

Shelby Lynn O'Connor, Curriculum Vitae

I. Background Information

A. Personal Background

Address: 1214 Seminole Hwy, Madison, WI, 53711
Phone: 608-890-0843
Date/Place of Birth: May 18, 1977/St. Louis, Missouri
Marital Status: Married to David O'Connor
Maiden Name: Shelby Lynn Feinberg
Citizenship: United States
Email: slfeinberg@wisc.edu

B. Educational Background

1999 B.Sc. Biology Honors; University of Illinois at Urbana-Champaign
2004 Ph.D. Cellular and Molecular Biology; UW-Madison: Thesis Advisor: Shigeki Miyamoto, Ph.D.; Mechanisms of Constitutive NF- κ B Activity in B cells and Cancer Cells
2004-2005 Post-Doctoral Research Associate; UW-Madison, Advisor—Shigeki Miyamoto

C. Professional Experience

2005-2006 Assistant Faculty Associate; School of Pharmacy; UW-Madison
2006-2009 Assistant Scientist; Dept. of Pathology and Laboratory Medicine; UW-Madison
2009-2011 Associate Scientist; Dept. of Pathology and Laboratory Medicine; UW-Madison
2011-2017 Assistant Professor; Dept. of Pathology and Laboratory Medicine; UW-Madison
2017-current Associate Professor; Dept. of Pathology and Laboratory Medicine; UW-Madison

D. Honors and Awards

1995-1999 Dean's List
1996-1999 Edmund James Scholar
1996 NSF Haight Summer Research Award, Dept. of Chemistry at University of Illinois at Urbana-Champaign
1996 Phi Eta Sigma Freshman Honor Society
1996 Arthur W. Sloan Prize - Excellence in Chemistry
1997 Howard Hughes Fellowship for Undergraduate Research in the Life Sciences at the University of Illinois at Urbana-Champaign
1997-1998 Colgate-Palmolive Research Award
1998-1999 Barry M. Goldwater Scholarship Recipient at the University of Illinois at Urbana-Champaign
1998-1999 Undergraduate Research Fellowship—American Society of Microbiology
1999 Phi Beta Kappa Inductee at the University of Illinois at Urbana-Champaign
1999 Graduation Achievements from University of Illinois at Urbana-Champaign University of Illinois at Urbana-Champaign University Scholar (Bronze Tablet)
Summa Cum Laude graduate

	School of Life Sciences All-School Distinction Award
	School of Life Sciences Graduate with Highest Distinction
1999-2002	NIH Molecular Biosciences Training Grant at the University of Wisconsin at Madison
2002	Vilas Travel Grant at the UW-Madison
2003-2004	American Heart Association Northland Affiliate Predoctoral Fellowship
2006	Lesson Study Training Grant Award (in collaboration with Dr. W. John Kao, Dr. Mel de Villiers, and Bonnie Fingerhut at the UW School of Pharmacy)
2009	CHAVI/HVTN Early Career Investigator Award (ESI Award)
2010	University of Wisconsin-Madison Center for Global Health Faculty and Staff Development Award
2012	Early Investigator Award at the 30 th Annual Nonhuman Primate Models for AIDS Symposium
2014-2017	Outstanding Teaching Contributions to Dept of Pathology and Laboratory Medicine
2018	Reza Award for teaching in the Department of Pathology and Laboratory Medicine
2015-2020	Research Motivation Awards in the Dept of Pathology and Laboratory Medicine
2018-2019	Visiting Professor, Peter Doherty Institute, University of Melbourne
2020-current	Principal Fellow (Associate Professor title) at the Faculty of Medicine, Dentistry, and Health Sciences at the University of Melbourne

II. Instructional/Teaching Experience

A. Academic

Past/Completed:

1997-1999	Teaching Assistant for accelerated general chemistry, University of Illinois at Urbana Champaign.
1998	Rewrote a 20-page course packet on NMR and molecular symmetry for the accelerated general chemistry course, University of Illinois at Urbana-Champaign
2000-2001	Completed the Teaching and Learning Service (TALS) Program, UW-Madison
2001	Teaching Assistant for Biocore 303 (Cell biology), UW-Madison.
2001-2002	Kindergarten through Infinity (KTI) Fellow, UW-Madison.
2002-2003	Coached the Cell Biology Science Olympiad team at Madison West HS
2005	Discussion assistant for Pathology 750 (Cellular and Molecular Biology/Pathology), UW-Madison
2005-2006	Managed laboratory courses at the UW School of Pharmacy: Pharmaceutical Sciences 420, Pharmaceutical Sciences 421, and Pharmaceutical Sciences 558
2006	Instructed tutorial sessions for Pharmaceutical Sciences 421, UW-Madison
2006	Led an oncology discussion course with a Pharmaceutical Sciences 699 student, UW-Madison
2007	Assist with Genetics 375 (Contemporary Issues in HIV/AIDS), University of Wisconsin-Madison

2007-2008	Lecturer for Pathology 750 (Cellular and Molecular Biology/Pathology), UW-Madison
2008-2011	Lecturer for Clinical Laboratory Sciences 560 (Clinical Immunology and Applied Techniques), UW-Madison
2012-2013	Contributor to Pathology 809 (Molecular Mechanisms of Disease), UW-Madison
2012	Lecturer for MMI 810 (Topics in Microbiology), UW-Madison
2014-2017	Lecturer for Pathology 803 (Pathogenesis of Major Human Diseases), UW-Madison
2014-2017	Lecturer for MMI 528 (Immunology), UW-Madison
2015-2016	Developed genomics/genetics module for Biocore 383 with funding through the Madison Initiative for Undergraduates
2017-2018	Developed active learning exercises for Biocore 383 with funding through the Madison Initiative for Undergraduates
2019	Genetics Tutor at Queen's College, University of Melbourne
2018,2020	Lecturer for MMI 555 (Vaccines: Practical Issues for a Global Society), UW-Madison

Current/Ongoing:

2007-	Lecturer for Pathology 210 (HIV: Sex, Science, and Society), UW-Madison (not 2012 or 2018)
2012-	Lecturer for Pathology 709/807 (Special Topics in Immunopathology), UW-Madison (years of 2012, 2015, 2018, and 2020)
2012-	Lecturer and Director for Pathology 750 (Cellular and Molecular Biology/Pathology), UW-Madison (not 2019)
2014-	Lecturer for Biocore 383 (Cell biology), UW-Madison (Director since 2016; not 2019)

B. Media

1. Interviewed about MHC heterozygote advantage on the WUWM Milwaukee Public Radio show "Lake Effect" (2010).
2. Interviewed about biosafety when working with M. tuberculosis by the Wisconsin State Journal. "UW steps up bio research safety" (February 2012).
3. Interviewed by Channel 3000 about Mobile COVID-19 LAMP testing for local television (August 2020)
4. Interviewed by 'The Today Show' about my participation in the AstraZeneca COVID-19 vaccine trial (September 2020)
5. Interviewed by 'Spectrum News' about mobile COVID-19 testing (September 2020)
6. Interviewed by Leen Yassine for the Loyola student run newspaper 'The Phoenix' about mobile COVID-19 LAMP testing (September 2020)

C. Graduate students, postdocs, and scientists (8)

Years	Student	Mentoring Relationship
2015-2018	Matthew Sutton	Completed his PhD in 2018 in CMP program; was funded for two years by T32GM081061
2015-2016	Gabriel Goncalves	Visiting graduate student from Rio de Janeiro as part of the Science Without Borders Program
2015-2016	Dr. Robin Forbes-Lorman	Teaching postdoc assisting with the MIU proposal associated with Biocore 383 in 2016
2015-present	Dr. Amy Ellis-Connell	Associate Scientist in my lab
2016-2017	Paola Silveira	Visiting graduate student from Rio de Janeiro
2019-present	Ryan Moriarty	MDTP graduate student; CIBM Short term traineeship
2019-present	Athena Golfinos	CMP graduate student
2019-present	Olivia Sayer	CMP graduate student

D. Supervisor of Technicians (9)

Years	Student	Current Status
2009-2010	Charles Burns	Completed Medical school at Rush University; MD at Case Western
2010-2011	Andrew Braasch	Unknown
2010-2013	Ericka Becker	Pathology Assistant at The Cancer Institute of New Jersey
2011-2013	Max Harris	NodeSource
2013-2016	Dane Gellerup	Completed Bioinformatics Masters; now in Seattle
2014-current	Alexis Balgeman	Research Specialist
2016-2017	Katie Zarbock	CMP student (began fall 2017 and joined Dr. Rey's lab)
2017-2019	Ryan Moriarty	MDTP graduate student in my lab
2019-current	John Baczenas	Associate Research Specialist

E. Mentor for Undergraduate Students (26)

Years	Student	Current Status
2002-2003	Cindy Chan	Unknown
2006-2007	Chad Pendley ^{1,2}	Completed Medical school at Medical College of Wisconsin
2006-2008	Ericka Becker	Pathology Assistant at The Cancer Institute of New Jersey
2006-2008	Kevin Campbell ^{2,3}	MD, Resident at Rush University in Orthopaedic Surgery
2007-2008	Ann Detmer	Graduate assistant at University of Kentucky

Years	Student	Current Status
2007-2010	Anna Moreland ^{4,5}	MD at Johns Hopkins University
2008-2010	Kelly Sandman	Unknown
2008-2009	Claire O'Leary ²	Graduate student at the University of Pennsylvania
2009-2010	Benji Sudolcan	Went to medical school at UW-Madison
2009-2012	Hannah Creager	CDC
2010-2012	Brittney Golbach	Went to medical school at UW-Madison
2010-2011	Jacob Clark ¹	Unknown
Summer 2010	Regina Troia	Nursing in Eau Claire, WI
2010-2012	Patrick Bohn	Student in PA school
2011-2014	Andy VanPay	Medical student at UW-Madison
2012-2013	Arthur Freire ⁶	Medical student at Rio Grande do Norte State University, Brazil
2013-2016	Hannah Schweigert	Working in Madison
2014-2015	Daniel Hindmand	unknown
2015-2017	Jaffna Mathiapparanam ²	Graduate student
2016-2017, Summer 2018 & 2019	Nadean Kannal	Undergraduate at Carroll College
2016-2017	Nico Fesser ²	Medical student
2017-2018	Ryan Treves	Undergraduate student at Stanford
2017-2020	Anna Batchenkova	Was part of the Youth Apprenticeship program; student at MATC
2018-2020	Karigynn Hansen	Starting Genetic Counseling program at Vanderbilt in fall 2020
2018-2020	Dillon Herbst	Undergraduate student at UW-Madison
2020-current	Jayden Lee	Youth Apprenticeship Program student

1 – Won Hilldale Undergraduate/Faculty Research Fellowship

2 – Wrote a senior thesis

3 – Won Mary Shine Peterson Scholarship

4 – Won Wisconsin Idea Undergraduate Fellowship

5 – Won Honors Summer Sophomore Apprenticeship Research Grant

6 – Science Without Borders Student (Brazil)

I was a direct mentor to Cindy Chan, Chad Pendley, Ericka Becker, Anna Moreland (for the Knowledge Vaccine Project), Kelly Sandman, Andy VanPay, Arthur Freire, Hannah Schweigert, Dan Hindmand, and Jaffna Mathiaparanam. I provided additional oversight to work performed by Kevin Campbell, Ann Detmer, Anna Moreland, Claire O'Leary, Benji Sudolcan, Hannah Creager, Jacob Clark, Nico Fesser, Nadean Kannal, Ryan Treves, Anna Batchenkova, Karigynn Hansen, Dillon Herbst, and Jayden Lee.

III. Research Accomplishments

A. Papers published in peer-reviewed journals:

1. Kirby JR, Kristich CJ, **Feinberg SL**, Ordal GW. 1997. Methanol production during chemotaxis to amino acids in *Bacillus subtilis*. *Mol Microbiol* 24:869–878. 9194713,
2. Huang TT, **Feinberg SL**, Suryanarayanan S, Miyamoto S. 2002. The zinc finger domain of NEMO is selectively required for NF-kappa B activation by UV radiation and topoisomerase inhibitors. *Mol Cell Biol* 22:5813–5825. 12138192, PMC133970.
3. **O'Connor S**, Shumway SD, Amanna IJ, Hayes CE, Miyamoto S. 2004. Regulation of constitutive p50/c-Rel activity via proteasome inhibitor-resistant IkappaBalpha degradation in B cells. *Mol Cell Biol* 24:4895–4908. 15143182, PMC416427.
4. **O'Connor S**, Markovina S, Miyamoto S. 2005. Evidence for a phosphorylation-independent role for Ser 32 and 36 in proteasome inhibitor-resistant (PIR) IkappaBalpha degradation in B cells. *Exp Cell Res* 307:15–25. 15922723,
5. **O'Connor S**, Shumway S, Miyamoto S. 2005. Inhibition of IkappaBalpha nuclear export as an approach to abrogate nuclear factor-kappaB-dependent cancer cell survival. *Mol Cancer Res* 3:42–49. 15671248,
6. **O'Connor SL**, Blasky AJ, Pendley CJ, Becker EA, Wiseman RW, Karl JA, Hughes AL, O'Connor DH. 2007. Comprehensive characterization of MHC class II haplotypes in Mauritian cynomolgus macaques. *Immunogenetics* 59:449–462. 17384942, PMC2836927.
7. Wojcechowskyj JA, Yant LJ, Wiseman RW, **O'Connor SL**, O'Connor DH. 2007. Control of simian immunodeficiency virus SIVmac239 is not predicted by inheritance of Mamu-B*17-containing haplotypes. *J Virol* 81:406–410. 17079280, PMC1797263.
8. Wiseman RW, Wojcechowskyj JA, Greene JM, Blasky AJ, Gopon T, Soma T, Friedrich TC, **O'Connor SL**, O'Connor DH. 2007. Simian immunodeficiency virus SIVmac239 infection of major histocompatibility complex-identical cynomolgus macaques from Mauritius. *J Virol* 81:349–361. 17035320, PMC1797269.
9. Greene JM, Burwitz BJ, Blasky AJ, Mattila TL, Hong JJ, Rakasz EG, Wiseman RW, Hasenkrug KJ, Skinner PJ, **O'Connor SL**, O'Connor DH. 2008. Allogeneic lymphocytes persist and traffic in feral MHC-matched mauritian cynomolgus macaques. *PLoS One* 3:e2384. 18545705, PMC2408966.
10. Markovina S, Callander NS, **O'Connor SL**, Kim J, Werndli JE, Raschko M, Leith CP, Kahl BS, Kim K, Miyamoto S. 2008. Bortezomib-resistant nuclear factor-kappaB activity in multiple myeloma cells. *Mol Cancer Res* 6:1356–1364. 18708367, PMC2587345.
11. *Pendley CJ, *Becker EA, Karl JA, Blasky AJ, Wiseman RW, Hughes AL, **O'Connor SL**, O'Connor DH. 2008. MHC class I characterization of Indonesian cynomolgus macaques. *Immunogenetics* 60:339–351. 18504574, PMC2612123.
12. *Campbell KJ, *Detmer AM, Karl JA, Wiseman RW, Blasky AJ, Hughes AL, Bimber BN, **O'Connor**

- SL**, O'Connor DH. 2009. Characterization of 47 MHC class I sequences in Filipino cynomolgus macaques. *Immunogenetics* 61:177–187. 19107381, PMC2666003.
13. Burwitz BJ, Pendley CJ, Greene JM, Detmer AM, Lhost JJ, Karl JA, Piaskowski SM, Rudersdorf RA, Wallace LT, Bimber BN, Loffredo JT, Cox DG, Bardet W, Hildebrand W, Wiseman RW, **O'Connor SL**, O'Connor DH. 2009. Mauritian cynomolgus macaques share two exceptionally common major histocompatibility complex class I alleles that restrict simian immunodeficiency virus-specific CD8⁺ T cells. *J Virol* 83:6011–6019. 19339351, PMC2687399.
 14. *Bimber BN, *Burwitz BJ, ***O'Connor S**, Detmer A, Gostick E, Lank SM, Price DA, Hughes A, O'Connor D. 2009. Ultradeep pyrosequencing detects complex patterns of CD8⁺ T-lymphocyte escape in simian immunodeficiency virus-infected macaques. *J Virol* 83:8247–8253. 19515775, PMC2715741.
 15. Markovina S, Callander NS, **O'Connor SL**, Xu G, Shi Y, Leith CP, Kim K, Trivedi P, Kim J, Hematti P, Miyamoto S. 2010. Bone marrow stromal cells from multiple myeloma patients uniquely induce bortezomib resistant NF-kappaB activity in myeloma cells. *Mol Cancer* 9:176. 20604947, PMC3095250.
 16. Hughes AL, **O'Connor S**, Dudley DM, Burwitz BJ, Bimber BN, O'Connor D. 2010. Dynamics of haplotype frequency change in a CD8+TL epitope of simian immunodeficiency virus. *Infect Genet Evol* 10:555–560. 20149896, PMC2863052.
 17. Greene JM, Lhost JJ, Burwitz BJ, Budde ML, Macnair CE, Weiker MK, Gostick E, Friedrich TC, Broman KW, Price DA, **O'Connor SL**, O'Connor DH. 2010. Extralymphoid CD8⁺ T cells resident in tissue from simian immunodeficiency virus SIVmac239{Delta}nef-vaccinated macaques suppress SIVmac239 replication ex vivo. *J Virol* 84:3362–3372. 20089651, PMC2838091.
 18. **O'Connor SL**, Lhost JJ, Becker EA, Detmer AM, Johnson RC, Macnair CE, Wiseman RW, Karl JA, Greene JM, Burwitz BJ, Bimber BN, Lank SM, Tuscher JJ, Mee ET, Rose NJ, Desrosiers RC, Hughes AL, Friedrich TC, Carrington M, O'Connor DH. 2010. MHC heterozygote advantage in simian immunodeficiency virus-infected Mauritian cynomolgus macaques. *Sci Transl Med* 2:22ra18. 20375000, PMC2865159.
 19. Kirmaier A, Wu F, Newman RM, Hall LR, Morgan JS, **O'Connor S**, Marx PA, Meythaler M, Goldstein S, Buckler-White A, Kaur A, Hirsch VM, Johnson WE. 2010. TRIM5 suppresses cross-species transmission of a primate immunodeficiency virus and selects for emergence of resistant variants in the new species. *PLoS Biol* 8:20808775, PMC2927514.
 20. Creager HM, Becker EA, Sandman KK, Karl JA, Lank SM, Bimber BN, Wiseman RW, Hughes AL, **O'Connor SL**, O'Connor DH. 2011. Characterization of full-length MHC class II sequences in Indonesian and Vietnamese cynomolgus macaques. *Immunogenetics* 63:611–618. 21614582, PMC3156323.
 21. *Budde ML, *Lhost JJ, Burwitz BJ, Becker EA, Burns CM, **O'Connor SL**, Karl JA, Wiseman RW, Bimber BN, Zhang GL, Hildebrand W, Brusica V, O'Connor DH. 2011. Transcriptionally abundant major histocompatibility complex class I alleles are fundamental to nonhuman primate simian immunodeficiency virus-specific CD8⁺ T cell responses. *J Virol* 85:3250–3261. 21270169, PMC3067831.
 22. **O'Connor SL**, Becker EA, Weinfurter JT, Chin EN, Budde ML, Gostick E, Correll M, Gleicher M, Hughes AL, Price DA, Friedrich TC, O'Connor DH. 2012. Conditional CD8⁺ T cell escape during acute simian immunodeficiency virus infection. *J Virol* 86:605–609. 22013056, PMC3255930.
 23. Becker EA, Burns CM, León EJ, Rajabojan S, Friedman R, Friedrich TC, **O'Connor SL**, Hughes

- AL. 2012. Experimental analysis of sources of error in evolutionary studies based on Roche/454 pyrosequencing of viral genomes. *Genome Biol Evol* 4:457–465. 22436995, PMC3342875.
24. Hughes AL, Becker EA, Lauck M, Karl JA, Braasch AT, O'Connor DH, **O'Connor SL**. 2012. SIV genome-wide pyrosequencing provides a comprehensive and unbiased view of variation within and outside CD8 T lymphocyte epitopes. *PLoS One* 7:e47818. 23112852, PMC3480401.
 25. Budde ML, Greene JM, Chin EN, Ericson AJ, Scarlotta M, Cain BT, Pham NH, Becker EA, Harris M, Weinfurter JT, **O'Connor SL**, Piatak M, Lifson JD, Gostick E, Price DA, Friedrich TC, O'Connor DH. 2012. Specific CD8+ T cell responses correlate with control of simian immunodeficiency virus replication in Mauritian cynomolgus macaques. *J Virol* 86:7596–7604. 22573864, PMC3416303.
 26. *Harris M, *Burns CM, Becker EA, Braasch AT, Gostick E, Johnson RC, Broman KW, Price DA, Friedrich TC, **O'Connor SL**. 2013. Acute-phase CD8 T cell responses that select for escape variants are needed to control live attenuated simian immunodeficiency virus. *J Virol* 87:9353–9364. 23785211, PMC3754066.
 27. Greene JM, Lhost JJ, Hines PJ, Scarlotta M, Harris M, Burwitz BJ, Budde ML, Dudley DM, Pham N, Cain B, Mac Nair CE, Weiker MK, **O'Connor SL**, Friedrich TC, O'Connor DH. 2013. Adoptive transfer of lymphocytes isolated from simian immunodeficiency virus SIVmac239 Δ nef-vaccinated macaques does not affect acute-phase viral loads but may reduce chronic-phase viral loads in major histocompatibility complex-matched recipients. *J Virol* 87:7382–7392. 23616658, PMC3700297.
 28. Cain BT, Pham NH, Budde ML, Greene JM, Weinfurter JT, Scarlotta M, Harris M, Chin E, **O'Connor SL**, Friedrich TC, O'Connor DH. 2013. T cell response specificity and magnitude against SIVmac239 are not concordant in major histocompatibility complex-matched animals. *Retrovirology* 10:116. 24156675, PMC3874790.
 29. Reece JC, Alcantara S, Gooneratne S, Jegaskanda S, Amaresena T, Fernandez CS, Laurie K, Hurt A, **O'Connor SL**, Harris M, Petravic J, Martyushev A, Grimm A, Davenport MP, Stambas J, De Rose R, Kent SJ. 2013. Trivalent live attenuated influenza-simian immunodeficiency virus vaccines: efficacy and evolution of cytotoxic T lymphocyte escape in macaques. *J Virol* 87:4146–4160. 23345519, PMC3624373.
 30. Adnan S, Colantonio AD, Yu Y, Gillis J, Wong FE, Becker EA, Piatak M, Reeves RK, Lifson JD, **O'Connor SL**, Johnson RP. 2015. CD8 T cell response maturation defined by anentropic specificity and repertoire depth correlates with SIV Δ nef-induced protection. *PLoS Pathog* 11:e1004633. 25688559, PMC4334552.
 31. Qu Y, Frazer LC, O'Connell CM, Tarantal AF, Andrews CW, **O'Connor SL**, Russell AN, Sullivan JE, Poston TB, Vallejo AN, Darville T. 2015. Comparable Genital Tract Infection, Pathology, and Immunity in Rhesus Macaques Inoculated with Wild-Type or Plasmid-Deficient *Chlamydia trachomatis* Serovar D. *Infect Immun* 83:4056–4067. 26216426, PMC4567646.
 32. *Dudley DM, *Aliota MT, *Mohr EL, Weiler AM, Lehrer-Brey G, Weisgrau KL, Mohns MS, Breitbart ME, Rasheed MN, Newman CM, Gellerup DD, Moncla LH, Post J, Schultz-Darken N, Schotzko ML, Hayes JM, Eudailey JA, Moody MA, Permar SR, **O'Connor SL**, Rakasz EG, Simmons HA, Capuano S, Golos TG, Osorio JE, Friedrich TC, O'Connor DH. 2016. A rhesus macaque model of Asian-lineage Zika virus infection. *Nat Commun* 7:12204. 27352279, PMC4931337.
 33. Weiler AM, Das A, Akinyosoye O, Cui S, **O'Connor SL**, Scheef EA, Reed JS, Panganiban AT, Sacha JB, Rakasz EG, Friedrich TC, Maness NJ. 2016. Acute Viral Escape Selectively Impairs Nef-Mediated Major Histocompatibility Complex Class I Downmodulation and Increases Susceptibility to Antiviral T Cells. *J Virol* 90:2119–2126. 26637459, PMC4733980.

34. Gellerup DD, Balgeman AJ, Nelson CW, Ericson AJ, Scarlotta M, Hughes AL, **O'Connor SL**. 2016. Conditional Immune Escape during Chronic Simian Immunodeficiency Virus Infection. *J Virol* 90:545–552. 26491171, PMC4702533.
35. *Aliota MT, *Dudley DM, Newman CM, Mohr EL, Gellerup DD, Breitbach ME, Buechler CR, Rasheed MN, Mohns MS, Weiler AM, Barry GL, Weisgrau KL, Eudailey JA, Rakasz EG, Vosler LJ, Post J, Capuano S, Golos TG, Permar SR, Osorio JE, Friedrich TC, **O'Connor SL**, O'Connor DH. 2016. Heterologous Protection against Asian Zika Virus Challenge in Rhesus Macaques. *PLoS Negl Trop Dis* 10:e0005168. 27911897, PMC5135040.
36. Avalos CR, Price SL, Forsyth ER, Pin JN, Shirk EN, Bullock BT, Queen SE, Li M, Gellerup D, **O'Connor SL**, Zink MC, Mankowski JL, Gama L, Clements JE. 2016. Quantitation of Productively Infected Monocytes and Macrophages of Simian Immunodeficiency Virus-Infected Macaques. *J Virol* 90:5643–5656. 27030272, PMC4886778.
37. Sutton MS, Burns CM, Weiler AM, Balgeman AJ, Braasch A, Lehrer-Brey G, Friedrich TC, **O'Connor SL**. 2016. Vaccination with Live Attenuated Simian Immunodeficiency Virus (SIV) Protects from Mucosal, but Not Necessarily Intravenous, Challenge with a Minimally Heterologous SIV. *J Virol* 90:5541–5548. 26962218, PMC4886799.
38. Ellis A, Balgeman A, Rodgers M, Updike C, Tomko J, Maiello P, Scanga CA, **O'Connor SL**. 2017. Characterization of T Cells Specific for CFP-10 and ESAT-6 in Mycobacterium tuberculosis-Infected Mauritian Cynomolgus Macaques. *Infect Immun* 85:28115506, PMC5364300.
39. Nguyen SM, Antony KM, Dudley DM, Kohn S, Simmons HA, Wolfe B, Salamat MS, Teixeira LBC, Wiepz GJ, Thoong TH, Aliota MT, Weiler AM, Barry GL, Weisgrau KL, Vosler LJ, Mohns MS, Breitbach ME, Stewart LM, Rasheed MN, Newman CM, Graham ME, Wieben OE, Turski PA, Johnson KM, Post J, Hayes JM, Schultz-Darken N, Schotzko ML, Eudailey JA, Permar SR, Rakasz EG, Mohr EL, Capuano S, Tarantal AF, Osorio JE, **O'Connor SL**, Friedrich TC, O'Connor DH, Golos TG. 2017. Highly efficient maternal-fetal Zika virus transmission in pregnant rhesus macaques. *PLoS Pathog* 13:e1006378. 28542585, PMC5444831.
40. Dudley DM, Newman CM, Lalli J, Stewart LM, Koenig MR, Weiler AM, Semler MR, Barry GL, Zarbock KR, Mohns MS, Breitbach ME, Schultz-Darken N, Peterson E, Newton W, Mohr EL, Capuano S, Osorio JE, **O'Connor SL**, O'Connor DH, Friedrich TC, Aliota MT. 2017. Infection via mosquito bite alters Zika virus tissue tropism and replication kinetics in rhesus macaques. *Nat Commun* 8:2096. 29235456, PMC5727388.
41. Schmitt K, Mohan Kumar D, Curlin J, Remling-Mulder L, Stenglein M, **O'Connor S**, Marx P, Akkina R. 2017. Modeling the evolution of SIV sooty mangabey progenitor virus towards HIV-2 using humanized mice. *Virology* 510:175–184. 28750321, PMC5906053.
42. Gama L, Abreu CM, Shirk EN, Price SL, Li M, Laird GM, Pate KA, Wietgreffe SW, **O'Connor SL**, Pianowski L, Haase AT, Van Lint C, Siliciano RF, Clements JE, LRA-SIV SG. 2017. Reactivation of simian immunodeficiency virus reservoirs in the brain of virally suppressed macaques. *AIDS* 31:5–14. 27898590, PMC5131686.
43. Carroll T, Lo M, Lanteri M, Dutra J, Zarbock K, Silveira P, Rourke T, Ma ZM, Fritts L, **O'Connor S**, Busch M, Miller CJ. 2017. Zika virus preferentially replicates in the female reproductive tract after vaginal inoculation of rhesus macaques. *PLoS Pathog* 13:e1006537. 28746373, PMC5546709.
44. Sutton MS, Ellis-Connell A, Moriarty RV, Balgeman AJ, Gellerup D, Barry G, Weiler AM, Friedrich TC, **O'Connor SL**. 2018. Acute-Phase CD4+ T Cell Responses Targeting Invariant Viral Regions Are Associated with Control of Live Attenuated Simian Immunodeficiency Virus. *J Virol* 92:30111562, PMC6189504.

45. Ellis-Connell AL, Balgeman AJ, Zarbock KR, Barry G, Weiler A, Egan JO, Jeng EK, Friedrich T, Miller JS, Haase AT, Schacker TW, Wong HC, Rakasz E, **O'Connor SL**. 2018. ALT-803 Transiently Reduces Simian Immunodeficiency Virus Replication in the Absence of Antiretroviral Treatment. *J Virol* 92:e01748–17. 29118125, PMC5774892.
46. Paquin-Proulx D, Costa PR, Terrassani Silveira CG, Marmorato MP, Cerqueira NB, Sutton MS, **O'Connor SL**, Carvalho KI, Nixon DF, Kallas EG. 2018. Latent Mycobacterium tuberculosis Infection Is Associated With a Higher Frequency of Mucosal-Associated Invariant T and Invariant Natural Killer T Cells. *Front Immunol* 9:1394. 29971068, PMC6018487.
47. Aliota MT, Dudley DM, Newman CM, Weger-Lucarelli J, Stewart LM, Koenig MR, Breitbach ME, Weiler AM, Semler MR, Barry GL, Zarbock KR, Haj AK, Moriarty RV, Mohns MS, Mohr EL, Venturi V, Schultz-Darken N, Peterson E, Newton W, Schotzko ML, Simmons HA, Mejia A, Hayes JM, Capuano S, Davenport MP, Friedrich TC, Ebel GD, **O'Connor SL**, O'Connor DH. 2018. Molecularly barcoded Zika virus libraries to probe in vivo evolutionary dynamics. *PLoS Pathog* 14:e1006964. 29590202, PMC5891079.
48. Mohr EL, Block LN, Newman CM, Stewart LM, Koenig M, Semler M, Breitbach ME, Teixeira LBC, Zeng X, Weiler AM, Barry GL, Thoong TH, Wiepz GJ, Dudley DM, Simmons HA, Mejia A, Morgan TK, Salamat MS, Kohn S, Antony KM, Aliota MT, Mohns MS, Hayes JM, Schultz-Darken N, Schotzko ML, Peterson E, Capuano S, Osorio JE, **O'Connor SL**, Friedrich TC, O'Connor DH, Golos TG. 2018. Ocular and uteroplacental pathology in a macaque pregnancy with congenital Zika virus infection. *PLoS One* 13:e0190617. 29381706, PMC5790226.
49. Rodgers MA, Ameel C, Ellis-Connell AL, Balgeman AJ, Maiello P, Barry GL, Friedrich TC, Klein E, **O'Connor SL**, Scanga CA. 2018. Preexisting Simian Immunodeficiency Virus Infection Increases Susceptibility to Tuberculosis in Mauritian Cynomolgus Macaques. *Infect Immun* 86:e00565–18. 30224552, PMC6246917.
50. Schmitt K, Curlin J, Kumar DM, Remling-Mulder L, Feely S, Stenglein M, **O'Connor S**, Marx P, Akkina R. 2018. SIV progenitor evolution toward HIV: A humanized mouse surrogate model for SIVsm adaptation toward HIV-2. *J Med Primatol* 47:298–301. 30255956,
51. Weger-Lucarelli J, Garcia SM, Rückert C, Byas A, **O'Connor SL**, Aliota MT, Friedrich TC, O'Connor DH, Ebel GD. 2018. Using barcoded Zika virus to assess virus population structure in vitro and in Aedes aegypti mosquitoes. *Virology* 521:138–148. 29935423, PMC6309320.
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 57. Ellis AL, Balgeman AJ, Larson EC, Rodgers MA, Ameel C, Baranowski T, Kannal N, Maiello P, Juno JA, Scanga CA, **O'Connor SL**. 2020. MAIT cells are functionally impaired in a Mauritian cynomolgus macaque model of SIV and Mtb co-infection. *PLoS Pathog* 16:e1008585. 32433713, PMC7266356.
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 59. Moreno GK*, Braun KM*, Riemersma KK*, Martin MA, Halfmann PJ, Crooks CM, Prall T, Baker D, Baczenas JJ, Heffron AS, Ramuta M, Khubbar M, Weiler AM, Accola MA, Rehrauer WM, **O'Connor SL**, Safdar N, Pepperell CS, Dasu T, Bhattacharyya S, Kawaoka Y, Koelle K, O'Connor DH, Friedrich TC. 2020 Distinct patterns of SARS-CoV-2 transmission in two nearby communities in Wisconsin, USA. *Nature Communications*. Accepted.

* -- authors contributed equally to the manuscript

B. Papers submitted to peer reviewed journals

1. Moriarty RV, Fesser N, Sutton M, Venturi V, Davenport MP, Schlub T, and **O'Connor SL**. 2020. Validation of multiplex PCR sequencing assay of SIV. Submitted *Virology Journal*.
2. Cody JW, Ellis A, O'Connor SL, and Pienaar E. 2020. Mathematical modeling of N-803 treatment in SIV-infected non-human primates. Submitted *PLoS Computational Biology*.
3. Newman CM, Dudley DM, Wiseman RW, McLaughlin MT, Karl JA, Stauss MR, Weiler AM, Bliss MI, Ramuta MD, Shortreed CG, Haj AK, Heffron AS, Reynolds MR, Fauser KN, Burmeister CB, Hall KL, Friedrich TC, **O'Connor SL**, O'Connor DH. 2020 Initial evaluation of a mobile SARS-CoV-2 RT-LAMP testing strategy. Submitted to *Emerging Infectious Diseases* and rejected. Currently being revised.

C. Research Presentations and Posters

1. **Feinberg, S.L.**, Kirby, J.R., Ordal, G.W., et. al. "The role of CheC, CheD, and CheY in methanol production during chemotaxis of *Bacillus subtilis*." Annual Biochemistry Graduate Student Conference, University of Illinois at Urbana-Champaign. (poster, 1997)
2. **Feinberg, S.L.**, Rosiak, K., and Fahrbach, S.E. "The effects of Polychlorinated Biphenyls on foraging behavior of the honeybee." Howard Hughes Program for Undergraduate Research in the Life Sciences at UIUC. (poster, 1997)
3. **Feinberg, S.L.**, Kristich, C.J., Ordal, G.W., et. al. "The role of CheC and CheD in chemotaxis of *Bacillus subtilis*." Colgate-Palmolive Undergraduate Research Conference, University of Illinois at Urbana-Champaign. (oral presentation, 1998)
4. **Feinberg, S.L.**, Kristich, C.J., Ordal, G.W., et. al. "The role of CheC and CheD in chemotaxis of *Bacillus subtilis*." 1999 ASM General Meeting, Chicago, IL. (poster, 1999)

5. **Feinberg, S.L.**, Shumway, S.D., Miyamoto, S., et. al. "The role of the B cell receptor in inducible and constitutive NF- κ B activity" NIH Molecular Biosciences Training Grant Retreat, University of Wisconsin-Madison. (poster, 2000)
6. **Feinberg, S.L.**, Shumway, S.D., Miyamoto, S., et. al. "The BCR is not required for constitutive NF- κ B activity in WEHI 231 cells." Promega and Fluno Center, Madison, WI. (poster, 2001)
7. **Feinberg, S.L.**, Shumway, S.D., Miyamoto, S., et. al. "The role of the I κ B Kinase in proteasome-independent degradation of I κ B α in B cells." Keystone, CO. (poster, 2002)
8. **O'Connor, S.L.**, Shumway, S.D., Miyamoto, S., et. al. "Constitutive I κ B α degradation in B cells is distinct from β -TrCP dependent inducible degradation of I κ B α ." Cold Spring Harbor, NY. (poster, 2003)
9. **O'Connor, S.L.**, Shumway, S.D., Miyamoto, S. et. al. "IKK-dependent but proteasome-inhibitor resistant (PIR) I κ B α degradation and NF- κ B activation pathway." Keystone Meeting, Snowbird, UT. (poster, 2004)
10. **O'Connor, S.L.**, Markovina, S., and Miyamoto, S. "Proteasome inhibitor resistant NF- κ B activity in B cells and multiple myeloma." Immunology Symposium, UW-Madison. (poster, 2005)
11. **O'Connor, S.L.**, Wojcechowskyj, J., Blasky, A.J., and O'Connor, D.H. "SIV viral evolution in MHC identical macaques." 24th Annual Symposium on Nonhuman Primate Models for AIDS, Atlanta, GA. (poster, 2006)
12. Greene, J.M., Gopon, T., Blasky, A.J., Wojcechowskyj, J., Wiseman, R.W., **O'Connor, S.L.**, and O'Connor, D.H. "SIVmac239 infection of MHC identical Mauritian cynomolgus macaques." 24th Annual Symposium on Nonhuman Primate Models for AIDS, Atlanta, GA. (poster, 2006)
13. Wiseman, R.W., Greene, J.M., Wojcechowskyj, J., Blasky, A.J., Karl, J.A., Pendley, C.J., Becker, E.A., Burwitz, B., **O'Connor, S.L.**, and O'Connor, D.H. "MHC-identical cynomolgus macaques from Mauritius for SIVmac239 pathogenesis and vaccine development studies." Molecular and Cellular Determinants of HIV Pathogenesis, Whistler, British Columbia, Canada (2007)
14. Greene, J.M., Burwitz, B., Blasky, A.J., Wiseman, R.W., **O'Connor, S.L.**, and O'Connor, D.H. "Allogeneic lymphocyte transfer is SIV+ macaques." 25th Annual Symposium on Nonhuman Primate Models for AIDS, Monterey Bay, CA. (2007)
15. **O'Connor, S.L.**, Burwitz, B., Greene, J.M., Wiseman, R.W., Blasky, A.J., O'Connor, D.H. "MHC haplotype-associated SIV-specific immune responses in Mauritian cynomolgus macaques." 25th Annual Symposium on Nonhuman Primate Models for AIDS, Monterey Bay, CA. (poster, 2007).
16. **O'Connor, S.L.**, Burwitz, B., Lhost, J., Pendley, C., Greene, J., Blasky, A., Wiseman, R.W., and O'Connor, D.H. "The Effect of MHC Homozygosity on SIV Viral Load is Independent of the Protective Capacity of the MHC Alleles." 26th Annual Symposium on Nonhuman Primate Models for AIDS. San Juan, Puerto Rico. (poster, 2008)
17. **Wiseman, R.**, Blasky, A., Karl, J.A., Pendley, C.J., Becker, E.A., Campbell, K, Detmer, A.M., Greene, J.M., Burwitz, B., Scardino, L., Bimber, B.N., **O'Connor, S.L.**, and O'Connor, D.H. A Rapid Sequence-Based Technique for Comprehensive Macaque MHC Class I Genotyping. 3rd International Conference on Primate Genomics, Seattle, WA (2008)
18. **Dudley, D.**, Budde, M., Bimber, B.N., Wiseman, R.W., **O'Connor, S.L.**, and O'Connor, D.H. Identification of archival virus from later-stage samples using ultra-deep sequencing. 5th IAS Conference on HIV Pathogenesis, Treatment, and Prevention, Cape Town, South Africa (2009)

19. **O'Connor, S.L.** Dudley, D., Sanabani, S., Kallas, E., and O'Connor, D.H. "Learning about the HIV Epidemic Through Brazilian Eyes." 5th Annual Global Health Symposium. Madison, WI. (oral presentation, 2009)
20. **O'Connor, S.L.** "Identification of MHC heterozygote advantage in SIV-infected Mauritian cynomolgus macaques." 27th Annual Symposium on Nonhuman Primate Models for AIDS. Boston, MA. (oral presentation, 2009)
21. Burns, C.M., Braasch, A.T., Friedrich, T.C., Broman, K.W., Kallas, E.G. O'Connor, D.H., and **O'Connor, S.L.** "Generation of a CD8 T cell knockout vaccine for Mauritian cynomolgus macaques." CHAVI 6th Annual Retreat. Durham, NC. (poster presentation, 2010)
22. Burns, C.M., Braasch, A.T., Friedrich, T.C., Broman, K.W., Kallas, E.G. O'Connor, D.H., and **O'Connor, S.L.** "Generation of a CD8 T cell knockout vaccine for Mauritian cynomolgus macaques." 28th Annual Symposium on Nonhuman Primate Models for AIDS. New Orleans, LA. (poster presentation, 2010)
23. **O'Connor, S.L.**, Burns, C.M., Braasch, A.T., Alpert, M.D., Johnson, R., Evans, D.T., Friedrich, T.C., Kallas, E.G., and O'Connor, D.H. "Vaccine-elicited immunodominant CD8 T lymphocyte responses are not required to protect animals from pathogenic SIV challenge." CHAVI 7th Annual Retreat. Durham, NC. (poster presentation, 2011).
24. **O'Connor, S.L.**, Braasch, A.T., Burns, C.M., Alpert, M.D., Johnson, R., Evans, D.T., Friedrich, T.C., Kallas, E.G., and O'Connor, D.H. "Defining the need for immunodominant CD8 T lymphocyte responses in an HIV/SIV vaccine. 29th Annual Symposium on Nonhuman Primate Models for AIDS. Seattle, WA. (Poster presentation, 2011)
25. **Becker, E.A.**, Lauck, M., Pandrea, I., Ma, D., Goldberg, T., Apetrei, C., **O'Connor, S.L.**, and O'Connor, D.H. "Characterization of viral variants and strain selection in elite controlled SIVagmsab infection of rhesus macaques." 29th Annual Symposium on Nonhuman Primate Models for AIDS. Seattle, WA. (Oral presentation, 2011).
26. **Harris, M.**, Scarlotta, M., O'Connor, D.H., and **O'Connor, S.L.** "Prediction of cryptic epitopes by deep sequencing SIV from MHC-matched macaques." 30th Annual Symposium on Nonhuman Primate Models for AIDS. San Antonio, TX. (Oral presentation, 2012)
27. **O'Connor, S.L.**, Harris, M., Burns, C.M., Braasch, A.T., Gostick, E., and Price, D.A. "Acute phase subdominant CD8 T cell responses do not control SIV replication." 30th Annual Symposium on Nonhuman Primate Models for AIDS. San Antonio, TX. (Oral presentation, 2012)
28. Harris, M., Burns, C.M., Becker, E.A., Braasch, A.T., Gostick, E., Price, D.A., Friedrich, T.C., and **O'Connor, S.L.** "Subdominant T cell responses elicited by a pre-escaped SIV select for sequence variants during acute infection." HIV Vaccines Keystone Symposia. Keystone, CO. (Poster presentation, 2013).
29. Gellerup, D., Balgeman, A., Van Pay, A., Sutton, M., Harris, M., Becker, E., and **O'Connor, S.L.** "CD8 T Cell Based HIV Vaccines – Is Targeting Conserved Epitopes the Answer?" Wisc-e-sota Meeting. LaCrosse, WI (Poster presentation, 2014)
30. Gellerup, D., Balgeman, A., Van Pay, A., Sutton, M., Harris, M., Becker, E., and **O'Connor, S.L.** "CD8 T Cell Based HIV Vaccines – Is Targeting Conserved Epitopes the Answer?" HIV R4P Meeting. Capetown, South Africa (Poster presentation, 2014)
31. Gellerup, D., Balgeman, A., Van Pay, A., Sutton, M., Harris, M., Becker, E., and **O'Connor, S.L.** "CD8 T Cell Based HIV Vaccines – Are Conserved Epitopes the Answer?" 32nd Annual Symposium

on Nonhuman Primate Models for AIDS. Portland, OR. (Oral presentation, 2014)

32. Gellerup, D. and **O'Connor, S.L.** "Pathogen Fee-for-service sequencing at the WNPRC." Symposium on biomedical research using Mauritian macaques. Madison, WI (Poster presentation, 2014)
33. Gellerup, D. and **O'Connor, S.L.** "Pathogen Fee-for-service sequencing at the WNPRC." Wisc-e-sota Meeting. LaCrosse, WI (Poster presentation, 2014)
34. Sutton, M., Balgeman, A., Gellerup, D., Ellis, A., and **O'Connor, S.L.** "Evaluating immunity elicited by CD8 T cell responses targeting invariant epitopes." Michael N. Hart Pathology Research Day. Madison, WI. (Poster presentation, 2015).
35. Sutton, M., Balgeman, A., Gellerup, D., Ellis, A., VanPay, A., Harris, M., Becker, E., and **O'Connor, S.L.** "Evaluating immunity elicited by CD8 T cell responses targeting invariant epitopes." Wisc-e-sota Meeting. LaCrosse, WI (oral presentation, 2015).
36. Gellerup, D., Schweigert, H., Keele, B., and **O'Connor, S.L.** "Tracking SIV infection and viral evolution in vivo using a barcoded virus stock" 33rd Annual Symposium on Nonhuman Primate Models for AIDS. Monterey, CA. (oral presentation, 2015)
37. Balgeman, A., Ellis-Connell, A., Tomko, J., Maiello, P., Scanga, C., and **O'Connor, S.L.** "Mapping M. tuberculosis epitopes restricted by common MHC alleles in Mauritian cynomolgus macaques." 33rd Annual Symposium on Nonhuman Primate Models for AIDS. Monterey, CA. (poster presentation, 2015)
38. Sutton, M., Balgeman, A., Gellerup, D., and **O'Connor, S.L.** "Evaluating immunity elicited by CD8 T cell responses targeting invariant epitopes." 33rd Annual Symposium on Nonhuman Primate Models for AIDS. Monterey, CA. (poster presentation, 2015)
39. Ellis-Connell, A., Balgeman, A., Tomko, J., Maiello, P., Scanga, C.A., and **O'Connor, S.L.** "Mapping M. tuberculosis epitopes restricted by common MHC alleles in Mauritian cynomolgus macaques." Keystone Meeting: Tuberculosis Co-morbidities and Immunopathogenesis. Keystone, CO. (Amy presented a poster at the Feb 2016 meeting).
40. Rodgers, M., O'Malley, M., Tomko, J., Maiello, P., Updike, C., Ellis, A., Balgeman, A., **O'Connor, S.L.**, and Scanga, C.A. "Modeling Tuberculosis in Mauritian cynomolgus macaques." Keystone Meeting: Tuberculosis Co-morbidities and Immunopathogenesis. Keystone, CO. (Mark presented a poster at the Feb 2016 meeting)
41. Sutton, M., Balgeman, A., Ellis, A., Gellerup, D., and **O'Connor, S.L.** Importance of CD8 T cell responses targeting variable epitopes in SIV. Keystone Meeting: HIV Vaccines. Olympic Valley, CA. (Matt presented a poster at the March 2016 meeting)
42. Gellerup, D., Schweigert, H., Keele, B.F., and **O'Connor, S.L.** Tracking SIV infection and viral evolution in vivo using a barcoded virus stock. Keystone Meeting: HIV Vaccines. Olympic Valley, CA. (Shelby gave an oral presentation and present a poster at the March 2016 meeting)
43. Ellis-Connell, A., Balgeman, A., Jeng, E., Wong, H., Rakasz, E., and **O'Connor, S.L.** "The IL-15 superagonist ALT-803 decreases plasma viral loads in rhesus macaques in the absence of antiretroviral therapy through host immunomodulation." 34th Annual Symposium on Nonhuman Primate Models for AIDS. New Orleans, LA. (Amy Ellis gave an oral presentation at the October 2016 meeting).
44. Rodgers, M., O'Malley, M., Tomko, J., Maiello, P., Updike, C., Ellis, A., Balgeman, A., Friedrich, T., Barry, G., **O'Connor, S.L.**, and Scanga, C.A. "Modeling HIV-M.tuberculosis co-infection in

Mauritian cynomolgus macaques.” 34th Annual Symposium on Nonhuman Primate Models for AIDS. New Orleans, LA. (Charles Scanga presented the poster at the October 2016 meeting).

45. Sutton, M., Ellis, A., Balgeman, A., Barry, G., Weiler, A., Gellerup, D., Schweigert, H., and **O'Connor, S.L.** “Redirecting CD8 T cells in live attenuated SIV infection leads to delayed viral control.” 34th Annual Symposium on Nonhuman Primate Models for AIDS. New Orleans, LA. (Matt Sutton presented a poster at the October 2016 meeting).
46. Balgeman, A., Ellis-Connell, A., Rodgers, M., Updike, C., Tomko, J., Scanga, C.A., and **O'Connor, S.L.** Mapping M. tuberculosis epitopes in Mauritian cynomolgus macaques restricted by common MHC alleles. Keystone Meeting: New developments in our basic understanding of Tuberculosis. 2017. Vancouver, Canada (Alexis presented a poster at the January 2017 meeting)
47. **O'Connor, S.L.**, Ellis, A.L., Balgeman, A.J., Rodgers, M., Updike, C., Maiello, P., and Scanga, C.A. “Characterizing SIV/M.tuberculosis co-infection in Mauritian cynomolgus macaques (MCMs). Keystone Meeting: New developments in our basic understanding of Tuberculosis. 2017. Vancouver, Canada (Shelby presented a poster at the January 2017 meeting)
48. Zarbock, K., Silveira, P., O'Connor, DH, and **O'Connor, SL.** “Smaller amplicon sizes increase genome coverage of Zika sequenced from low viral loads.” Global Health Symposium at UW-Madison. 2017. (Katie Zarbock presented a poster at the 2017 meeting)
49. Zarbock, K., Silveira, P., Team ZEST, Ebel, G., O'Connor, DH., and **O'Connor, S.L.** “Deep sequencing barcoded Zika virus from macaques using a small amplicon approach.” Vector Borne Viruses Symposium. Rocky Mountain National Laboratories. 2017. (Shelby presented a poster at the 2017 meeting)
50. Ellis, A., Balgeman, A., Zarbock, K., Barry, G., Weiler, A., Friedrich, T., Miller, J., Schacker, T., Haase, A., Jeng, E., Egan, J., Wong, H., Rakasz, E., and **O'Connor, S.** “The IL-15 Superagonist ALT-803 Decreases Plasma Viral Loads in SIV Infected Rhesus Macaques in the Absence of Antiretroviral Therapy.” 35th Annual Symposium on Nonhuman Primate Models for AIDS. Madison, WI. 2017. (Amy Ellis presented an oral presentation at the 2017 meeting).
51. Sutton, M., Balgeman, A., Ellis, A., Barry, G., Weiler, A., Von Bredow, B., Gellerup, D., Evans, D., Friedrich, T., and **O'Connor, S.** “CD8 T Cells are Not Necessarily Required for Control of SIV Viremia in Mauritian Cynomolgus Macaques.” 35th Annual Symposium on Nonhuman Primate Models for AIDS. Madison, WI. 2017. (Matt Sutton presented an oral presentation at the 2017 meeting).
52. Rodgers, M., Updike, C., Ellis, A., Balgeman, A., Maiello, P., Friedrich, T., Barry, G., Mattila, J., **O'Connor, S.** and Scanga, C. “Pre-existing SIV Infection Increases Susceptibility of Mauritian Cynomolgus Macaques to M. tuberculosis.” 35th Annual Symposium on Nonhuman Primate Models for AIDS. Madison, WI. 2017. (Charles Scanga presented an oral presentation at the 2017 meeting).
53. Ellis-Connell, A., Balgeman, A., Rodgers, M., Updike, C., Tomko, J., Maiello, PI, Baranowski, T., Scanga, CA., and O'Connor, SL. “Characterization of MR-1 tetramer-positive cells in a cynomolgus macaque model of M. tuberculosis/SIV co-infection.” CD1-MR1 meeting Napa Valley, CA. 2017. (Amy presented a poster presentation at the 2017 meeting)
54. Ellis, A., Kannal, N., Treves, R., Balgeman, A., and O'Connor, SL. “Detection of polymorphisms in nonhuman primate MR1 and CD1 alleles.” CD1-MR1 meeting. Napa Valley, CA. 2017. (Shelby presented a poster presentation at the 2017 meeting)
55. Ellis-Connell, A., Balgeman, A., Rodgers, M., Ameel, C., Tomko, J., Maiello, P., Baranowski,

- T., Scanga, CA., and **O'Connor, SL**. "Characterization of MR-1 tetramer-positive cells in a cynomolgus macaque model of M. tuberculosis/SIV co-infection." Keystone Symposia: HIV and Co-infections. Whistler, British Columbia. 2018 (Amy presented a poster at the 2018 meeting)
56. **O'Connor, SL**, Ellis, A., Balgeman, A., Moriarty, R., Mathiapranam, J., Rodgers, M., Ameel, C., Baranowski, T., and Scanga, CA., "Impact of M. tuberculosis infection on SIV replication in macaques." Keystone Symposia: HIV and Co-infections. Whistler, British Columbia. 2018 (Shelby presented a poster at the 2018 meeting)
57. Balgeman, A., Ellis-Connell, A., Rodgers, M., Ameel, C., Tomko, J., Scanga, CA, and **O'Connor, SL**. "Mapping M. tuberculosis epitopes restricted by common Mauritian cynomolgus MHC alleles." Keystone Symposia: HIV and Co-infections. Whistler, British Columbia. 2018 (Alexis presented a poster at the 2018 meeting)
58. **O'Connor, S.L.**, Ellis, A., Balgeman, A., Larson, E., Rodgers, M., Juno, J., and Scanga, C. "Minimal impact of SIV infection on MAIT cells at six weeks after Mtb co-infection." EMBO Workshop: CD1-MR1: Beyond MHC-restricted lymphocytes. Oxford, UK. 2019. (Shelby presented an oral presentation at the 2019 meeting)
59. Ellis, A.L., Larson, E., Balgeman, A., Rodgers, M., Ameel, C., Baranowski, T., Scanga, C., and **O'Connor, S.L**. "Pre-existing SIVmac239 infection alters the immunological response to early M. tuberculosis infection in a Mauritian cynomolgus macaque model of SIV/M.tb co-infection." 37th Annual Symposium on Nonhuman Primate Models for AIDS. San Antonio, TX. 2019. (Amy presented a poster at the 2019 meeting)
60. Balgeman, A., Ellis, A.L., Larson, E., Rodgers, M., Ameel, C. Baranowski, T., Juno, J., Scanga, C., and **O'Connor, S.L**. "Characterization of MAIT cells in Mauritian cynomolgus macaques (MCM) SIV/Mtb co-infection." 37th Annual Symposium on Nonhuman Primate Models for AIDS. San Antonio, TX. 2019. (Lexie presented an oral presentation at the 2019 meeting)
61. Larson E.C., Rodgers M.A., Ellis A, Ameel C., Gleim J., Gubernat A.K., Balgeman A., Moriarty R, Maiello P., Darrah P., Roederer M., Seder R.A., **O'Connor S.**, and Scanga C.A.. Vaccination with Intravenous BCG Confers Remarkable Protection from Tuberculosis in SIV+ Macaques. Keystone Symposia: Tuberculosis: Immunity and Immune Evasion. Santa Fe, New Mexico. 2020. (Dr. Scanga presented a poster and oral presentation)
62. Moriarty R.V., Rodgers M.A., Balgeman A., Ellis A., Ameel C., Baranowski T., Fortune S., Scanga C.A., and **O'Connor S**. SIV and Mycobacterium tuberculosis replication dynamics in co-infected Mauritian cynomolgus macaques (MCMs). Keystone Symposia: Tuberculosis: Immunity and Immune Evasion. Santa Fe, New Mexico. 2020. (Ms. Moriarty presented a poster).
63. Larson E.C., Ellis A., Rodgers M.A., Ameel C., Baranowski T., Balgeman A., Moriarty R.V., Maiello P., **O'Connor S.**, and Scanga C.A. Chronic SIV Infection Alters T cell Phenotypes During the Early Stages of M. tuberculosis Co-infection. Keystone Symposia: Tuberculosis: Immunity and Immune Evasion. Santa Fe, New Mexico. 2020. (Dr. Larson presented a poster).

Bold = S.L. O'Connor

Underline (or listed) = presenter

D. Invited Presentations and Seminars

1. "ABI road: Something in the way SIV moves." Universidade Federal de Sao Paulo. Sao Paulo, Brazil. May 2007
2. "Genetic factors associated with HIV susceptibility and resistance." USP/UNIFESP HIV

Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. February 2008.

3. "Genetic factors associated with HIV susceptibility and resistance." USP/UNIFESP HIV Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. March 2009.
4. "Mauritian cynomolgus macaques: A genetically simple animal model to study SIV disease." Biochemistry 910 at UW-Madison. April 2009.
5. "Construction of a CD8 T cell epitope knockout live attenuated SIV vaccine for Mauritian cynomolgus macaques." CHAVI 5th Annual Retreat. Durham, NC. (oral and poster presentations) October 2009.
6. "Mauritian cynomolgus macaques: A model to study the role of CD8-TL responses and control of SIV." Universidade Federal de Sao Paulo. Sao Paulo, Brazil. November 2009.
7. "Defining the need for epitope-specific CD8 T cells in a successful HIV vaccine." Fall HVTN Conference. Seattle, WA. November 2009.
8. "Genetic factors associated with HIV susceptibility and resistance." USP/UNIFESP HIV Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. February 2010.
9. "Genetically simple studies to understand complex SIV pathogenesis in macaques." NCI-Frederick. Frederick, MD. May 2010.
10. "Creating custom viruses to understand the mechanism of live attenuated SIV vaccine protection." University of South Carolina. Columbia, SC. Aug 2010.
11. "Genetic factors associated with HIV susceptibility and resistance." USP/UNIFESP HIV Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. March 2011.
12. "Defining the Need for Epitope Specific Immunodominant CD8 T cells in a Successful HIV Vaccine." HVTN Conference, Washington DC, June 2011.
13. "SIV/HIV vaccines: Are CD8 T cell responses the answer?" Dept. of Pathology and Laboratory Medicine Seminar Series, University of Wisconsin-Madison, September 2011.
14. "SIV/TB co-infections in cynomolgus macaques." Global Infectious Disease Working Group at UW-Madison. October 2011.
15. "Simplifying studies of T cell immunity with Mauritian cynomolgus macaques." University of Pittsburgh, November 2011.
16. "SIV/TB co-infections in cynomolgus macaques." University of Wisconsin-Madison, TB Day, March 2012.
17. "SIV/TB co-infections in cynomolgus macaques." Lab Virologia Molecular, IB-UFRJ, Rio de Janeiro, Brazil, March 2012.
18. "Genetic factors associated with HIV susceptibility and resistance." USP/UNIFESP HIV Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. April 2012.
19. "Simplifying studies of T cell immunity with Mauritian cynomolgus macaques." USP/UNIFESP HIV Pathogenesis Course, Universidade Federal de Sao Paulo. Sao Paulo, Brazil. April 2012.
20. "SIV/TB co-infections in cynomolgus macaques." 1st Annual Michael N. Hart, MD Pathology Research Day. August 2012.
21. "T cell immunity to SIV and Mtb in Mauritian macaques." Biochemistry 910 seminar series.

September 2012.

22. "T cell immunity to SIV and Mtb in Mauritian macaques." MMI seminar series. December 2012.
23. "T cells are not created equal: Defining the specificity and quality of CD8 T cells targeting SIV." 2nd Annual Michael N. Hart, MD Pathology Research Day. Madison, WI. August 2013.
24. "Inequality among HIV/SIV specific CD8 T cells." Universidade Federal de Sao Paulo. Sao Paulo, Brazil. November 2013.
25. "Should HIV/SIV specific CD8 T cells target conserved epitopes?" University of South Carolina. Columbia, South Carolina. January 2014.
26. "Will acute CD8 T cells targeting conserved epitopes be central to an HIV vaccine?" Johns Hopkins University. Baltimore, MD. August 2014.
27. "Will acute CD8 T cells targeting conserved epitopes be central to an HIV vaccine?" 3rd Annual Michael N. Hart, MD Pathology Research Day. Madison WI. August 2014.
28. "Are CD8 T cell based vaccines still relevant?" Federal University of Rio de Janeiro and University of Sao Paulo, Brazil. November 2014.
29. "Embarking upon Mtb and SIV/Mtb co-infection studies in Mauritian cynomolgus macaques." University of Sao Paulo, Federal University of Rio de Janeiro, and George Washington University. May 2015.
30. "Control of SIV replication by CD8 T cells targeting variable and conserved epitopes." 28th Brazilian Congress of Microbiology Meeting. Florianopolis, Brazil. October 2015.
31. "Control of SIV replication by CD8 T cells targeting variable and conserved epitopes." 28th Brazilian Congress of Microbiology Meeting. University of Minnesota. October 2015.
32. "Developing the SIV/Mtb co-infection model of Mauritian cynomolgus macaques." University of Sao Paulo, Brazil. May 2016.
33. "Embarking upon Mtb and SIV/Mtb co-infection studies in Mauritian cynomolgus macaques." Federal University of Rio de Janeiro, Brazil. May 2016.
34. "CD8 T cell responses during SIV and SIV/Mtb co-infections." IMV seminar, UW-Madison. October 2016.
35. "The Nonhuman Primate Model of Mycobacterium tuberculosis." 41st Brazilian Society of Immunology meeting, Campos do Jordao, Brazil. October 2016.
36. "Transient control of SIV replication by the IL-15 superagonist ALT-803." mHIVE seminar at the University of Melbourne, Australia. April 2017.
37. "SIV/M. tuberculosis co-infection of Mauritian cynomolgus macaques." Dept of Microbiology and Immunology Seminar Series, University of Melbourne, Australia. April 2017.
38. "Turbo-culosis: Does SIV enhance TB disease?" University of Hawaii seminar. December 2017.
39. "Turbo-culosis: Does SIV enhance TB disease?" Duke University seminar. February 2018.
40. "Turbo-culosis: Does SIV enhance TB disease?" Unviersity of Sao Paulo, Brazil seminar. March 2018.
41. "Eliciting effective T cell immunity in SIV+ NHPs with unfavorable genetics." NIH AIDS Vaccine

Research Subcommittee meeting. Washington DC. June 2018.

42. "Use of Nonhuman Primates in TB vaccine research." IMPAACT (International Maternal Pediatric Adolescent AIDS Clinical Trials Network) meeting. Washington DC. June 2018.
43. "Turbo-culosis: Does SIV enhance TB disease?" University of Tokyo, Japan seminar. August 2018.
44. "SIV/Mtb co-infection in macaques." Immunology theme data presentation. Melbourne, Australia. September 2018.
45. "The IL-15 superagonist N-803 enhances antiviral cellular immunity in macaques." Australasian HIV & AIDS Conference, invited short talk. Sydney, Australia. September 2018.
46. "SIV and M. tuberculosis co-infection in macaques." Australian Animal Health Laboratory. Geelong, Australia seminar. March 2019.
47. "Preventing Tuberculosis in SIV+ macaques with IV BCG." Beth Israel Deaconess Medical Center CVVR Seminar series. May 2020 (via Zoom).
48. "Sequencing of SARS-CoV-2 stocks used for hamster and macaque studies." World Health Organization Animal Models Weekly Teleconference. October 8, 2020. (via Webex).

E. Book Chapters:

1. **O'Connor, SL.** "Deep Sequencing of HIV-1 and SIV". *HIV-1 Proteomics: From Discovery to Clinical Application*. Ed. David R. Graham and David E. Ott. Publisher: Springer. (2016)

IV. Service & Outreach

A. Scientific committees and Session chairs:

Year	Committee Description
2007-2008	Member of the "26 th Annual Symposium on Nonhuman Primate Models for AIDS" organizational and scientific committees, hosted by UW-Madison
2007-2008	Construct and maintain website for the "26 th Annual Symposium on Nonhuman Primate Models for AIDS", hosted by UW-Madison
2011	Member of the organizing committee and a presenter for an Early Stage Investigator workshop ("Starting your own lab") hosted by the HVTN. Seattle, WA
2013	Accepted into the Early Career Reviewer Program at the Center for Scientific Review
2014	Member of the scientific committee for "Symposium on biomedical research using Mauritian macaques" that was held at UW-Madison
2014	Member of the "32 nd Annual Symposium on Nonhuman Primate Models for AIDS" scientific committee held in Portland, Oregon
2014	Session co-chair for the Natural Host/New Models session at the "32 nd Annual Symposium on Nonhuman Primate Models for AIDS" in Portland, Oregon
2017	Co-Chair of the "35 th Annual Symposium on Nonhuman Primate Models for AIDS" held at UW-Madison
2017	Co-Chair for a webinar supported by the Global HIV Vaccine Enterprise on NHP models
2018	Co-Chair for a Workshop on HIV, TB and other Co-infections held at the Keystone Symposia: HIV and Co-Infections Meeting in Whistler, British Columbia

2018	Co-Chair of Plenary 2 at the Australasian HIV & AIDS Conference
2020	Member of the Advisory board for the HVTN Translational ESI Conference

B. Study Sections/Grant Reviews:

Year	Study Section
2013	NIH HIVRAD program projects (November 2013)
2014	NIH R01 Special emphasis panel: Functional Glycomics in HIV Vaccines (April 2014)
2014	NIH HIVRAD program projects (November 2014)
2014	NIH U19 "Beyond HAART: Innovative Approaches to Cure HIV" (December 2014)
2015	NIH P01 Special emphasis panel: Investigator Initiated Program Project (April 2015)
2015	ICTR Novel Methods Pilot Awards Program (May 2015)
2015	NIH P01 Special Emphasis Panel of Investigator-initiated Program Project (November 2015)
2015	NIH SPF Macaque colonies (November 2015)
2015	NIH Consortia for AIDS Vaccine Research in Nonhuman Primates (December 2015)
2015	NIH Innovation for HIV Vaccine Discovery (December 2015)
2016	NIH U24 Nonhuman Primate Reagent Resource (April 2016)
2016	NIH N01 Pre-Clinical Models of Infectious Diseases (December 2016)
2017	NIH R01 Partnerships for Development of Vaccines to Prevent Mycobacterium tuberculosis Infection and/or Tuberculosis Disease (July 2017)
2018	Wellcome Trust Grant review
2018	Israel Science Foundation review
2018	NIH R13 Conference symposia grant reviews (Aug 2018)
2018	NIH R01 Ad hoc member for a conflict study section (November 2018)
2019	HVTN Translational ESI Conference Travel Awards Reviewer (Feb 2019)
2019	NIH R01/R21 PAR Characterization of Mycobacterial Induced Immunity in HIV-infected and Uninfected Individuals R21 and Mechanisms of Mycobacterial-Induced Immunity in HIV-infected and Uninfected Individuals to Inform Innovative Tuberculosis Vaccine Design R01 (March 2019)
2019	NIH R01 US/Brazil Collaborative Biomedical Research Program (July 2019)
2020	Goldwater Scholar Review Panel to select UW nominees
2020	UW2020 grant (February 2020)
2020	NIH R01 Special Emphasis Panel for Cellular and Molecular Immunology B Study Section (CMIB) (March 2020)
2020	NIH UM1 Special Emphasis Panel for HIV/AIDS Clinical Trials Unity (May 2020)
2020	NIH SBIR Review panel (July 2020)

C. Graduate student committees:

Year	Student
2012-2013	Jackie Jackson, PhD committee, Shannon Kenney Lab (Cancer biology); graduated with a Masters degree
2013-2017	Brian Rekoske, PhD committee, Doug McNeel Lab (Microbiology)
2014-Left	Lauren Callahan, PhD committee, David Evans Lab (Microbiology); graduated with a Masters degree
2015-	Sarmi Basnet, PhD committee, Jim Gern Lab (CMP)
2017-	Rebecca Hutcheson, PhD committee, Bill Sugden Lab (CMP)
2017-	Quincy Rosemarie, PhD committee, Bill Sugden Lab (Cancer Biology)
2018-	Katie Zarbock, PhD committee, Federico Rey lab (CMP)
2018-	Kat Braun, PhD Committee, Thomas Friedrich lab (CMB)
2018-	Lea Matschke, PhD Committee, Matt Reynolds lab (CBMS)
2019-	Joe Lalli, PhD Committee, Thomas Friedrich lab (CMB)
2020-	Sydney Lesko, PhD Committee, Nate Sherer lab (CMB)
2020-	Szu-Tsen Yeh, PhD Committee, Robert Redfield lab (CMP) -- although Dr. Redfield is now leaving, so future is uncertain

D. Outreach:

Year	Event
2012	Present at a UW Microbiology club meeting
2012	Participate in the BOPS graduate school fair (CMB and CMP)
2012	Judge at the SciMedGRS poster session (November)
2012-2013	MMSD Science Symposium Mentor
2013	Present at Campus Women's Center meeting
2014	Panelist for the Delta Roundtable: Preparing for Your First Year as a Faculty Member: Teaching Responsibilities
2014	Panelist at a "Sex Out Loud" event for World AIDS Day
2018	Chair for one session of the Immunology Theme Data Series at the U of Melbourne
2018	Session chair at the 4th Annual Medicine, Dentistry, and Health Sciences Early Career Researcher Network Symposium at the U of Melbourne
2018	'Women in STEM' lunch at Trinity College, University of Melbourne
2019	Dine with a Scholar at Queen's College at the University of Melbourne: 'Challenges for women pursuing medical research'
2020	Coronavirus online Q and A sessions with David O'Connor -- EAGLE school parents (Madison), Trinity College (Australia), Queen's College (Australia), Trinity College alumni (Australia)
2020	"Science on Tap: Coronavirus, Emerging Diseases, and Band Practice" -- public Q and A event with David O'Connor; hosted at The Bur Oak and sponsored by UW-Madison
2020	Coronavirus Q and A sessions with 6th and 7th grade students at EAGLE school (Madison)

E. University Service:

Year	Campus committee
2012-current	Head of the Pathogen Sequencing Service at the Wisconsin National Primate Research Center. Perform fee-for-service viral sequencing for clients at UW or outside investigators
2013-2016	Microbiology Doctoral Training Program Steering Committee
2014	CMB Course Review Committee
2016	WID Director Search Committee
2017-2018	Member of the University Cluster Hire Committee
2017-2018 2019-current	Member of Campus Planning Committee at UW-Madison
2020	MATRIX mentor at SMPH

F. Department service:

Year	Campus committee
2012-current	CMP Graduate admission and recruitment committee (except 2018-2019)
2012-2013	Contributed to the update of the CMP website
2015-current	CMP Program Steering Committee
2017-2018	Member of the Pathology Immunology Research Faculty Hiring Committee
2019-2020	Member of the Anatomic Pathology Faculty Hiring Committee

G. Consulting:

Year	Entity
2017-	Colorado State University, Dr. Ramesh Akkina, Consultant on an R01 project
2019-	Intuitive Biosciences, Madison, WI

V. Manuscript reviews:

Year	Journal
2010 (1)	PLoS ONE (1)
2011 (2)	Immunogenetics (1), Journal of Acquired Immune Deficiency Syndromes (1)
2012 (4)	International Journal of Molecular Sciences (1), Gene (1), Journal of Acquired Immune Deficiency Syndromes (1), Journal of Virology (1)
2013 (8)	Immunogenetics (1), Journal of Virology (2), AIDS Research and Human Retroviruses (1), Journal of Acquired Immune Deficiency Syndromes (1), PLoS ONE (2), Infection Genetics and Evolution (1)
2014 (6)	Journal of Virology (1), Mediators of Inflammation (1), AIDS Research & Human Retroviruses (1), PLoS ONE (1), Retrovirology (2)
2015 (1)	Journal of Virology (1)
2016 (2)	PLoS ONE (1), Disease Models & Mechanisms (1)
2017 (2)	Journal of Virology (1), Human Vaccines & Therapeutics (1)
2018 (3)	Journal of Virology (1), Scientific Reports (1), PLoS Pathogens (1)
2019 (7)	Journal of Immunology (1), Journal of the International AIDS Society (1), Nature Communications (1), Science (1), Journal of Virology (1), JoVE (1), PLoS Pathogens (1)
2020 (6)	mSphere (1), PLoS Pathogens (2), Science (1), Scientific Reports (1), JCI (1)

VI. Laboratory Support:

A. Ongoing:

2R01 AI108415-06 12/1/18 – 11/30/23 \$2,482,214

Funding Agency: NIH

Title: Characterizing the therapeutic efficacy of CD8 T cell responses induced by the IL-15 superagonist ALT-803

Description: We will determine how an immunotherapeutic agent that is currently being used in preclinical cancer trials can offer control of virus replication in a monkey model of simian immunodeficiency virus infection.

Role: PI

1R01 AI142662-01 12/1/18 – 11/30/23 \$4,199,372 (\$991,618 in direct costs to UW)

Funding Agency: NIH

Title: Effects of HIV/SIV on unconventional T cells in immunity to M. tuberculosis in pre-adolescents

Description: The major goal of this project unconventional T cell populations are rendered less functional by HIV/SIV infection in children, which ultimately may impact host immunity to M. tuberculosis.

Role: MPI

WNPRC Genetics Services (NIH/NCRR P51 RR000167) Mailick (PI) 5/1/19 – 4/30/20 (annual)

These funds support an MHC genotyping and viral sequencing facility for researchers using nonhuman primates for biomedical research.

Role: Faculty to manage fee-for-service pathogen sequencing

2R24 OD017850-05 (PI: David O'Connor) 9/1/18 – 8/30/22 \$1,924,079

Funding Agency: NIH

Title: High throughput identification of common CD8+ T cell responses to SIV and M. tuberculosis in rhesus macaques

Description: The major goal of this project is to map epitopes in SIV and M. tuberculosis that are restricted by common MHC alleles and then determine if there are in vivo CD8 T cell responses specific for those peptides

Role: Co-I

WNPRC Pilot Grant Juno & S. O'Connor (co-PIs) 05/01/20-04/30/22 \$49,936

Characterizing CD1-restricted T cells in SIV infection

The goal of this project is to characterize the phenotype and frequency of CD1 restricted T cells in macaques infected with SIV.

Role: Co-PI

R01 AI 111815-01A1 (PI: Scanga, Charles) 4/1/15 – 3/31/2020 (NCE) \$539,637 (toUW)

Funding Agency: NIH

Title: The impact of preexisting SIV on host immunity to M. tuberculosis in macaques

Description: The major goal of this project is to determine whether a preexisting SIV infection disrupts otherwise effective cellular immune responses to M. tuberculosis in nonhuman primates.

Role: Subcontract, Co-Investigator

B. Completed:

R01 AI108415-01A1 12/5/13 – 11/30/18 \$2,482,214

Funding Agency: NIH

Title: Evaluating immunity elicited by CD8 T cells targeting invariant epitopes

Description: The major goal of this project is to determine if CD8 T cells targeting variable or invariant epitope sequences are more effective at controlling SIV replication.

Role: PI

R21 AI127127-01 07/01/16-06/30/18 \$274,947

Funding Agency: NIH

Title: SIV/HIV dysregulation of MAIT cell function impairs anti-M.tb immunity

Description: After infection with Mycobacterium tuberculosis (Mtb), individuals who are HIV+ are more likely to develop active Tuberculosis (TB) disease, than HIV-naïve individuals. We propose that a unique population of T cells, called MAIT cells, play a role in early containment of Mtb, and reduce the likelihood to develop TB disease. HIV-infection can dysregulate these MAIT cells, and we will use SIV+ ART-naïve macaques to determine if this dysregulation weakens the antibacterial functions of MAIT cells during the course of infection with Mtb.

Role: PI

R13 OD024607-01 (MPI: O'Connor, S) 04/01/17-03/31/18 \$75,000 year direct

Funding Agency: NIH

Title: NHP Symposium on AIDS - Madison, WI

Description: This annual symposium will provide an environment that will promote the exchange of ideas and perspectives, and foster new collaborations, especially between junior and senior members of the research community.

R24OD017850 (PI: O'Connor, David) 9/1/14-5/31/18

Funding Agency: NIH

Title: Identifying Common T cell Responses to Major Pathogens in Rhesus Macaques

The major goal of this project is to map epitopes in M. tuberculosis, Dengue, and SIV that are restricted by common MHC class I alleles in rhesus macaques.

Role: Co-I

WNPRC Pilot Award 1/1/13 – 4/30/15 \$49,820

Funding Agency: Wisconsin National Primate Research Center

Title: Lymph nodes are reservoirs for increased viral diversity

Description: The major goal of this project is to create a virus with a molecular barcode, to test the hypothesis that there is greater SIV diversity in the lymph nodes than in the blood.

Role: PI

TOchlgstk047 2/16/2015 – 2/28/2016 \$34,185

Funding agency: NIH

Title: Intrarectal challenge of macaques with an SIV barcode stock

Description: The major goal of this project is to determine if a highly unique SIV-barcode virus stock is feasible for use as part of an intrarectal challenge.

Role: PI

TOASnhp046 02/26/16-02/25/17 \$13,586

NIH, HHSN272201100023C to Quality Biological Inc.

Task order to provide reagent and assay support to assist in work developing the tools and expertise to generate PacBio sequence data from populations of replicating SIV.

Role: Task Order PI

Pilot Project at the U. of Pittsburgh 3/1/15-2/29/16 \$23,180

Funding Agency: U. of Pittsburgh

Title: Defining immune responses in a nonhuman primate model of SIV/M. tuberculosis co-infection

using tetrameric probes

Description: The major goal of this project is to characterize M.tuberculosis infection in Mauritian macaques, identify epitopes in M. tuberculosis, and develop the tools to track M. tuberculosis specific T cell responses.

Role: Co-I with Dr. Charles Scanga at the University of Pittsburgh

C. Other grant submissions pending:

R01AI158-111

9/1/2020-8/31/2025

\$2,499,150

Funding Agency: NIH

Title: COVID-19 severity in individuals with pre-existing HIV/SIV infection

Description: The major goal of this project is to determine whether the severity of COVID-19 is worse in SIV+ macaques or HIV+ humans, in Brazil.

Role: MPI with David O'Connor

