Jordan V. Price

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Education

2013. **Ph.D.**, Program in Immunology, Stanford University
Laboratory of P.J. Utz, Department of Immunology & Rheumatology
Thesis: Evolution of Whole Protein and Peptide Microarray Platforms for Biological Discovery and Personalized Medicine

2005. **B.A. Biology, B.M. Cello Performance**, Oberlin College and Conservatory of Music

Professional Appointments

2017-2020. **Assistant Professor**, Oberlin College, Oberlin, OH
Department of Biology

2013-2017. **Postdoctoral Scholar**, University of California, Berkeley, CA
Laboratory of Russell Vance, Department of Molecular and Cellular Biology

2005-2007. **Academic Director and instructor of cello**, Franz Liszt Conservatory, Quito, Ecuador

Peer-reviewed Scientific Publications (Link to full publication list on PubMed)

18. **J.V. Price**, D. Russo, D.X. Ji, R.A. Chavez, L. DiPeso, A.Y. Lee, J. Coers, R.E. Vance. IRG1 and inducible nitric oxide synthase act redundantly with other interferon-gamma-induced factors to restrict intracellular replication of *Legionella pneumophila*. **2019**. *mBio*. Nov 12;10(6). doi: 10.1128/mBio.02629-19. PMID: 31719183.

17. **J.V. Price**, K. Jiang, A. Galantowicz, A. Freifeld, R.E. Vance. *Legionella pneumophila* is directly sensitive to 2-deoxyglucose-phosphate via its UhpC transporter but is indifferent to shifts in host cell glycolytic metabolism. **2018**. *J Bacteriol*. Jul 25;200(16). doi: 10.1128/JB.00176-18. PMID: 29784886**.**

16. L. DiPeso, D.X. Ji, R.E. Vance RE, **J.V. Price**. Cell death and cell lysis are separable events during pyroptosis. **2017**. *Cell Death Discovery*. Nov 13;3:17070. doi: 10.1038/cddiscovery.2017.70. PMID: 29147575.

15. J.R Lee, D.J. Haddon, N. Gupta, **J.V. Price**, G.M. Credo, V.K. Diep, K. Kim, D.A. Hall, E.C. Baechler, M. Petri, M. Varma, P.J. Utz, S.X. Wang. High Resolution Analysis of Antibodies to Post-Translational Modifications Using Peptide Nanosensor Microarrays. **2016**. *ACS Nano*. Sep 16. doi: 10.1021/acsnano.6b03786. PMID: 27636738.

14. J.R Lee, D.J. Haddon, H.E. Wand, **J.V. Price**, V.K. Diep, D.A. Hall, M. Petri, E.C. Baechler, I.M. Balboni, P.J. Utz, S.X. Wang. Multiplex giant magnetoresistive biosensor microarrays identify interferon-associated autoantibodies in systemic lupus erythematosus. **2016**. *Sci Rep*. Jun 9;6:27623. doi: 10.1038/srep27623. PMID: 27279139.

13. J.M. Rosenberg, **J.V. Price**, G. Barcenas-Morales, L. Ceron-Gutierrez, S. Davies, D.S. Kumararatne, R. Döffinger, P.J. Utz. Protein microarrays identify disease-specific anti-cytokine autoantibody profiles in the landscape of immunodeficiency. **2015**. *J Allergy Clin Immunol.* Sep 11; S0091-6749(15)01092-1. doi: 10.1016/j.jaci.2015.07.032. PMID: 26365387.

12. D.J. Haddon, J.A. Jarrell, V.K. Diep, H.E. Wand, **J.V. Price**, S. Tangsombatvisit, G.M. Credo, S. Mackey, C.L. Dekker, E.C. Baechler, C.L. Liu, M. Varma, P.J. Utz. Mapping epitopes of U1-70K autoantibodies at single-amino acid resolution. **2015**. *Autoimmunity*, Sep 3:1-11. doi: 10.3109/08916934.2015.1077233. PMID: 26333287.

11. D.J. Haddon, V.K. Diep, **J.V. Price**, C. Limb, P.J. Utz, I. Balboni. Autoantigen microarrays reveal autoantibodies associated with proliferative nephritis and active disease in pediatric systemic lupus erythematosus. **2015**. *Arthritis Res Ther,* Jun 17;17:162. doi: 10.1186/s13075-015-0682-6. PMID: 26081107.

10. **J.V. Price** and R.E. Vance. The Macrophage Paradox. **2014**. *Immunity,* Nov 20;41(5):685-93. doi: 10.1016/j.immuni.2014.10.015. PMID: 25517611. [REVIEW]

9. X. Tang, B. Zhang, J.A. Jarrell**, J.V. Price**, H. Dai, P.J. Utz and S. Strober. Ly108 expression distinguishes subsets of invariant NKT cells that help autoantibody production and secrete IL-21 from those that secrete IL-17 in lupus prone NZB/W mice. **2014**. *J. Autoimmunity,* May;50:87-98. doi: 10.1016/j.jaut.2014.01.002. PMID: 24508410.

8. **J.V. Price**, D.J. Haddon, D. Kemmer, G. Delepine, G. Mandelbaum, J.A. Jarrell, R. Gupta, I. Balboni, E.F. Chakravarty, J. Sokolove, A.K. Shum, M.S. Anderson, M.H. Cheng, W.H. Robinson, S.K. Browne, S.M. Holland, E.C. Baechler, P.J. Utz. Protein microarray analysis reveals BAFF-binding autoantibodies in systemic lupus erythematosus. **2013**. *The Journal of Clinical Investigation,* Dec 2;123(12):5135-45. doi: 10.1172/JCI70231. PMID: 24270423.

7. B. Zhang, J.A. Jarrell, **J.V. Price**, S.M. Tabakman, Y. Li, M. Gong, G. Hong, J. Feng, P.J. Utz, H. Dai. An integrated peptide-antigen microarray on plasmonic gold films for sensitive human antibody profiling. **2013**. *PLoS One,* Jul 29;8(7):e71043. doi: 10.1371/journal.pone.0071043. PMID: 23923050.

6. **J.V. Price**, J.A. Jarrell, D. Furman, N.H. Kattah, E. Newell, C.L. Dekker, M.M. Davis, P.J. Utz. Characterization of Influenza Vaccine Immunogenicity Using Influenza Antigen Microarrays. **2013**. *PLoS One,* May 29;8(5):e64555. doi: 10.1371/journal.pone.0064555. PMID: 23734205.

5. D. Furman, V. Jojic, B. Kidd, S. Shen-Orr, **J.V. Price**, J.A. Jarrell, T. Tse, H. Huang, P. Lund, H. Maecker, P.J. Utz, C.L. Dekker, D. Koller, M.M. Davis. Apoptosis and other immune biomarkers predict influenza vaccine responsiveness. **2013**. *Molecular Systems Biology,* Apr 16;9:659. doi: 10.1038/msb.2013.15. PMID: 23591775.

4. B. Zhang, **J.V. Price**, G. Hong, S.M. Tabakman, H. Wang, J.A. Jarrell, J. Feng, P.J. Utz, H. Dai. Multiplexed cytokine detection on plasmonic gold substrates with enhanced near-infrared fluorescence. **2013**. *Nano Research,* 6(2): 113-120. doi: 10.1007/s12274-012-0286-2.

3. **J.V. Price**, S. Tangsombatvisit, G. Xu, J. Yu, D. Levy, E.C. Baechler, O. Gozani, M. Varma, P.J. Utz, C.L. Liu. On silico peptide microarrays for high-resolution mapping of antibody epitopes and diverse protein-protein interactions. **2012**. *Nature Medicine*, Aug 19. doi: 10.1038/nm.2913. PMID: 22902875.

2. S.M. Tabakman, L. Lau, J.T. Robinson, **J.V. Price**, S.P. Sherlock, H. Wang, Z. Chen, S. Tangsombatvisit, J.A. Jarrell, P.J. Utz, H. Dai. Plasmonic substrates for multiplexed protein arrays with femtomolar sensitivity and broad dynamic range. **2011**. *Nature Communications*, Sep 13;2:466. doi: 10.1038/ncomms1477. PMID: 21915108.

1. M.H. Han, S.I. Hwang, D.B. Roy, D.H. Lundgren, **J.V. Price**, S.S. Ousman, G.H. Fernald, B. Gerlitz, W.H. Robinson, S.E. Baranzini, B.W. Grinnell, C.S. Raine, R.A. Sobel, D.K. Han, L. Steinman. Proteomic analysis of active multiple sclerosis lesions reveals therapeutic targets. **2008**. *Nature*, 451: 1076-1081. doi: 10.1038/nature06559. PMID: 18278032.

Peer-reviewed Science Education Publications

2. S.E. Brownell, **J.V. Price**, L. Steinman. Science Communication to the General Public: Why we need to teach undergraduate and graduate students this skill as part of their formal scientific training. **2013**. *Journal of Undergraduate Neuroscience Education,*12(1):E6-E10. PMID: 24319399. [EDITORIAL]

1. S.E. Brownell, **J.V. Price**, L. Steinman. A writing-intensive course improves biology undergraduates' perception and confidence of their abilities to read scientific literature and communicate science. **2013**. *Advances in Physiology Education,* Mar;37(1):70-9. doi: 10.1152/advan.00138.2012. PMID: 23471252.

Grants, Awards, and Fellowships

2018. Co-PI, National Science Foundation Major Research Instrumentation award #1828041, Acquisition of a Confocal Microscope for Student-Faculty Research and Research Training at Oberlin College.

2013. McDevitt Prize for outstanding research and academic performance in the PhD Program in Immunology at Stanford University.

2011-2012. Stanford Genome Training Program fellowship award.

2008-2011. National Science Foundation Graduate Research Fellowship Program (NSF GRFP) award.

Oral Presentations

2018. Invited lecture, John Carroll University, Cleveland, OH
"*Legionella* and The Macrophage Paradox: weaponizing metabolism to fight bacterial pathogens."

2018. American Association of Immunologists (AAI) meeting, Austin, TX
"Metabolic barriers underlie interferon gamma-mediated restriction of intracellular bacterial pathogenesis."

2015. UCB/UCSF Immunology research conference, Asilomar, CA
"Metabolic barriers to intracellular bacterial pathogenesis?"

2013. American Association of Immunologists (AAI) meeting, Honolulu, HI
"Influenza antigen microarrays reveal reactivity signatures associated with effective response to seasonal trivalent influenza vaccination"

2012. Federation of Clinical Immunologists Society (FOCIS) meeting, Vancouver, Canada
"Proteomic analysis of serum factor-reactive autoantibodies in human patient sera reveals physiologically active BAFF-binding autoantibodies in systemic lupus erythematosus"

2012. Symposium for Genomics and Personalized Medicine, Stanford, CA
"High-resolution epitope mapping using 'on silico' peptide microarrays"

2011. U19 Influenza Consortium meeting, Stanford, CA
"High-resolution epitope mapping using 'on silico' peptide microarrays"

2011. Stanford Immunology research conference, Asilomar, CA
"Serum factor protein microarray analysis of human patient sera reveals BAFF-binding autoantibodies in systemic lupus erythematosus"

2010. U19 Influenza Consortium meeting, Stanford, CA
"Seasonal/H1N1 Influenza peptide microarrays"

Poster Presentations

2018. Gordon Research Conference (GRC), Microbial Toxins and Pathogenicity, Waterville Valley, NH
"Macrophage metabolic restriction of *Legionella pneumophila*"

2018. American Association of Immunologists (AAI) meeting, Austin, TX
"Metabolic barriers underlie interferon gamma-mediated restriction of intracellular bacterial pathogenesis."

2016. HHMI Scientific Meeting, Chevy Chase, MD.
"Metabolic barriers underlie interferon gamma-mediated restriction of intracellular bacterial pathogenesis"

2016. Keystone Symposium: Immunometabolism, Banff, Canada
"Metabolic barriers to intracellular bacterial pathogenesis"

2015. Midwinter Conference of Immunologists at Asilomar**,** Pacific Grove, CA
"Characterizing the metabolic interaction of *Legionella pneumophila* with its protozoan and metazoan hosts"

2015. Henry Wheeler Center for Emerging and Neglected Diseases Symposium, Berkeley, CA
"Characterizing the metabolic interaction of *Legionella pneumophila* with its protozoan and metazoan hosts"

2013. American Association of Immunologists (AAI) meeting, Honolulu, HI
"Influenza antigen microarrays reveal reactivity signatures associated with effective response to seasonal trivalent influenza vaccination"

2012. American Association of Immunologists (AAI) meeting, Boston, MA

"Proteomic analysis of serum factor-reactive autoantibodies in human patient sera reveals physiologically active BAFF-binding autoantibodies in systemic lupus erythematosus"

Teaching and Mentoring

2017-2020. **Assistant professor** at Oberlin College responsible for teaching a core biology course, *Organismal Biology* and an upper-division biology course, *Immunity & Pathogenesis* and laboratories associated with these classes. Collaborated with Prof. Jan Cooper to develop an interdisciplinary course cluster, *Plagues, Pandemics, and Society*, exploring the biology of infectious diseases and their global impact on culture, art, government, policy and social justice. Served as an academic advisor. Mentored seven undergraduate students pursuing independent research in my laboratory, three of whom are published co-authors on peer-reviewed primary research articles.

2019. **Faculty leader** of Community-Based Environmental Studies: Hong Kong-U.S. Transnational Partnership and Exchange study trip to Hong Kong in January 2019. One of four faculty leaders of a Luce Initiative on Asian Studies (LIASE)-funded study trip with Oberlin undergraduates exploring community-based learning, environment, and public health.

2013-2017. **Individual mentor** for students and technicians at UC Berkeley.
Coordinated the research activities of two rotating graduate students and two undergraduate honors researchers in the laboratory of Russell Vance.

2014. **Guest lecturer** in "Plagues and Pandemics", UC Berkeley.
Developed and taught two lectures on HIV/AIDS biology and impact on human society for an intro-level undergraduate biology course of ~150 students.

2009-2013. **Individual mentor** for students and technicians at Stanford University.
Oversaw the research projects of one undergraduate researcher, three high school student summer research program participants, and four technicians in the laboratory of P.J. Utz.

2011-2012. **Consultant**, Stanford Center for Teaching and Learning.
Mentor and consultant for teaching assistants in all departments at Stanford University. Provided one-on-one teaching evaluations, small-group evaluations, and individualized workshops in teaching strategies. Provided oral and written feedback for graduate student teaching assistants.

2008-2010. **Course Developer and Instructor of Record**, *Brain and the Immune System*, Stanford University.
Developed and taught a lecture-based, writing-intensive course for Stanford undergraduate, graduate, and medical students investigating interaction of the immune and nervous systems in collaboration with Sara Brownell (now at Arizona State University) and professor Lawrence Steinman (Stanford). Designed course and syllabus, taught weekly discussion sections, lectured in the course, and guided students in weekly writing assignments and final projects that emphasized science communication. This course was offered for three years to ~20 students each year.

2009-2012. **Coordinating TA/Lecturer**, Stanford University Institutes of Medicine Research program (SIMR).
Reviewed and selected high school student applicants to the program, designed curriculum, and lectured on basic topics in immunology for ~30 students participating in an intensive nine-week summer research program.

2010-2012. **Coordinating TA/Lecturer**, Stanford University EXPLORE program.
Designed curriculum, lectured, and coordinated interactive workshops with Stanford Neuroscience Anatomy Lab, Digital Anatomy Lab, and microarray core for ~60 high school students participating in a six-week summer lecture series and research immersion experience.

2008-2012. **Graduate Teaching Assistant**, Stanford University Explorations program.
Designed and taught hands-on, daylong laboratory courses for groups of Stanford undergraduates (5-20 students/class) taking an introductory biology course. Designed two unique hypothesis-driven courses: "Monsters of the Deep" (investigating coral/dinoflagellate symbiosis) and "The Case of the Missing Immune System" (investigating the overlap between autoimmunity and immunodeficiency).

2007-2010. **Graduate Teaching Assistant**, Stanford University 49'ers Academy outreach program.
Collaborated with other graduate students to teach a bimonthly science lab course for ~70 7th and 8th grade students at a middle school in East Palo Alto.

2009. **Graduate Teaching Assistant**, Stanford University immunology course.
Designed problem sets, graded course work and taught a weekly section for 15 (of ~100) undergraduate students taking an upper-division immunology course.

2006-2009. **Coordinator and Teacher**. Festival de Instrumentistas de Cuerdas, an international music festival in Quito, Ecuador. Coordinated joint music festival with Oberlin Conservatory and Franz Liszt Conservatory bringing ~50 musicians from around Latin America to Quito to study and perform with students and faculty from Oberlin.

2005-2006. **Academic Director and Teacher**. Franz Liszt Conservatory, Quito, Ecuador.
Served as academic director of the conservatory, collaborated with an administrative team to develop and coordinate a K-12 musical study and performance curriculum, initiated and taught cello and chamber music programs, and coordinated outreach programs.

Service to Oberlin College

2018-2019. Member of the Gender, Sexuality, and Feminist Studies program committee.

2018-2019. Member of ad-hoc committee working to develop campus initiatives in Global Public Health.

2018-2019. Member of Oberlin College Biology Departmental Action and Reflection Team, part of a Howard Hughes Medical Institute (HHMI)-funded initiative to promote STEM inclusivity.

2018-2019. Member of Biology Department safety committee.

Professional Development

2018. National Academies Workshop on Inclusive Teaching, Yale/HHMI Summer Institutes on Scientific Teaching, Oberlin College. Participated in an intensive week-long workshop to develop skills in creating inclusive, student-centered learning environments.

2012. National Institute of General Medical Sciences (NIGMS) Workshop for Postdocs Transitioning to Independent Positions, Bethesda Maryland. Selected to participate in a two-day NIH workshop targeted at graduate students and postdocs planning careers in academia.

2011. Stanford University Cancer Biology and Immunology Diversity Symposium.
Presented poster and participated in career workshop and discussion of diversity in higher education.

2009. Stanford Journal of Law, Science and Policy Stem Cell Policy Symposium.
Collaborated with Stanford stem cell and law faculty and graduate student committee to invite experts in stem cell science and policy for a to discuss the future of policy governing stem cells and regenerative medicine.

Professional Organizations

2018-2020. American Society for Microbiology (ASM)

2010-2019. American Association of Immunologists (AAI)

Professional Musical Experience

2009-2016. **Cello section member**, Berkeley Symphony Orchestra (BSO).

2010-2012. **Cello section member and chamber ensemble musician**, Bay Area Rainbow Symphony (BARS).

2007-2010. **Chamber ensemble musician**, Stanford University chamber music program.

2009. **Chamber ensemble musician**, Stanford university commencement award ceremony.

2009. **Master class participant** for Bonnie Hampton, Professor of cello at the Juilliard School.

2008. **Invited teacher**, Napa Youth Symphony Orchestra.

2006-2009. **Coordinator and Performer**. Performed as a soloist and ensemble musician in concerts associated with the Festival de Instrumentistas de Cuerdas, an international music festival in Quito, Ecuador.