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## PROFESSIONAL EXPERIENCE

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<b>Assistant Professor</b> , <i>Brigham Young University</i> · Department of Microbiology and Molecular Biology	2012-present
<b>Research Instructor</b> , <i>Washington University Medical School</i> · Department of Pathology and Immunology	2009-2012
<b>Postdoctoral Research Fellow</b> , <i>Washington University Medical School</i> · Department of Pathology and Immunology	2005-2009

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## EDUCATION

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<b>Ph.D. in Cell and Structural Biology</b> , <i>University of Illinois</i>	2005
<b>M.S. in Zoology</b> , <i>Brigham Young University</i>	2000
<b>B.S. in Zoology</b> , <i>Brigham Young University</i>	1998

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## HONORS AND AWARDS

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BYU Translational Research Grant	2016
Member of the American Association of Cancer Researchers	2015-present
John A. Widtsoe Scholarly Grant	2015
BYU Mentoring Environment Grant	2014, 2015, 2017
BYU Teaching Enhancement Grant	2013, 2014, 2015, & 2016
NIH Academic Research Enhancement Award (R15)	2013-2016
MMBIO Research Award – Highest Impact Factor Journal Publication	2013
MMBIO Research Award – New Grant from the National Institute of Health	2013
Midwest Regional Center of Excellence Career Development Award	2009-2012
NIH Ruth L. Kirschstein Postdoctoral Fellow	2005-2008
Member of the American Association of Immunologists	2005-present
NIH Research Symposium Co-chair	2004
NIH Cell and Molecular Biology (CMB) training grant	2002-2004
Neuroscience Deans Fellow Scholarship	1999-2000
Member of the Golden Key Honor Society	1998
BYU Dean's List	Winter & Spring 1998
BYU Office of Research and Creative Activities Research Scholarship	1997
BYU Trustees Scholarship (4 years tuition)	1992-1993; 1995-1998

1. Johnston JD, Kruman BA, Nelson MC, Merrill RM, Graul RJ, Hoyberg TG, Tuttle SC, Myers S, Cook RB, **Weber KS** (2017) Evaluation of indoor dust endotoxin levels in homes with evaporative coolers compared to homes using central air conditioners in a semi-arid climate. *Indoor Air*. Jan 31, 2017 doi:10.1111/ina.12369
2. Townsend MH, Anderson MD, Weagel EG, Velazquez EJ, Peck CJ, **Weber KS**, Robison RA, and O'Neill KL. (2017) Non-Small Cell Lung Cancer Cell lines A549 and NCI-H460 Express HPRT on the Plasma Membrane. *Oncotargets and Therapy*. Accepted for publication 1/12/17
3. Johnston JD, Barney T, Crandall J, Brown M, Westover T, Paulson S, Smith M, and **Weber KS**. (2017) Dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. *Archives of Environmental and Occupational Health*. Jan 18:0. doi: 10.1080/19338244.2017.1282846
4. Kempton CE, **Weber KS**, and Johnson SM. (2017) Method to Increase Undergraduate Laboratory Student Confidence in Performing Independent Research. *Journal of Microbiology & Biology Education*. Accepted for publication in the May 2017 issue.
5. Johnston JD, Tuttle SC, Nelson MC, Bradshaw RK, Hoybjerg TG, Johnson JB, Kruman BA, Orton TS, Cook RB, Eggett DL, **Weber KS**. (2016) Evaporative Cooler Use Influences Temporal Indoor Relative Humidity but not Dust Mite Allergen Levels in Homes in a Semi-arid Climate *PLOS ONE* 11(1): e0147105. doi:10.1371/journal.pone.0147105
6. Steck R, Hill S, Weigel E, **Weber KS**, Robison R, O'Neill K. (2015) Pharmacologic immunosuppression of mononuclear phagocyte phagocytosis by caffeine. *Pharmacology Research & Perspectives*. 3(6), e00180, doi: 10.1002/prp2.180
7. **Weber KS**, Jensen JL, Johnson SM (2015) Anticipation of personal genomics data enhances interest and learning environment in Genomics and Molecular Biology undergraduate courses. *PLOS ONE* 10(8) e0133486
8. Olsen DS, Goar WA, Nichols BA, Bailey KT, Christensen SL, Merriam KR, Reynolds PR, Wilson E, **Weber KS**, Bridgewater LC. (2015) Targeted mutation of nuclear bone morphogenetic protein 2 (nBMP2) impairs secondary immune response in a mouse model. *Biomed Research International*. Volume 2015, Article ID 975789, 13 pages. doi:10.1155/2015/975789
9. Persaud SP, Parker CR, **Weber KS**, and Allen PM. (2014) Intrinsic CD4<sup>+</sup> T cell sensitivity and response to pathogen are set and sustained by avidity for thymic and peripheral self-pMHC. *Nature Immunology*. 15(3):266-274
10. Lynch JN, Donermeyer DL, **Weber KS**, Kranz DM, and Allen PM. (2013) Subtle changes in TCR $\alpha$  CDR1 profoundly increase the sensitivity of CD4 T cells. *Molecular Immunology*. 53(3):283-294.
11. Graw F, **Weber KS**, Allen PM and Perelson AS. (2012) Dynamics of CD4<sup>+</sup> T cell responses against *Listeria monocytogenes*. *Journal of Immunology*. 189(11):5250-5256

12. **Weber KS**, Li QJ, Persaud SP, Campbell JD, Davis MD, and Allen PM. (2012) Distinct populations of CD4<sup>+</sup> helper T cells mediate CD4<sup>+</sup> and CD8<sup>+</sup> memory responses to infection. *Proceedings of the National Academy of Sciences. U S A.* 109(24):9511-9516 **Faculty of 1000 recommended**
13. **Weber KS**, Hildner K, Murphy KM, and Allen PM. (2010) Trpm4 differentially regulates Th1 and Th2 function by altering calcium signaling and NFAT localization. *Journal of Immunology.* 185(5):2836-46
14. Persaud SP, Donermeyer DL, **Weber KS**, Kranz DM, and Allen PM. (2010) High-affinity T cell receptor differentiates cognate peptide-MHC and altered peptide ligands with distinct kinetics and thermodynamics. *Molecular Immunology.* 47(9):1793-801
15. Morley, SC, **Weber KS**, Kao H, and Allen PM. (2008) Protein kinase C- $\theta$  is required for efficient positive selection. *Journal of Immunology.* 181(7):4696-4708.
16. **Weber KS**, Miller MJ, and Allen PM. (2008) Th17 cells exhibit a distinct calcium profile from Th1 and Th2 cells and have Th1-like motility and NFAT nuclear localization. *Journal of Immunology.* 180(3):1442-1450
17. Donermeyer DL\*, **Weber KS\***, Kranz DM, and Allen PM. (2006) The study of high affinity TCRs reveals duality in T cell recognition of antigen: specificity and degeneracy. *Journal of Immunology.* 177(10):6911-6919. (\*co-first authorship)
18. Richman SA, Healan SJ, **Weber KS**, Donermeyer DL, Dossett ML, Greenberg PD, Allen PM, and Kranz DM. (2006) Development of a novel strategy for engineering high-affinity proteins by yeast display. *Protein Engineering, Design, and Selection.* 19(6):255-264.
19. **Weber KS**, Donermeyer DL, Allen PM, and Kranz DM. (2005) Class II-restricted T cell receptor engineered in vitro for higher affinity retains peptide specificity and function. *Proceedings of the National Academy of Sciences. U S A.* 102(52):19033-19038.
20. Lephart ED, West TW, **Weber KS**, Rhees RW, Setchell, KD, Adlercreutz H, and Lund TD. (2002) Neurobehavioral effects of dietary soy phytoestrogens. *Neurotoxicology and Teratology* 24, 5-16.
21. Roper RJ, Weis JJ, McCracken BA, Green CB, Ma Y, **Weber KS**, Fairbairn D, Butterfield RJ, Potter MR, Zachary JF, Doerge RW and Teuscher C. (2001) Genetic control of susceptibility to experimental Lyme arthritis is polygenic and exhibits consistent linkage to multiple loci on chromosome 5 in four independent mouse crosses. *Genes and Immunity* 2, 388-397.
22. **Weber KS**, Setchell KD, Stocco DM and Lephart ED. (2001) Dietary soy-phytoestrogens decrease testosterone levels and prostate weight, without altering LH, prostate 5 $\alpha$ -reductase or testicular StAR levels in adult male Sprague-Dawley rats. *Journal of Endocrinology* 170, 591-9.
23. **Weber KS**, Setchell KD and Lephart ED. (2001) Maternal and perinatal brain aromatase: Effects of dietary soy phytoestrogens. *Developmental Brain Research* 126, 217-221.
24. Lephart ED, Call SB, Rhees RW, Jacobson NA, **Weber KS**, Bledsoe J and Teuscher C. (2001) Neuroendocrine regulation of sexually dimorphic brain structure and associated sexual behavior in male rats is genetically controlled. *Biology of Reproduction* 64, 571-578.

25. Lephart ED, Thompson JM, Setchell KD, Adlercreutz H and **Weber KS**. (2000) Phytoestrogens decrease brain calcium-binding proteins but do not alter hypothalamic androgen metabolizing enzymes in adult male rats. *Brain Research* 859, 123-131.
26. **Weber KS**, Jacobson NA, Setchell KD and Lephart ED. (1999) Brain aromatase and 5 alpha-reductase, regulatory behaviors and testosterone levels in adult rats on phytoestrogen diets. *Proceedings of the Society for Experimental Biology and Medicine* 221(2), 131-135.

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#### BOOK CHAPTERS

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Stone JD, Yin Y, Mo M, **Weber KS**, Donermeyer DL, Allen PM, Mariuzza RA, and Kranz DM. (2012). Engineering High-Affinity T Cell Receptor/ Cytokine Fusions for Therapeutic Targeting, Protein Engineering, Prof. Pravin Kaumaya (Ed.), ISBN: 978-953-51-0037-9, InTech,

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#### SCIENTIFIC COMMENTARIES ABOUT MY WORK (2012 – PRESENT)

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Nature Immunology News and Views feature on my publication. March 2014  
[http://www.nature.com/ni/journal/v15/n3/full/ni.2832.html?WT.ec\\_id=NI-201403](http://www.nature.com/ni/journal/v15/n3/full/ni.2832.html?WT.ec_id=NI-201403)

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#### MEDIA REPORTS ABOUT MY WORK (2012 – PRESENT)

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1. Interview about work with Julie Rose on the Top of Mind Show on BYU Radio. January 23, 2017  
<https://www.byuradio.org/episode/46b02b63-3495-4fac-8a83-07f63f63956a/top-of-mind-with-julie-rose-world-events-weekend-warriors-punching-the-clock?playhead=4779&autoplay=true>
2. BYU Life Sciences magazine story on effort to provide authentic learning experiences. June 2016  
<http://ismagazine.byu.edu/Issues/Spring2016/SevenReasonstoSeekOutAuthenticLearningExperiences.aspx>
3. Interview about publication and work on the Matt Townsend Show on BYU Radio. June 2, 2016  
<http://www.byuradio.org/episode/ffedd537-d4cc-45e9-87b1-f5bc139c7ad9/the-matt-townsend-show-the-abolitionists-war-on-soda-allergies-and-dust-mites?playhead=6580&autoplay=true>
4. Fox Evening News interview and TV feature on publication and work. May 11, 2016  
<http://fox13now.com/2016/05/11/research-from-byu-suggests-utah-countys-climate-makes-dust-mites-less-of-a-concern/>
5. KSL News radio story about publication and work. May 10, 2016.  
<https://audioboom.com/boos/4549098-new-byu-study-shows-low-numbers-of-dust-mites-in-utah-county-homes>
6. ABC News story about publication and work. May 9, 2016  
<http://www.good4utah.com/news/top-stories/are-dust-mites-really-a-problem-in-utah>
7. BYU News feature on my publication and work. May 6, 2016  
<https://news.byu.edu/news/dust-mites-invading-your-mattress-maybe-not-say-byu-researchers>
8. BYU Home page feature on my publication and work. February 13, 2014  
<http://news.byu.edu/archive14-feb-helpertcells.aspx>
9. KSL News Radio story about my recent publication and work. February 18, 2014  
[http://img.ksl.com/audio/2014\\_02\\_14\\_scott\\_and\\_maria3.mp3](http://img.ksl.com/audio/2014_02_14_scott_and_maria3.mp3) Starts at minute 34:14
10. BYU ElevenNews at Noon feature on my lab and work. February 20, 2014  
<http://elevennews.byu.edu/2014/02/helper-t-cells/>

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**GRANT FUNDING (2012 – PRESENT)**

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**External grant funding**

1R15AI107753-01	
<b>NIH/NIAID</b>	6/1/13-5/31/17
NIH Academic Research Enhancement Award (R15)	\$449,087
The role of antigenic strength in the primary and memory responses of pathogen specific CD4 <sup>+</sup> T cells	
U54 AI057160	8/1/09-2/28/12
<b>NIH/MRCE</b>	\$350,617
MRCE Career Development Award in Biodefense and Emerging Infectious Diseases Research	
Determining optimal ligand affinity for generating protective CD4 <sup>+</sup> T cell responses to <i>Listeria monocytogenes</i> .	

**Internal grant funding**

2017 BYU Mentoring Environment Grant	\$20,000
T cell immunotherapy of infectious disease and cancer	
2016 BYU College of Life Sciences Teaching Enhancement Grant	\$3,000
Improving molecular biology and immunology student engagement with novel 3D molecular models	
2016 BYU College of Life Sciences Translational Research Grant	\$15,000
Co-PI with Dr. Kim O'Neill on a Chimeric Antigen Receptors immunotherapy project	
2015 BYU College of Life Sciences Teaching Enhancement Grant	\$8,700
Integrating microbiome metagenomic analysis into Immunology, Molecular Biology, and Genomics courses to improve student learning	
2015 John A. Widtsoe Scholarly Grant	\$25,000
Engineering chimeric antigen receptors to combat infectious disease.	
2015 BYU Mentoring Environment Grant	\$20,000
Combating infectious disease with enhanced T cell memory.	
2014 BYU College of Life Sciences Teaching Enhancement Grant	\$2,000
Printing and integrating novel 3D molecular models to enhance learning in Molecular Biology courses.	
2014 BYU Mentoring Environment Grant	\$20,000
Improving the memory response of pathogen specific helper T cells.	
2013 BYU College of Life Sciences Teaching Enhancement Grant	\$8,500
Integrating personal genome testing into genomics courses to improve student learning	

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**TEACHING EXPERIENCE**

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MMBIO 441	<b>Advanced Molecular Biology</b> – Winter 2013, 2014, and 2015
MMBIO 442	<b>Advanced Molecular Biology lab</b> – Winter 2014, 2015, 2016, and 2017
MMBIO 463	<b>Immunology</b> – Winter 2016 and 2017
MMBIO 494R	<b>Mentored Research</b> – Taught each semester from 2012 - present
MMBIO 522	<b>Flow Cytometry</b> - Fall 2014, 2015, and 2016
MMBIO 551R	<b>Graduate Immunology</b> – Winter 2016 and 2017
MMBIO 694R	<b>Graduate Mentored Research</b> – Taught each semester from 2013 - present

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GUEST LECTURES / TEACHING SERVICE (2012 – PRESENT)

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Fall 2016	MMBIO 661 – Molecular Genetics	Taught 1 lecture
Fall 2016	MMBIO 425 – Diagnostic techniques	Taught 1 lecture
Fall 2016	MMBIO 463 – Immunology	Taught 1 lecture
Fall 2016	MMBIO 463 – Immunology	Graded poster presentations
Win 2016	MMBIO 468 – Genomics	Taught 1 lecture
Win 2016	MMBIO 121 – General Biology; health & disease	Taught 2 lectures
Fall 2015	MMBIO 425 – Diagnostic techniques	Taught 1 lecture
Fall 2015	MMBIO 661 – Molecular Genetics	Taught 1 lecture
Fall 2015	MMBIO 390R – Cell cycle	Taught 1 lecture
Fall 2014	MMBIO 624 – Microbial Pathogenesis	Taught 3 lectures
Fall 2014	LFSCI 101 – Freshmen Life Sciences Seminar	Guest lecture
Win 2014	MMBIO 463 – Immunology.	Taught 2 lectures
Fall 2013	MMBIO 463 – Immunology.	Evaluated scientific presentations
Fall 2013	MMBIO 441 – Advanced Molecular Biology	Guest lecture
Sum 2013	MMBIO New Student Orientation	Taught new MMBIO student lecture
Win 2013	MMBIO 463 – Immunology.	Taught 3 lectures
Fall 2012	MMBIO 463 – Immunology.	Evaluated scientific presentations
Fall 2012	MMBIO 624 – Microbial Pathogenesis	Taught 3 lectures
Fall 2012	LFSCI 101 – Freshmen Life Sciences Seminar	Guest lecture

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CITIZENSHIP / SERVICE (2012 – PRESENT)

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2016 – Organized class (Unlocking the Secrets of DNA) at UVU Empowering Your Future conference  
2016 – Taught class on personal genomics immunotherapies at Orem Golden Kiwanas club meeting.  
2016 – Organized the MMBIO Faculty Research Lunch (10 weeks; 20 faculty presenters)  
2016 – Taught class on unlocking the secrets of DNA at UVU Empowering your Future conference  
2015 – Member of the College Curriculum Committee (2015-present)  
2015 – Member of the MMBIO executive committee (2015-present)  
2015 – Chair of the MMBIO Undergraduate Committee (2015-present)  
2015 – Reviewed BYU Graduate Studies Fellowship Proposals  
2014 – Reviewed ORCA grant submissions for the BYU College of Life Sciences  
2014 – Helped organize the MMBIO 494R class trip to Yellowstone  
2014 – Member of Research Instrument Core committee  
2014 – Helped the MMBIO club and Chemical engineering at Provo Kids Science Palooza  
2013 - Initiated and organized the MMBIO Research Lab Lunch (8-week annual event)  
2013 – Reviewed ORCA grant submissions for the BYU College of Life Sciences  
2012 - Member of the MMBIO Undergraduate Committee (2012-2015)

1. Velazquez-Espinoza E, Vaden K, Townsend MH, Weagel EG, **Weber KS**, Robison RA, and O'Neill KL. Development of a TK1 specific chimeric antigen receptor T cell for the treatment of non-small-cell lung cancer. American Association for Cancer Research. April 1-5<sup>th</sup> 2017. *Washington DC*
2. Vaden K, Hancock III JC, **Weber KS**. Determining the Optimal TCR:pepMHC Affinity for CD4<sup>+</sup> T cell Primary and Memory Response. Midwinter Immunology Conference. January 28-31<sup>th</sup>, 2017. *Asilomar CA*.
3. Freitas CT, Hamblin GJ; Larsen CM, **Weber KS**. Naïve Helper T Cells with high CD5 expression have increased calcium signaling. Midwinter Immunology Conference. January 28-31<sup>th</sup>, 2017. *Asilomar CA*.
4. Tueller J, Vaden K, and Weber KS. Engineering a Cancer-Specific Third Generation CAR Immunotherapy. 11<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 19<sup>th</sup> 2017. *Orem. Utah*
5. Velazquez-Espinoza E, Vaden K, Townsend MH, Weagel EG, **Weber KS**, Robison RA, and O'Neill KL. Chimeric Antigen Receptor (CARs) for Thymidine Kinase 1 (TK1): A novel immunotherapy approach to fight cancer. Biomedical Western Regional Conference. January 19-20<sup>th</sup> 2017. *Provo Utah*
6. Johnson DJ and **Weber KS**. Role of affinity for antigen and self in T cell activation and memory generation. LDS Life Science Research Symposium. July 20-22<sup>nd</sup> 2016. *Lehi Utah*
7. Graul RJ, Tuttle SC, Kruman BA, Nelson MC, Hoybjerg TG, Meyers S, Cook RB, Eggett DL, **Weber KS**, and Johnston JD. (2016). Differences in indoor dust endotoxin levels based on type of air conditioning in homes in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.
8. Brown M, Barney T, Westover T, Paulson S, Smith M, Crandall J, **Weber KS**, and Johnston JD. (2016). Dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.
9. **Weber KS**. Engineering the Immune System to Target Cancer Cells. BYU Cancer Research Seminar. June 16<sup>th</sup> 2016. *Provo Utah*
10. **Weber KS**. Regulation of lymphocyte activation and function. BYU Microbiology and Molecular Biology Faculty Research Lunch Seminar. April 27<sup>th</sup> 2016. *Provo Utah*
11. Vaden K and **Weber KS**. Determining the optimal TCR:pMHC avidity for CD4<sup>+</sup> T cell memory generation. Midwinter Conference of Immunologists. January 23-26, 2016. *Asilomar California*.
12. Crandall J, Vaden K, O'Neill K, and **Weber KS**. Sequencing an antibody specific for an epitope overexpressed on cancer cells. 10<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 19<sup>th</sup> 2016. *Salt Lake City. Utah*

13. Hamblin G, Freitas C, Steadman N, Williams K, and **Weber KS**. Calcium Signaling in Primary and Secondary Responses of Listeria specific T helper cells. 10<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 19<sup>th</sup> 2016. *Salt Lake City. Utah*
14. Myers S, Johnson D, Anderson B, Ehlers K, Orton T, Ballard B, Persaud S, **Weber KS**. Engineering High Affinity Class II TCRs Specific for Listeria monocytogenes. 10<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 19<sup>th</sup> 2016. *Salt Lake City. Utah*
15. Hancock J, Cook M, Grose JH, Laura Bridgewater LC, and **Weber KS**. Role of PAS kinase and metabolism on immune cells. Autumn Immunology Conference 44<sup>th</sup> Annual Meeting. November 20-23<sup>rd</sup> 2015. *Chicago Illinois* Winner of an AAI Undergraduate Award and a case prize because John's abstract was scored as one of the best of undergraduates presenting.
16. Myers S Johnson D, Anderson B, Ehlers K, Orton T, Ballard B, Persaud S, **Weber KS**. Engineering High Affinity Class II TCRs Specific for Listeria monocytogenes. Autumn Immunology Conference 44<sup>th</sup> Annual Meeting. November 20-23<sup>rd</sup> 2015. *Chicago Illinois*
17. Hamblin G, Freitas C, Steadman N, Williams K, and **Weber KS**. Calcium Signaling in Primary and Secondary Responses of Listeria specific T helper cells. Autumn Immunology Conference 44<sup>th</sup> Annual Meeting. November 20-23<sup>rd</sup> 2015. *Chicago Illinois* Winner of an AAI Undergraduate Award and a cash prize because Garrett's abstract was scored as one of the best of undergraduates presenting.
18. **Weber KS**. Relationship of T cell receptor affinity and T cell function. BYU Microbiology and Molecular Biology Faculty Research Lunch Seminar. June 17<sup>th</sup> 2015 *Provo Utah*
19. **Weber KS**. Engineering the Immune System to Target Cancer Cells. BYU Cancer Research Seminar. May 21<sup>st</sup> 2015 *Provo Utah*
20. Johnson DK, Persaud SP, **Weber KS**. Determining optimal TCR:pMHC avidity for CD4<sup>+</sup> T cell memory generation. 2015 Keystone Symposia on T cell regulation and effector function. March 29<sup>th</sup> - April 3<sup>rd</sup> 2015 *Snowbird Utah*
21. Anderson BE, Ehlers KB, Johnson DK, Persaud SP, and **Weber KS**. Engineering High Affinity T-Cell Receptors Specific for *Listeria monocytogenes*. 9<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 27<sup>th</sup> 2015. *St. George Utah*
22. Hoybjerg T, Christiansen M, Myers S, Kruman B, Johnston JD, and **Weber KS**. Development of sensitive Limulus Amebocyte Lysate assay to quantify endotoxin levels in Utah homes with and without swamp coolers. 9<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 27<sup>th</sup> 2015. *St. George Utah*
23. Christiansen M, Hoybjerg T, Cook R, Johnston JD, and **Weber KS**. Comparison of dust mite antigen levels in Utah homes with swamp coolers versus homes with air conditioning. 9<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 27<sup>th</sup> 2015. *St. George Utah*
24. **Weber KS**. Helper T cell role in immunity to infection. BYU Microbiology and Molecular Chemistry and Biochemistry Department Seminar. February 19<sup>th</sup> 2015 *Provo Utah*



25. Freitas CT<sup>†</sup>, Williams KR, and **Weber KS**. Calcium Signaling in T helper cell Primary and Secondary Responses. Midwinter Conference of Immunologists. January 24-27 2015. *Asilomar California*.
26. Johnson D<sup>†</sup>, Anderson BE, Ehlers K, and **Weber KS**. Engineering High Affinity T-Cell Receptors Specific for *Listeria monocytogenes*. Midwinter Conference of Immunologists. January 24-27 2015. *Asilomar California*.
27. **Weber KS**. Helper T cell role in immunity to infection. BYU Microbiology and Molecular Biology Department Seminar. January 22<sup>nd</sup> 2015 *Provo Utah*
28. **Weber KS**. Helper T cell role in immunity to infection. BYU speed networking Seminar. August 13<sup>th</sup> 2014 *Provo Utah*
29. **Weber KS**. Relationship of T cell receptor affinity and T cell function. BYU Microbiology and Molecular Biology Faculty Research Lunch Seminar. June 23<sup>rd</sup> 2014 *Provo Utah*
30. Hancock J, Ehlers KB, Orton T, Persaud SP, and **Weber KS**. Engineering a Pathogen Specific Single Chain T-Cell Receptor for *Listeria monocytogenes*. American Society for Microbiology Intermountain Branch Meeting. March 8<sup>th</sup> 2014. *Provo Utah*
31. Tellez CM, Williams KR, Weagel E, O'Neill KL, and **Weber KS**. Macrophage polarization by necrotic and apoptotic cancer cells. ASM Branch Meeting. March 8<sup>th</sup> 2014. *Provo Utah*
32. Ballard B, Anderson BE, Orton T, Persaud SP, and **Weber KS**. Engineering a Stabilized Single Chain T-Cell Receptor called LLO118 for use in Generating High Affinity T cell Receptors. American Society for Microbiology Intermountain Branch Meeting. March 8 2014. *Provo Utah*
33. Campbell E, Johnson J, Christiansen M, Johnston JD, and **Weber KS**. Development of sensitive ELISA and qPCR assays to quantitate levels of dust mite antigens in homes in Utah with and without swamp coolers. ASM Intermountain Branch Meeting. March 8<sup>th</sup> 2014. *Provo Utah*
34. Mayo, JL, Nichols BA, Olson DS, Corder RD, Hancock CR, Weber KS, Wilson E, Edwards JG, Barrow JR, and Bridgewater LC. The nBMP2 mutant mouse shows defects in intracellular calcium transport-regulated pathways. Southwest Regional Meeting of the Society for Developmental Biology. March 7<sup>th</sup>-8<sup>th</sup> 2014 Aurora Colorado
35. Hancock J, Ehlers KB, Orton T, Persaud SP, and **Weber KS**. Engineering a Pathogen Specific Single Chain T-Cell Receptor for *Listeria monocytogenes*. 8<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 28<sup>th</sup> 2014. *Provo Utah*
36. Wahlquist B, Kesler D, **Weber KS**, and Johnston JD. The effect of evaporative coolers on indoor relative humidity and dust mite allergens in Utah homes. 8<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 28<sup>th</sup> 2014. *Provo Utah*
37. Williams KR, Tellez CM, Lee EJ, Weagel E<sup>†</sup>, O'Neill KL, and **Weber KS**. Macrophage polarization by necrotic and apoptotic cancer cells. BYU Presidential Leadership Council Meeting. February 27<sup>th</sup> 2014. *Provo Utah*
38. **Weber KS**. Helper T cell role in immunity to infection. BYU speed networking Seminar. Dec 6<sup>th</sup> 2013 *Provo Utah*

39. Anderson BE, Ehlers KB, Persaud SP, and **Weber KS**. Engineering Pathogen Specific Single Chain T Cell Receptors. Autumn Immunology Conference. Nov 22-25<sup>th</sup> 2013. *Chicago Illinois*
40. **Weber KS**. Helper T Cell Role in Immunity to Infection. Microbiology and Molecular Biology Graduate Student Orientation. Brigham Young University. September 5<sup>th</sup> 2013. *Provo Utah*
41. **Weber KS**. The Role of Antigenic Strength in the Primary and Memory Responses of Pathogen Specific CD4<sup>+</sup> T Cells. LDS Life Science Research Symposium. July 19<sup>th</sup> 2013. *SLC Utah*
42. **Weber KS**. Relationship of T cell receptor affinity and T cell function. BYU Microbiology and Molecular Biology Faculty Research Lunch Seminar. August 14<sup>th</sup> 2013 *Provo Utah*
43. Persaud SP, **Weber KS**, and Allen PM. TCR avidity for thymic and peripheral self peptide-MHC sets and sustains intrinsic CD4<sup>+</sup> T cell sensitivity. The American Association of Immunologists 100<sup>th</sup> Annual Meeting. May 3-7 2013. *Honolulu Hawaii*
44. Anderson BE, Ballard B, Persaud SP, and **Weber KS**. Engineering Pathogen Specific High Affinity TCRs. BYU Presidential Leadership Council Meeting. Feb 28<sup>th</sup> 2013. *Provo Utah*
45. Anderson BE, Ballard B, Persaud SP, and **Weber KS**. Engineering Pathogen Specific High Affinity T-cell Receptors. 7<sup>th</sup> Annual Utah Conference on Undergraduate Research. February 22<sup>nd</sup> 2013. *Logan Utah*
46. **Weber KS**. Helper T Cell Role in Immunity to Infection. Microbiology and Molecular Biology Graduate Student Retreat. Brigham Young University. August 23<sup>rd</sup> 2012 *Provo Utah*
47. Marshall E, **Weber KS**, Donermeyer D, Allen PM, and Kranz DM. Examining the role of T cell co-receptors CD4 and CD8 in T cell activation by using high-affinity T cell receptors. The American Association of Immunologists 99<sup>th</sup> Annual Meeting. May 4-8 2012 *Boston Mass*
48. **Weber KS**, Li QJ, Persaud SP, Campbell JD, Davis MM, and Allen PM. Distinct populations of CD4<sup>+</sup> helper T cells generate CD4 and CD8 memory responses to infection. The American Association of Immunologists 98<sup>th</sup> Annual Meeting. May 13-17 2011. *San Francisco California*
49. Lynch JN, Donermeyer D, **Weber KS** and Allen PM. Increased K<sub>on</sub> of TCR-pMHC interaction influences activation and development of CD4<sup>+</sup> T cells. The American Association of Immunologists 98<sup>th</sup> Annual Meeting. May 13-17 2011. *San Francisco California*
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