi.org/10.1038/s42255-019-0055-6. PMID:31602424
15. EA Shamskhou, MJ Kratochvil, ME Orcholski, N Nagy, G Kaber, E Steen, S Balaji, SG Keswani, B Danielson, K Yuan, **PL Bollyky***, and V De Jesus Perez*. Hydrogel-based delivery of IL-10 improves treatment of bleomycin-induced lung fibrosis in mice. *Biomaterials*. 2019. Feb 22;203:52-62. doi: 10.1016/j.biomaterials.2019.02.017. PMID:30852423. * Co-senior authors.
16. **PL Bollyky** and PR Secor, The Innate Sense of Bacteriophages, *Cell Host & Microbe* (2019), Feb. 13. https://doi.org/10.1016/ j.chom.2019.01.020. PMID:30763530
17. JD Van Belleghem and **PL Bollyky,** Macrophages and Innate Immune Memory Against Staphylococcus Skin Infections**.** *Proc. Natl. Acad. Sci. USA.* 2018, Nov. 201816935; DOI:10.1073/pnas.1816935115
18. N Nagy, VG Sunkari, G Kaber, S Hasbun, DN Lam,C Speake, S Sanda, TL McLaughlin, TN Wight, SR Long, and **PL Bollyky**. Hyaluronan Levels Are Increased Systemically in Human Type 2 but not Type 1 Diabetes Independently of Glycemic Control. *Matrix Biology*. 2018 Sep 6. pii: S0945-053X(18)30309-3. doi: 10.1016/j.matbio.2018.09.003. PMID:30196101
19. N Nagy, A de la Zerda, G Kaber, MJ Kratochvil, K Yadava, W Zhao, Y Cui, G Navarro, JP Annes, PY Johnson, KH Hu, CK Chan, TN Wight, SC Heilshorn, **PL Bollyky***, MJ Butte*. Hyaluronan content governs tissue stiffness in pancreatic islet inflammation. *J. Biol. Chem*. 2018 Jan 12;293(2):567-578. PMID: 29183997 *Co-senior authors.
20. JA Gebe, K Yadava, S Ruppert, P Marshall, P Hill, A Preisinger, BA Falk, JM Sweere, C Medina, H Han, G Kaber, K Mikecz, SF Ziegler, S Balaji, SG Keswani, V de Jesus-Perez, MJ Butte, K Nadeau, WA Altemeier,

N Fanger, and **PL Bollyky.** Modified High Molecular Weight Hyaluronan Promotes Allergen-Specific Tolerance. *AJRCMB*. 2017 Jan;56(1):109-120. doi: 10.1165/rcmb.2016-0111OC. PMID: 27598620.
21. M PrabhuDas, CL Baldwin, **PL Bollyky**, D Bowdish, K Drickamer, M Febbraio, J Herz, L Kobzik, M Krieger, J Loike, TK Means, S Moestrup, S Post, T Sawamura, S Silverstein, R Speth, JC Telfer, G Thiele, XY Wang, SD Wright, J El Khoury. A Consensus Definitive Classification of Scavenger receptors. *J. Immunol*. May 15;198(10):3775-3789. doi: 10.4049/jimmunol.1700373. PMID: 28483986.
22. HW Lee, HB Jie, **PL Bollyky**, D Sarracino, TS Kim, and BS Wilson. Role of dendritic cell maturation factors produced by human invariant NKT cells in immune tolerance. *J. Leuk Biol.* 2017 Apr;101(4):989-1003. PMID: 27837018
23. S Balaji, X Wang, A King, LD Le, S Sukanta, E Marsh, SS Bhattacharya, C Moles, MJ Butte, VA de Jesus Perez, Y Dhamija, KW Liechty, TN Wight, TM Crombleholme, **PL Bollyky** and SG Keswani. Interleukin-10 Mediated Regenerative Postnatal Tissue Repair is Dependent on Regulation of Hyaluronan Metabolism via Fibroblast-specific STAT3 Signaling. *FASEB*. 2017 Mar;31(3):868-881. PMID: 27903619
24. HF Kuipers, J Yoon, J van Horssen, MH Han, **PL Bollyky**, TD Palmer, L Steinman. Phosphorylation of alphaB-crystallin supports reactive astrogliosis in demyelination. *Proc. Natl. Acad. Sci. USA*. 2017 Feb 28;114(9):E1745-E1754. PMID: 28196893.
25. S Homann, M Grandoch, LS. Kiene, Y Podsvyadek, B Rabausch, N Nagy, S Lehr, Inga Kretschmer, Oberhuber, R Tammi, **PL Bollyky**, JW Fischer. Hyaluronan synthase 3, a novel interleukin 1 beta target, critically determines plaque inflammation in atherosclerosis**.** *Matrix Biology* 2017 Oct 5. pii: S0945-053X(17)30253-6. PMID: 28987865.
26. Collum SD, Chen, NY, Hernandez, AM, Hanmandlu, A, Sweeney, H, Mertens, T, Weng TT, Luo F, Molina JG, Davies J, Horan IP, Morrell NW, Amione-Guerra J, Al-Jabbari O, Youker K, Sun W, Rajadas J, **PL Bollyky**, Akkanti B, Jyothula S, Sinha N, Guha A, and Karmouty-Quintana H. Inhibition of Hyaluronan Synthesis Attenuates Pulmonary Hypertension Associated with Lung Fibrosis. *Brit. J. Pharmacol.* 2017 Oct;174(19):3284-3301. PMID: 28688167.
27. B Danielson, CH Chen, G Kaber, Daria Mochly-Rosen, K Grimes, R Stern, and **PL Bollyky.** Human Chitinase Does Not Catabolize Hyaluronan. *Internat. J. Biol. Macromol.* 2017 Apr 1;109:629-633. PMID:29247734.
28. H Nazik, LM Joubert, PR Secor, JM Sweere, **PL Bollyky**, G Sass, L Cegelski, DA Stevens. Pseudomonas phage inhibition of Candida Albicans. *Microbiology.* 2017 Nov;163(11):1568-1577. PMID: 28982395.
29. HF Kuipers, M Rieck, I Gurevich, N Nagy, MJ Butte, RS Negrin, TN Wight, L Steinman, and **PL Bollyky**. Hyaluronan Synthesis is Necessary for Autoreactive T cell Trafficking, Activation, and Th1 Polarization". *Proc. Natl. Acad. Sci. USA*. 2016, Feb 2;113(5):1339-44. PMID: 26787861
30. HF Kuipers, N Nagy, SM Ruppert, VG Sunkari, PL Marshall, JA Gebe, HD Ishak, SG Keswani, J Bollyky, AR Frymoyer, TN Wight, L Steinman and **PL Bollyky**. The Pharmacokinetics and Dosing of Oral 4-Methylumbelliferone for Inhibition of Hyaluronan Synthesis in Mice. *Clinical and Experimental Immunology* 2016 May 24. Sep;185(3):372-81. doi: 10.1111/cei.12815. PMID: 27218304
31. JC Penner, JAG. Ferreira, PR Secor, J Sweere, M Birukova, LM Joubert, JA Haagensen, O Garcia, AV Malkovskiy, G Kaber, H Nazik, R Manasherob, K.V. Clemons, D.A. Stevens, and **PL Bollyky**. Pf4 Bacteriophage Produced by *Pseudomonas aeruginosa* Inhibit *Aspergillus fumigatus* Metabolism via Iron Sequestration. *Microbiology*. 2016 Jul 29. doi: 10.1099/mic.0.000344. PMID: 27473221
32. PR Secor, LA Michaels, KS Smigiel, MG Rohani, LK Jennings, KB Hisert, A Arrigoni, KR Braun, TP Birkland, Y Lai, TS Hallstrand, **PL Bollyky**, PK Singh, and WC Parks. Filamentous bacteriophage produced by *Pseudomonas aeruginosa* alters the inflammatory response and promotes non-invasive infection *in vivo. Infection and Immunity.* 2016 Dec 29;85(1). pii: e00648-16. doi: 10.1128/IAI.00648-16. PMID: 27795361.
33. S Balaji, A King, LD. Le, Y Dhamija, S. Bhattacharya, J Xu, DA. Narmoneva, **PL Bollyky**, KW. Liechty, TM. Crombleholme, SG. Keswani. The Role of Interleukin-10 and Hyaluronan in Murine Fetal Fibroblast Function In Vitro: Implications for Recapitulating Fetal Regenerative Wound Healing. *PlosONE*. 2015,10(5):e0124302. PMID: 25951109
34. SM Ruppert, BA Falk, SA Long, and **PL Bollyky.** Regulatory T Cells Resist Cyclosporine-Induced Cell Death via CD44-Mediated Signaling Pathways. *Int. J. Cell. Biol*. 2015, 614297. doi: 10.1155/2015/614297. PMID: 26448755
35. S Balaji, N Han, C Moles, AF Shaaban, **PL Bollyky,** TM Crombleholme, and SG Keswani. Angiopoietin-1 Improves Endothelial Progenitor Cell Dependent Neovascularization in Diabetic Wounds**.** *Surgery*. 2015, Sep;158(3):846-56. PMID: 26266763

36. N Nagy, Gernot Kaber, PY Johnson, JA Gebe, A Preisinger, BA Falk, MD Gooden, RB Vernon, M Bogdani, HF Kuipers, AJ Day, DJ Campbell, TN Wight and **PL Bollyky**. Inhibition of Hyaluronan Synthesis Restores Immune Tolerance During Autoimmune Insulitis**.** *Journal of Clinical Investigation*. 2015, Oct 1;125(10):3928-40. doi: 10.1172/JCI79271. PMID: 26368307
37. PR Secor, LA Michaels, JM Sweere, PK Singh, WC Parks, and **PL Bollyky.** Filamentous bacteriophage organize the Pseudomonas aeruginosa biofilm matrix into a liquid crystal. *Microbial Cell*. 2016. Jan 3 (1) 49-52. 10.15698/mic2016.01.475. PMID: 28357315
38. PR Secor, JM Sweere, LA Michaels, AV Malkovskiy, J Rajadas, D Lazzareschi, E Katznelson, A Arrigoni, KR Braun, SP Evanko, W Kaminsky, PK Singh, WC Parks, and **PL Bollyky**. Filamentous bacteriophage promote biofilm assembly and antibiotic tolerance. *Cell Host & Microbe*. 2015, Nov 11;18(5):549-59. PMID: 26567508
39. S Balaji, CA King, M Kidd, MC Watson, R Ranjan, **PL Bollyky**, SG Keswani: "Chemokine Involvement in Fetal and Adult Wound Healing". *Advances in Wound Care.* 2015. Nov 1;4(11):660-672 PMID: 26543680.
40. S Ruppert, A Arrigoni, TN Wight, TH Hawn, and **PL Bollyky**. High Molecular Weight Hyaluronan-mediated tissue integrity recognition and the resolution of inflammation *Immunology Research*. 2014, May;58(2-3):186-92. PMID: 24614953.
41. M Bogdani, S Potter-Perigo, P Johnson, AJ Day, N Nagy, **PL Bollyky**, TN Wight. The Extracellular Matrix Component Hyaluronan Accumulates in Human Type 1 Diabetic Islets and Lymphoid Tissues and Associates with Inflammatory Cells in Insulitis. *Diabetes*. 2014, 63(8):2727-43. PMID: 24677718.
42. S Balaji, M LeSaint, SS Bhattacharya, C Moles, Y Dhamija, M Kidd, LD Le, A King, A Shaaban, TM Crombleholme, **PL Bollyky**, and SG Keswani: "Adenoviral Mediated Gene Transfer of IGF-1 Enhances Wound Healing and Induces Angiogenesis. *J. Surg. Res.* 2014, Jul;190(1):367-77. PMID: 24725678
I contributed to data analysis and interpretation. I also helped edit the manuscript.
43. Balaji, CM Moles, SS Bhattacharya, M LeSaint, Y Dhamija, LD Le, A King, M Kidd, MF Bouso, A Shaaban, TM Crombleholme, **PL Bollyky**, SG Keswani: "Comparison of IL-10 Homologs on Dermal Wound Healing Using a Novel Human Skin *Ex Vivo* Organ Culture Model". *J. Surg. Res.* 2014,190(1):358-66. PMID: 24814764
44. JB Bollyky, SA Long, **PL Bollyky**, M Fitch, M Rieck, S Sanda, D Tridgell, MK Hellerstein, JH Buckner, CJ Greenbaum. Evaluation of in vivo T cell kinetics: use of heavy isotope labeling. *Clinical and Experimental Immunology,* 2013, Jun;172(3):363-74. PMID: 23600824
45. **PL Bollyky,** RB Vernon, A Preisinger, MD Gooden, GT Nepom, JA Gebe. IL-10 induction from implants delivering pancreatic islets and hyaluronan. *J. Diabetes Research.* 2013, 2013:342479. PMID: 23971054
46. TJ Bollyky, **PL Bollyky**. Obama and the promotion of international science. *Science,* 2012 Nov 2;338(6107):610-2.
47. SP Evanko, S Potter-Perigo, **PL Bollyky**, GT Nepom, TN Wight. T lymphocyte interactions with extracellular matrix of myofibroblasts: A role for versican in modulating hyaluronan effects on T cell migration. *Matrix Biology,* 2012, Mar;31(2):90-100. PMID: 22155153
48. RB Vernon, A Preisinger, MD Gooden, LA D'Amico, **PL Bollyky,** BB Yue, CS Kuhr, TR Hefty, GT Nepom, JA Gebe. Reversal of Diabetes in Mice with a Bioengineered Islet Implant Incorporating a Type I Collagen Hydrogel and Sustained Release of Vascular Endothelial Growth Factor. *Cell Transplantation*, 2012, 21(10):2099-110. PMID: 22469210
49. **PL Bollyky**, M Bogdani, JB Bollyky, RL Hull, TN Wight. The role of hyaluronan and the extracellular matrix in islet inflammation and immune modulation. *Curr. Diab. Rep*. 2012 Oct;12(5):471-80. PMID: 2281095
50. **PL Bollyky**, RP Wu, BA Falk, JD Lord, SA Long, A Preisinger, B Teng, GE Holt, NE Standifer, KR Braun, PL Samuels, RB Vernon, JA Gebe, TN Wight, GT Nepom, Extracellular matrix components guide induction of IL-10 producing regulatory T-cells (TR1) from effector memory T-cell precursors**.** *Proc. Natl. Acad. Sci. USA*, 2011, May 10;108(19):7938-43. PMID: 21518860, PMCID: PMC3093524
51. SA Long, M Rieck, M Tatum, **PL Bollyky**, RP Wu, I Muller, JC Ho, HG Shilling, JH Buckner. Low-Dose Antigen Promotes Induction of FOXP3 in Human CD4+ T Cells. *J Immunol*. 2011, Oct 1;187(7):3511-20. PMID:21865550
52. X Ge, J Gebe, **PL Bollyky**, EA James, J Yang, L Stern, WW Kwok. Peptide-MHC Cellular Microarray with Innovative Data Analysis System for Simultaneously Detecting Multiple CD4 T-Cell Responses. *PlosONE*. 2010, Jun 28;5(6). PMID: 20634998, PMCID: PMC2902358
53. **PL Bollyky**, SP Evanko, RP Wu, S Perigo, SA Long, B Kinsella, H Reijonen, K Guebtner, B Teng, CK Chan, KR Braun, J Gebe, GT Nepom, and TN Wight. TH1 cytokines promote hyaluronan production by

antigen presenting cells and accumulation at the immune synapse. *Cell. Mol. Immunol.* 2010, May;7(3):211-20. PMID: 20228832, PMCID: PMC3027489

54. AS Long, K Cerosaletti, **PL Bollyky**, M Tatum, H Shilling, S Zhang, ZY Zhang, C Pihoker, S Sanda, C Greenbaum, JH Buckner. Defects in IL-2R signaling contribute to diminished maintenance of FOXP3 expression in CD4+CD25+ regulatory T cells of T1D subjects. *Diabetes*, 2010, Feb;59(2):407-15. PMID: 19875613, PMCID: PMC2809970
55. X Ge, V Tan, **PL Bollyky**, NE Standifer, EA James, WW Kwok, Assessment of seasonal influenza A specific CD4 T-cell responses to 2009 pandemic H1N1 swine-origin influenza A virus. *J. Virol.,* 2010, Apr;84(7):3312-9. PMID: 20071564; PMCID: PMC2838145
56. **PL Bollyky**, BA Falk, RP. Wu, JH Buckner, and GT Nepom. Intact Extra-Cellular Matrix and the Maintenance of Immune Tolerance: High Molecular Weight Hyaluronan Promotes Persistence of Induced CD4+CD25+ Regulatory T-cells. *J. Leukocyte Biol.* 2009, Sep;86(3):567-72. PMID: 19401397, PMCID: PMC2735281
57. **PL Bollyky**, BA Falk, AS Long, KR Braun, RP Wu, SP Evanko, JH Buckner, TN Wight, GT Nepom. CD44 cross-linking promotes regulatory T-cell function and production of IL-10 and TGF-beta. *J Immunol*. 2009, Aug 15;183(4):2232-41. PMID: 19635906, PMCID: PMC3057032
58. **PL Bollyky**, JB Bice, IR Sweet, BA Falk, JA Gebe, AE Clark, VH Gersuk, A Aderem, TR Hawn, GT Nepom. The toll-like receptor signaling molecule Myd88 contributes to pancreatic beta-cell homeostasis in response to injury. *PLOS-One* 2009, 4(4):e5063. PMID: 19357791. PMCID: PMC2666970.
59. **PL Bollyky**, JD Lord, SA Masewicz, SP Evanko, JH Buckner, TN Wight, GT Nepom. High Molecular Weight Hyaluronan Promotes the Suppressive Effects of CD4+CD25+ Regulatory T Cells. *Cutting Edge; J Immunol*. 2007, Jul 15;179(2):744-7. PMID: 17617562
60. **PL Bollyky**, SB Wilson. CD1d-restricted T-cell subsets and dendritic cell function in autoimmunity. *Immunol Cell Biol.* 2004, 82(3):307-14. PMID: 15186262
61. SB Wilson, SC Kent, HF Horton, **PL Bollyky**, DA Hafler, JL Strominger and MC Byrne. Multiple differences in gene expression in regulatory Vα24JαQ T cells from identical twins discordant for type 1 diabetes. *Proc Natl Acad Sci U S A*. 2000, Jun 20;97(13):7411-6. PMID: 10840051, PMCID: PMC16559
62. **PL Bollyky**, EC Holmes. The complex evolutionary history of hepatitis B virus. *Journal of Molecular Evolution,* 1999, 49(1):130-41.
63. **PL Bollyky**, A Rambaut, PH Harvey and EC Holmes Recombination between sequences of hepatitis B virus from different genotypes. *Journal of Molecular Evolution,* 1996, 42:97-102

Peer Reviewed Reviews:

1. Secor PR, Burgener EB, Kinnersley M, Jennings LK, Roman-Cruz V, Popescu M, Van Belleghem JD, Haddock N, Copeland C, Michaels LM, de Vries CD, Chen Q, Pourtos J, Wheeler TJ ,Milla CE, and **Bollyky PL**. Pf bacteriophage and their Impact on Pseudomonas Virulence, Mammalian Immunity, and Chronic Infections. *Frontiers in Immunology*. 2020. *11:244. doi: 10.3389/fimmu.2020.00244*
2. E Steen, X Wang, S Balaji, MJ Butte, **PL Bollyky**, SG Keswani. The Role of the Anti-Inflammatory Cytokine IL-10 in Tissue Fibrosis. *Advances in Wound Care*. 2020.184-198 https://doi.org/10.1089/wound.2019.1032
3. A Górski, **PL Bollyky**, M Przybylski, J Borysowski, R Miedzybrodzki, E Jończyk-Matysiak, B Weber-Dąbrowska. Beyond bacteria: perspectives of phage therapy in viral and fungal infections. *Frontiers in Microbiology.* 2019 Jan 9;9:3306. doi: 10.3389/fmicb.2018.03306. PMID:30687285.
4. JD Van Belleghem, K Dąbrowska, M Vaneechoutte, JJ Barr and **PL Bollyky**. Interactions between Bacteriophage, Bacteria, and the Mammalian Immune System. *Viruses.* 2018 Dec 25;11(1). pii: E10. doi: 10.3390/v11010010. PMID: 30585199
5. S Ziatabar, J Zepf, S Rich, B Danielson, **PL Bollyky**, and R Stern. Chitin, chitinases, and chitin lectins: emerging roles in human pathophysiology. *Pathophys*. 2018 Mar 6. pii: S0928-4680(18)30023-3. doi: 10.1016 PMID:30266339
6. M Grandoch, **PL Bollyky**, JW Fischer Hyaluronan: a master switch between vascular homeostasis and inflammation. *Circulation Research*. 2018 May 11;122(10):1341-1343. PMID:29748364
7. JA Mooney, EM Pridgen, R Manasherob, G Suh, HE Blackwell, AE Barron, **PL Bollyky**, SB Goodman, DF Amanatullah. Bacterial Biofilm and Quorum Sensing in Periprosthetic Joint Infections. *Journal of Orthopedic Research.* 2018 Apr 16. doi: 10.1002/jor.24019. PMID:29663554
8. N Nagy, HF Kuipers, P Marshall, E Wang, G Kaber, and **PL Bollyky**. Hyaluronan in Autoimmunity and Immune Dysregulation. *Matrix Biology.* 2018 Apr 3. pii: S0945-053X(17)30440-7. PMID:29625181

9. CO Medina, N Nagy, **PL Bollyky**. Extracellular Matrix and the Maintenance and Loss of Peripheral Immune Tolerance in Autoimmune Insulitis. *Curr Opin Immunol*. 2018. 55:22-30. doi: 10.1016/ j.coi.2018.09.006. PMID:30248522
10. K Yadava, **P Bollyky**, MA Lawson. The formation and function of tertiary lymphoid follicles in chronic pulmonary inflammation. *Immunology*. 2016 Jul 21. doi: 10.1111/imm. PMID: 27441396
11. N Nagy, HF Kuipers, AR Frymoyer, H Ishak, JB Bollyky, TN Wight, and **PL Bollyky**. 4-Methylumbelliferone Treatment and Hyaluronan Inhibition as a Therapeutic Strategy in Inflammation, Autoimmunity, and Cancer. *Frontiers in Immunology*. 2015. Mar 23;6:123. doi: 10.3389/fimmu.2015.00123. PMID: 25852691

Peer Reviewed Case Reports:

1. R Hsi, **PL Bollyky,** TJ Walsh. Isolated infection of a decommissioned penile prosthesis reservoir with Actinomyces neuii *J. Sex. Med.,* 2011 Mar;8(3):923-6. Case Report.
2. **PL Bollyky**, Czartoski, TJ, Limaye A. Histoplasmosis presenting as an isolated spinal cord lesion. *Arch Nuerol.,* 2006, 63(12):1802-3. Case Report.

Book Chapters:

1. S Balaji, N Han, A King, **PL Bollyky**, and SG Keswani, Hyaluronan in Fetal and Pediatric Skin Scarring. In *Facial Plastics* (2015).
2. EC Holmes, **PL Bollyky**, S Nee, A Rambaut, GP Garnett and PH Harvey. Using phylogenetic trees to reconstruct the history of infectious disease epidemics. In *New Uses for New Phylogenies* (Ed. P.H.Harvey) Oxford University Press (1996).

Pre-Prints

1. S Balaji, E Steen, X Wang, H. Vangapandu, N Templeman, AJ Blum, CM Moles, DA Narmoneva, TM Crombleholme, MJ Butte, **PL Bollyky**, SG Keswani. IL-10 Promotes Endothelial Progenitor Cell Driven Wound Neovascularization and Enhances Healing via STAT3. bioRxiv 760165; doi: https://doi.org/10.1101/760165
2. MS Bach, JM Sweere, C De Vries, EB Burgener, S Balaji, S Keswani, M Birukova, V Sunkari, GA Suh, **PL Bollyky**. Pf Bacteriophage Promote Delayed Healing in *Pseudomonas aeruginosa* Human Wound Infections * Co-senior authors. bioRxiv 2020.03.10.985663; doi: https://doi.org/10.1101/2020.03.10.985663
3. EB Burgener, PR Secor, MC Tracy, JM Sweere, EM Bik, CE Milla, **PL Bollyky**. Methods for Extraction and Detection of Bacteriophage DNA from the Sputum of Patients with Cystic Fibrosis. bioRxiv 2020.03.10.986638; doi: https://doi.org/10.1101/2020.03.10
4. N Nagy, G Kaber, MJ Kratochvil, HF Kuipers, SM Ruppert, K Yadava, J Yang, SC Heilshorn, SA Long, A Pugliese**, PL Bollyky**. Sustained Release of IL-2 Using an Injectable Hydrogel Prevents Autoimmune Diabetes. bioRxiv 2020.03.15.993063; doi: https://doi.org/10.1101/2020.03.15.993063

CURRENT RESEARCH SUPPORT:

U01 AI101984 (Bollyky, PL) 06/01/2012 – 05/30/2022
NIH/ NIAID;
Tissue Cytokine Sequestration and Immune Regulation in Autoimmunity.
Role: PI

R01 DK096087-07 (Bollyky, PL) 09/01/2012 – 08/30/2023
NIH/NIDDK
Lymph Node Extracellular Matrix in Antigen Presentation and Immune Regulation
Role: PI

1R01 DK114174-01A1 (Bollyky, PL) 04/01/2018- 03/31/2021
NIH NIDDK
The Development of 4-methylumbelliferone Pro-drugs to Prevent Autoimmune Diabetes.
Role: PI.

R01 DK116782-01A1 Bollyky (PI) 04/01/2020 - 03/31/2025
NIH NIDDK

The Role of Hyaluronan and CD44 in the Pathogenesis of Type 2 Diabetes
Role: PI

R01 GM111808 Keswani (PI) 04/01/2014 - 03/31/2025
NIH/NIGMS
Novel Mechanisms of Regenerative Tissue Repair
Role: Co-I

R01 HL148184-01 (Milla, C) 07/01/2019-06/30/2023
NIH NHLBI
Pathogenesis of Pf Bacteriophages in Pseudomonas Cystic Fibrosis Lung Infections
Role: Co-I

R01 AI12492093 (Secor PR) 10/01/2018- 09/31/2023
NIH-NIAID
Immunization against filamentous bacteriophages to prevent bacterial infection
Role: Co-I

2018-DADL Amanatullah (PI) 09/01/2018-08/31/2020
Osteosynthesis and Trauma Care Fdn
Antibiotic-Bacteriophage Synergy in Orthopedic Implant-related Infection
Role: Co-Investigator

2020-OREF Amanatullah (PI) 04/01/2020-03/31/2023
Orthopaedic Research and Education Foundation
Attacking Biofilm-associated Persister Cells
Role: Co-Investigator

Innovation Grant (Bollyky PL) 01/07/2020-01/06/2022
Stanford SPARK
Development of Monoclonal Antibodies Targeting CD44 Variant Isoforms
Role: PI

Transformative Research Award (Bollyky, PL) 11/31/2017 – 1/30/2020
Falk Medical Research Trust
Targeting Bacteriophage to Treat *Pseudomonas* Biofilm Infections.
Role: PI

COMPLETED RESEARCH SUPPORT

1. K08 DK080178-05 (Bollyky, P); NIH/NIDDK. 09/01/2007–09/01/2012
   Extracellular Matrix and the Regulation of Adaptive Immune Responses.
   Role: PI
2. R03 DK089128-02 (Bollyky, P); NIH/NIDDK 09/01/2010–09/01/2012
   Extracellular Matrix and the Regulation of Adaptive Immune Responses.
   Role: PI
3. Pilot and Feasibility Award (Bollyky, P); UW Diabetes Research Council. 070/1/2012–01/01/2013
   Hyaluronan and Islet Regeneration During Inflammation.
   Role: PI
4. 1R43HL114214-01 (Fanger, N); NIH-NHLBI 08/01/2012–07/31/2013
   A Novel Tolerance Therapeutic to Treat Asthma.
   Role: Co-I
5. 1R43AI104104-01A1 (Fanger, N); NIH-NHLBI 08/01/2012-07/31/2013
   A Novel Tolerance Therapeutic for Allergic Rhinitis.
   Role: Co-I
6. U19 AI057229; Stanford Institute for Immunity, Transplantation and Infection. 07/01/2013–06/30/2014

Inflammatory and Mechanical Cues for T Cell Activation in Type 1 Diabetes.
Role: Co-I

7. Pilot Grant - National Multiple Sclerosis Society (Bollyky, P) 10/01/2015–09/31/2016
Heparanase and Regulatory T cell Function in Multiple Sclerosis.
Role: PI
8. SPARK Innovation Grant (Bollyky P); 01/1/2014-03/31/2016
Repositioning Hymecromone for Treatment and Prevention of Type 1 Diabetes.
Role: PI
9. R01 HL113294-01A1 (Bollyky, P); NIH/NHLBI 06/15/2012–06/14/2017
ECM Costimulation of Immunoregulatory Pathways in Airway Inflammation
Role: PI
10. Catalyst Research Award (Bollyky, P); Falk Medical Research Trust 09/31/2015–09/30/2016
Targeting Bacteriophage to Treat *Pseudomonas* Biofilm Infections.
Role: PI
11. Innovation Grant (Bollyky P); Stanford SPARK 01/01/2015-01/31/2016
Bacteriophage and *Pseudomonas aeruginosa* Infections.
Role: PI
12. Grand Challenges Award (Bollyky P); Bill and Melinda Gates Foundation 04/31/2016-08/30/2017
Bacteriophage and The Physical Structure of the Microbiota in Gut Health.
Role: PI
13. Karius, Inc. (Montoya, J) 04/01/2016-03/31/2017
Shotgun sequencing for etiologic diagnosis of febrile neutropenia
Role: Co-I
14. Larry L. Hillblom Foundation, Inc 07/01/2014-06/01/2017
Extracellular matrix and immune regulation in wound healing of diabetic patients
Role: PI
15. U01 AI101984 (Bollyky, P); NIH/ NIAID; 05/31/2017-12/31/2017
Engineering Human IL-2 with Improved Pharmacokinetics.
Role: PI
16. Pilot and Feasibility Award (Bollyky, P); Stanford Diabetes Research Center 12/31/2016-12/31/2017
The Development of 4-MU Analogs to Prevent Autoimmune Diabetes
Role: PI
17. SPARK Innovation Grant (Bollyky, P); Stanford SPARK 01/01/2014-12/31/2017
Repositioning Hymecromone for Treatment and Prevention of Type 1 Diabetes
Role: PI
18. R21AI133370, (Bollyky P); NIH-NIAID 05/31/2017-05/30/2018
Bacteriophage in *Pseudomonas aeruginosa* wound Infections.
Role: PI
19. 1-SRA-2018-518-S-B Innovation Award (Bollyky, P); JDRF 10/01/2017-10/01/2019
The Development of 4-MU Pro-Drugs to Prevent Autoimmune Diabetes
Role: PI
20. Harrington Scholar Innovator Award (Bollyky, P) 03/01/2016-03/01/2019
A Novel Therapeutic for Type 1 Diabetes
Role: PI
21. R01-GM111808. (Keswani SG). NIH/NIGMS 07/1/2014 - 06/30/2019
Novel Mechanisms of Regenerative Wound Healing
Role: Co-I
22. R01 GM110482-01 (Butte MJ), NIH/NIGMS 04/01/2014-03/31/2019
Influences of nanomechanical forces on T cells
Role: Co-I
23. Research Grant (Bollyky, PL), Cystic Fibrosis Foundation 11/01/2017-10/31/2019
Pf Bacteriophages in the Pathophysiology of *Pseudomonas aeruginosa* Infection
Role: PI
24. 5U01AI130830-02 CGDAP Pilot Award (Bollyky P) 11/31/2017-11/30/2019
Viral IL-10 and T-cell Exhaustion in Human Autoimmune Diabetes.
Role: PI

25. R21AI137432 (Bollyky, PL), NIH-NIAID 04/01/2018- 03/31/2020
Pf Bacteriophages in the Pathophysiology of Cystic Fibrosis and *P. aeruginosa* Infection.
Role: PI
26. R21AI133240 (Bollyky, PL), NIH-NIAID 04/01/2018- 03/31/2020
Heparanase and Regulatory T cell Stability and Function
Role: PI

CLINICAL TRIALS

A Study of Oral Hymecromone to Treat Adults With Primary Sclerosing Cholangitis. IND: 131155, ClinicalTrials.gov Identifier: NCT02780752. Role: PI, IND holder

AWARDED PATENTS

- METHOD OF REDUCING SCAR FORMATION IN HEALING OF DERMAL WOUNDS BY ADMINISTERING INTERLEUKIN-10 AND HYALURONAN. S Keswani, P Bollyky, T Crombleholme. US Patent 10,098,929, Filed: 8/2/2014, US20150037279A1 awarded 10/16/2018.
- 4-METHYLUMBELLIFERONE TREATMENT FOR IMMUNE MODULATION. N Nagy, H. Kuipers, P Bollyky, T Wight. U.S. Patent Application No. 15/870,755. International Patent Application No. PCT/US2014/50770 Filed 8/12/2014. Awarded 3/28/2019.
- 4-METHYLUMBELLIFERONE DERIVATIVES FOR TREATMENT FOR IMMUNE MODULATION, N. Nagy, J. Rajadas, and P.Bollyky, U.S. Patent No. 10370400, filed January 13, 2015. Awarded 8/6/2019.

EDITORIAL SERVICE

Editorial Positions:
Frontiers in Immunology (Associate Editor), Frontiers in Microbiology (Associate Editor)
Ad Hoc Reviewer:
Advances in Wound Care, Biomaterials, BMC Microbiology, British Journal of Nutrition, British Journal of Pharmacology, Cancer Cell International, Cell Biology and Toxicology, Clinical Science, eLife, EBioMedicine, European Polymer Journal, Experimental Cell Research, Frontiers in Bioscience, Frontiers in Immunology, Gene, Glycobiology, JACI, JCI, JCI Insight, JEM, Journal of Family Medicine & Community Health, Journal of Histochemistry and Cytochemistry, Journal of Innate Immunity, Leukemia Research, Matrix Biology, Molecular Biology and Evolution, PLosGenetics, PlosONE, PNAS, Proteomics, Soft Matter, Science Advances, The Surgery Journal, Vaccines

SERVICE AS A GRANT REVIEWER:

NIH Grant Review
- NIH Lung Cellular, Molecular, and Immunobiology (LCMI) Study Section; Ad Hoc member *2/2020*
- NIH NIDDK R01, PAR17-123: Biomarkers for Diabetes, Digestive, and Kidney Diseases, *2019, 2020*
- NIH NIDDK R01, PAR18-042: Ancillary Studies to Major Ongoing Clinical Research Studies, *2018, 2019*
- NIH NIDDK X01, PAR17-270: NIDDK Central Repositories Non-Renewable Sample Access, *2018*
- NIH NIDDK P01, PAR 18-405; NHLBI Program Project Applications, *2018*
- NIH NIDDK Diabetic Complications Consortium (DiaComp) Pilot & Feasibility Grants, *2017, 2018*
- NIH NIAID U01, PAR-16-270: NIAID Clinical Trial Implementation Cooperative Agreement, *2017*
- NIH NIAID R01, DK17-004: Competitive Collaborative Projects for Human Islet Biology, *2017*
- NIH NIDDK DP3, DK-15-018. Understanding the Pathogenesis and Etiology of Type 1 Diabetes Using Biosamples and Subjects from Clinical Studies, *2016*
- NIH NIDDK R01; PAR-13-228. Biomarkers for Diabetes, Digestive, and Kidney Diseases, *2014, 2015*
- NIH NIDDK DP3; DK-13-009. Type 1 Diabetes TrialNet Clinical Network Hub, *2014*
- NIH NIDDK DP3, PAR-13-013. Research Using Biosamples from Selected T1D Clinical Studies, *2013*

Non-NIH Grant Review
- Chan-Zuckerberg Biohub; COVID-19 Catalyst Fund, *2020*
- The Wellcome Trust, *2019*
- National Science Center of Poland, *2019*
- Congressionally Directed Medical Research Program, *2018, 2019, 2020*

• The U.S. Army Medical Research and Materiel Command (USAMRMC), Military Infectious Diseases Research Program (MIDRP), *2019*
• Israel Science Foundation, ad hoc reviewer, *2017*
• Action Medical Research for Children, ad hoc reviewer, *2017*
• The Wellcome Trust/DBT India Alliance Fellowship, *2016*
• Diabetes UK, ad hoc reviewer, *2014*
• Quatari Foundation, ad hoc reviewer, *2014*
• Austrian Science Fund (FWF), ad hoc reviewer, *2013*
• JDRF Training Awards Review Committee, *2013, 2014, 2015, 2016*

Internal Grant Review
• Children's Health Research Institute Grant Review Committee, *2015-present*
• Bio-X Grant Review Committee, *2018-present*
• Stanford Rhodes and Marshall Scholar Selection Committee, *2014-present*

UNIVERSITY SERVICE:

Leadership Positions
• Executive Committee Member, Stanford Immunology Program, *2017-present*
• Co-Director, Stanford Translational Investigator Program (TIP), *2018-present*
• Director of the Immunology Concentration Major for Medical Students, *2017-present*
• Co-Section Chief; Immunology and Transplant Group, Stanford Diabetes Research Center, *2017-2020*
• Stanford University Administrative Panel on Biosafety (APB), *2017-present*
• Co-Chair; Immunology Program Retreat, Stanford University, *2014, 2015*
• Stanford University Administrative Panel on Biosafety (APB), *2017-present*

Committee Service
• Medical Scientist Training Program (MSTP) Admissions Committee, Stanford University, *2015-2019*
• Stanford Immunology Graduate Training Program Admissions Committee, *2015-present.*
• Stanford Microbiology & Immunology Graduate Training Program Admissions Committee, *2015-present.*
• Stanford Translational Investigator Program (TIP) Interviewer, *2015-present*
• Stanford Adult Infectious Diseases Fellowship Interview Committee, *2013.*
• Stanford Rhodes and Marshall Scholar Selection Committee, *2014-present*
• Administrative Panel on Biosafety *2019-present*

Teaching
• Course director for Immunology Translational Immunology (IMM-209), *2018-present*
• Course director for Immunology Immunology Seminars (IMM-210), *2018-present*
• Co-course director; Immunology of Infectious Diseases (BIOS-245), *2016*
• Lecturer, Stanford Translational Immunology (IMM-209), *2014-18*
• Instructor, Stanford Medical School Human Immunology (IMM-205/M&I-205), *2014-17*
• Lecturer, Stanford Graduate Immunology II (IMM-202), *2014-19*
• Faculty Facilitator, Stanford Medical School Developmental Biology (DB-201), *2016*
• Instructor, Post-Doc Grant Writing Workshop, Stanford University, *2016*
• Lecturer, Stanford EXPLORE program, *2014-15*
• Instructor, UW Collaborations to Understand Research and Ethics Program, *2010-11*
• Instructor. Infectious Diseases, Immunology, UW Medex Course, *2006-08.*
• Instructor, Human Pathophysiology, Harvard Medical School, *2002-03*.

Mentorship
• Faculty Athletics Fellow, Women's Rowing, Stanford University, *2017-18*
• Faculty Advisor, Stanford Biosciences SOAR Program, *2013-15*
• Undergraduate Student Mentor, Stanford University, *2013-15*
• Pre-Med Advisor, Leverett House, Harvard College, *1998-99*

TRAINEES:

Present Post-Doctoral Trainees

• Michael Kratochvil, PhD, *2016-present*
• Ievgen Koliesnik, PhD, *2018-present*
• Jonas Van Bellegham, PhD, *2018-present*
• Christiaan De Vries, MD, PhD, *2018-present*
• Kevin Chen, PhD, *2019-present*

Past Post-Doctoral Trainees and Position Immediately After Training
• Elizabeth Burgener, MD*, 2015-2018,* Instructor, Stanford University
• Hedwich Kuipers, PhD*, 2015-2018,* Assistant Professor; University of Calgary
• Shannon Rupert, PhD. *2013-2015,* Senior Scientific Researcher at Genentech.
• Benjamin Danielson, PhD, *2015-2016,* Staff Scientist at Cero Pharmaceuticals
• Vivek Sunkari, PhD, *2013-2017,* Staff Scientist, Lake Pharmaceuticals
• Koshika Yadava, PhD, *2015-2017,* Post-Doctoral Fellow, Oxford University
• Xiou Cao, PhD, *2/2018-4/2018,* Scientist, Global Health Drug Discovery Institute (GHDDI)

Present Pre-Doctoral Trainees
• Payton Marshall, Immunology PhD Candidate*, 2016-present.*
• Graham Barlow*,* Immunology PhD Candidate*, 2017-present.*
• Medeea Popescu*,* Immunology PhD Candidate*, 2017-present.*
• Hunter Martinez*,* Immunology PhD Candidate*, 2017-present.*
• Naomi Haddock*,* Immunology PhD Candidate*, 2019-present.*
• Carlos Medina, Immunology PhD Candidate*, 2015-present*

Past Pre-Doctoral Trainees and Position Immediately After Training
• Maria Birukova, Stanford MSTP, *2016* (deceased – climbing accident).
• Jolien Sweere, Immunology PhD*; 2013-2018.* Associate, Charles River Consulting
• Kevin Meng, Immunology PhD*; 2013-2018.* Research Scientist, Kite Pharma

Past Undergraduate Trainees and Position Immediately After Training
• Brandon Teng; *2009*; MD candidate at OHSU.
• Jeffrey Bice; *2010*; MD candidate at Tulane University.
• Allison Arrigoni; *2011-12*; MD candidate at Tulane University.
• Sonia Hasbun;. *2012*; MD candidate at Midwestern University.
• Jason Yang; *2013-16;* Bioinformatics MS candidate, Stanford University
• Ethan Katznelson; *2014-16;* MD candidate at Harvard University.
• Omar Garcia, *2014-2015;* MD candidate at Stanford University
• Jasmine Edwards, RIT, *2015,* Immunology PhD Candidate, University of Miami
• Michelle Bach, *2016-19*, Research technician, UTSW medical school
• Dung Lam, 2017-18, Cellular Biology PhD Candidate, UC Santa Cruz

Past High School Trainees and Position Immediately After Training
• Aadyot Bhatnagar, *2015;* Undergraduate at CalTech
• Colin Lester, *2015, 2016;* Undergraduate at the University of Washington
• Chloe Fishman, *2016;* Undergraduate at the University of Wisconsin
• Jerry Gao, *2017;* Undergraduate at Columbia University
• Esther Wang, *2017*, Undergraduate at the University of Chicago
• Ciara Lee, *2017*, Undergraduate at the University of Rochester
• Sim Low, *2018*, Undergraduate at Johns Hopkins
• Quynh Tran, *2018*, Undergraduate at Brown University

Thesis Committee Service
• Mark Bruce; Immunology PhD, Stanford University; *2013-14*.
• Adi De la Zerda; Mechanical Engineering PhD, Stanford U.; *2013-18*
• Wenying Pan; Chemistry PhD, Stanford University; *2014-16*
• Ken Hu, Bioengineering PhD, Stanford University; *2015-17*
• Xioafan Jin, Bioengineering PhD, Stanford University; *2017-18*

- Kevin Meng; Immunology PhD, Stanford University; *2015-19*
- Geoff Stanley, Biophysics PhD, Stanford University*; 2014-19*
- Wai Srifa; Genetics PhD, Stanford University; *2016-present*
- Felix Horn; Biophysics PhD, Stanford University; *2019*
- Mark Kowarsky; Physics PhD, Stanford University; *2019*
- Caleb Glassmac; Immunology PhD, Stanford University*; 2018-present*
- Justin Arredondo-Guerrero; Immunology PhD, Stanford University*; 2019-present*
- Sarah Ruddle, Microbiology/Immunology, PhD, Stanford University*; 2019-present*
- Jared Honeycutt, Microbiology/Immunology, PhD, Stanford University*; 2019*

NON-INSTUTUTIONAL SERVICE

Leadership

- Co-Chair, International Society for Hyaluronan Sciences (ISHAS) International Meeting, *2021*
- Program Committee, Wound Healing Society Annual Meeting, *2016, 2017*
- Program Committee, ISHAS International Meeting, *2015*

Membership

- American Society of Clinical Investigators (ASCI), *2017-present*
- Immunology of Diabetes Society, Member*, 2016-present*
- International Society for Hyaluronan Sciences (ISHAS), Member, *2014-present*
- Wound Healing Society (WHS), Member, *2012-present*
- Western Society for Clinical Investigation (WSCI), Member, *2011-present*
- American Society for Matrix Biology (ASMB), Member, *2010-present*
- Mt. Rainier Infectious Disease Society of Western Washington, Member, *2010-present*
- Clinical Immunology Society (CIS), Member, *2007-present*
- Infectious Disease Society of America (IDSA), *2007-present*
- Massachusetts Medical Society; Member, *1997-present*

INVITED LECTURES AND PRESENTATIONS:

Recent External Lectures and Presentations

1. "Tri-kingdom interactions between bacteriophage, bacteria, and humans". iPath Seminar Series. San Diego, CA, 1/2020
2. "Novel pathogenic factors and therapeutic targets in wound infections". Keynote address: International Society for Pediatric Wound Care. Houston TX, 11/2019
3. "Bacteriophage and Chronic Wounds". NIH Workshop on Immune Mechanisms of Wound Healing in the Elderly. Bethesda, MD, *9/2019.*
4. "Bacteriophage Trigger Anti-Viral Immunity and Prevent Clearance of Bacterial Infection". Phages 2019. Oxford, England 9/2019.
5. "Hyaluronan Drives Mitochondrial Dysfunction and Beta-Cell Loss in Obesity-Associated Diabetes" 11th International Conference on Proteoglycans, Ishikawa Ongakudo, Japan, *9/2019*
6. "Bacteriophage as a novel pathogenic factor in bacterial infections". Evergreen Meeting, Evergreen State College, Olympia Washington, *8/2019*
7. "Bacteriophage as a novel pathogenic factor in bacterial infections". Symposium on Immunology of Human Diseases, Santa Fe, New Mexico, *7/2019*
8. "Bacteriophage as a novel pathogenic factor in bacterial infections". University of Washington /Fred Hutchinson Institute, Seattle, WA, *6/2019*
9. "Hyaluronan Drives Mitochondrial Dysfunction and Beta-Cell Loss in Obesity-Associated Diabetes", ISHAS, Cardiff, Wales, *6/2019*
10. "Tissue Integrity Cues and Extracellular Matrix Regulate Adaptive Immunity". Cleveland Clinic, Lerner Institute. Microbiology/Immunology Lecture Series, Cleveland, OH, *5/2019*.
11. "Inflamed Islet Extracellular Matrix Promotes Beta Cell Death". NIH Autoimmunity Prevention Summit; Bethesda, MD, *4/2019*.
12. "Bacteriophage in Biofilm Infections" Burroughs Wellcome Fund, Durham, NC, *4/2019*

Recent Internal Lectures and Presentations

1. “Bacteriophage as a novel pathogenic factor in lung infections”. Pulmonology Grand Rounds, Stanford University, Stanford CA, *10/2019*
2. “Bacteriophage as a novel pathogenic factor in biofilms infections”. TIPs Faculty Research Seminars, Stanford University, Stanford CA*, 10/2019*
3. “Bacteriophage and the Microbiome in Health and Disease”. Stanford Microbiome Summit, Stanford CA, *9/2019*
4. “Hyaluronan in Immune Tolerance to Heart Transplantation”. Stanford Cadiovascular Institute, Stanford CA, *8/2019*
5. “Bacteriophage as a novel pathogenic factor in wound infections”. Infectious Disease Grand Rounds, Stanford University, Stanford CA, *7/2019*

SELECTED MEDIA REPORTS:

1. Quand des phages s’allient avec des bactéries. By Alice Lebreton, LeMonde. 5/23/2019
2. Paul L. Bollyky: Focusing on Infectious Diseases. By Margie Bank. Today’s Science. 6/12/2019
3. Virus to Bacterium: Let's Just Be Friends. by Emilio Rodriguez. 5/18/2019
4. Unexpectedly pathogenic bacteriophages. This Week in Microbiology (TWIW) Podcast. 5/30/2019.
5. Viruses act as decoys, study finds, helping bacteria evade the immune system. By E. Boodman, *STAT.* 3/29/2019.
6. Virus tricks the immune system into ignoring bacterial infections. By Sara Reardon. *Nature*, 3/29/2019.
7. Bacteria partner with virus to cause chronic wounds. by Bruce Goldman. *Stanford Medicine News.* 3/29/2019
8. Phage treatment: The new weapon in antibiotic-resistant infections? *Becker’s Hospital Review*. By Harrison Cook. 6/25/2018
9. Can bacteria-slaying viruses defeat antibiotic-resistant infections? A new U.S. clinical center aims to find out. *Science*. By K. Servick – 6/21/2018
10. Beleaguered phage therapy trial presses on. *Science*. By K. Servick - 6/24/2016
11. Sticky Bacterial Biofilms Dissolve on Contact with Sugar-Cutting Enzymes. *Scientific American*. By D. Crow 8/1/2016
12. Diabetes points Stanford scientists toward old gallstone drug. In *San Francisco Business Times*. By Ron Leuty. *09/14/2015*
13. Drug prevents Type 1 diabetes in mice. *Stanford Medical Center Report.* By B. Goldman. *9/14/2015*
14. This pill prevents type 1 diabetes from developing in mice. *The Verge*. By L. Grush. *09/14/2015.*
15. Drug Prescribed For Gallstone-Related Spasms May Prevent Type 1 Diabetes. *Tech Times*, By Julienne Roman. *09/17/2015.*
16. Diabetes’ dawn of discovery: Why recent changes are fueling new interest. *San Francisco Business Times*. 10/16/2015 by Ron Leuty.
17. New pill prevents type 1 diabetes in mice, study finds. *Science Alerts*. By B. Crew. 09/16/2015.
18. Bacteria and bacteriophages collude in the formation of clinically frustrating biofilms. In *Phys.org*. by B. Goldman 11/12/2015
19. This discovery could lead to new lifesaving treatments for cystic fibrosis. *Inverse.com*, By Jacqueline Ronson. 11/11/2015.
20. Hacking a Bacteriophage’s Genome May Lead to a Cystic Fibrosis Treatment. *NOVA Next - PBS.org.* By D. Crow. 12/17/2015

COMMUNITY SERVICE:

- Assistant Scout Master – Boy Scouts of America, Troops 14 and 4014, Palo Alto, *2016-present*
- Manager/Coach, Palo Alto Little League, *2014-2016*
- Coach, AYSO U6 Girls Soccer, *2014, 2015*
- Child Care Provider, University Presbyterian Church, Seattle WA, *2008-12*
- Kindergarten Teacher, Hungarian School, Seattle WA, *2009-12*

INTERNATIONAL CLINICAL EXPERIENCES:

- Medical Rotation, Semmelweiss Medical College, Budapest, Hungary, *2000*
- Medical Student Rotation, Princess Marina Hospital, Gaborone, Botswana, *1999*
- Coordinator, Columbia U. Bosnian Refugee Relief Committee, Nagyatad, Hungary, *1993*
- Hospital Orderly, Magdalena Haigla, Tallinn, Estonia, *1992*

LANGUAGES:

- English.
- Hungarian (fluent)

CITIZENSHIP:

- U.S.
- Hungarian (EU)