

CURRICULUM VITAE

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EDUCATION

- 2004-2006 Postdoctoral Scholar, Pennsylvania State University College of Medicine
Hershey, Pennsylvania, Department of Microbiology and Immunology
- 1999-2004 Pennsylvania State University College of Medicine, Hershey, Pennsylvania
Ph.D. in Integrative Bioscience Program in Immunobiology
- 1995-1999 Lebanon Valley College, Annville, Pennsylvania
Bachelor of Science, Biochemistry (summa cum laude)

TEACHING EXPERIENCE

- 2013- Associate Professor of Biology, Elizabethtown College, Elizabethtown
Pennsylvania, 17022
- 2007-2013 Assistant Professor of Biology, Elizabethtown College, Elizabethtown,
Pennsylvania, 17022
- Introduction to Biological Science I Lecture and Laboratory (BIO111/L)
 - Fall 2007-2010, 2012-2014
 - Immunology Lecture and Laboratory (BIO322/L)
 - Spring 2008-2014
 - Molecular Biology Lecture and Laboratory (BIO310/L)
 - Fall 2008-2010, 2012
 - NPS Biological Concepts Lecture and Laboratory (BIO101/L)
 - Spring 2009
 - Nutrition Lecture (BIO371/372, BIO220)
 - Spring 2008, 2010 (also Directed Study)-2014
 - General Physiology Laboratory (BIO324L)
 - Spring 2010
 - Introduction to Biological Science II Laboratory (BIO112/L)
 - Spring 2010-2011, 2013-2014
 - Independent Research in Biology (BIO 491/492)
 - Fall 2007-2014 and Spring 2008-2014
 - Experimental Design in Cell Biology (BIO311)
 - Fall 2013-2014
 - Biology Seminar (BIO412)
 - Spring 2014

- 2006-2007 Visiting Assistant Professor of Biology, Elizabethtown College, Elizabethtown, Pennsylvania, 17022
- Introduction to Biological Science I Lecture and Laboratory (BIO 111/L)
 - Biological Instrumentation and Research Methodology I; Cellular Emphasis Lecture and Laboratory (BIO 311)
 - Cell Biology Lecture and Laboratory (BIO 212/L)
 - Biological Instrumentation and Research Methodology II; Molecular Emphasis (BIO 312)
- 2004-2006 Adjunct Instructor of Biology, Elizabethtown College, Elizabethtown, Pennsylvania, 17022
- Introduction to Biological Sciences II Laboratory (BIO 112L)
 - Introduction to Biological Sciences I Laboratory (BIO 111L)
 - Biological Instrumentation and Research Methodology I: Cellular Emphasis (BIO 311)
- 2001-2002 Graduate teaching assistant, PennState University College of Medicine, Hershey, Pennsylvania, 17033
- Medical Microbiology Laboratory (MICRO 552)

RESEARCH EXPERIENCE

- 2013 Department of Biology, Elizabethtown College, Elizabethtown, Pennsylvania, 17022
- Assessment of the effects of corticosterone on *in vivo* splenic dendritic cells populations
- 2010-2012 Department of Biology, Elizabethtown College, Elizabethtown, Pennsylvania, 17022
- Assessment of the effects of corticosterone on *in vivo* response of mice to immunization with Simian Virus 40 tumor antigen protein
 - Resulted in publication
- 2006- Department of Biology, Elizabethtown College, Elizabethtown, Pennsylvania, 17022
- Establishment and maintenance of murine animal colony for *in vivo* research
 - Development of research projects for and advising of biology and biotechnology majors in research and honors (BIO 491/492)
 - Assessment of the cellular and molecular effects of stress hormones on *in vitro* and *in vivo* growth of tumor cells
 - Assessment of the cellular effects of stress hormones on tumor-specific immune responses *in vitro*, focused on CD8⁺ T cells
 - Resulted in undergraduate co-author publication
- 2004-2006 Post-doctoral research, Department of Microbiology and Immunology, PennState University, College of Medicine, Hershey, Pennsylvania, 17033
- Assessment of choroid plexus tumor progression *in vivo* following adoptive immunotherapy of CD8⁺ T cells

- Resulted in publication
 - Development of molecular biology project for an undergraduate student to assess immunodominance within the Simian Virus 40 tumor antigen protein
- 2003 Developed research project, mentored and advised medical student for Medical Student Research (MSR) Program, PennState University College of Medicine, Hershey, Pennsylvania, 17033
 - Assessed effects of postpartum maternal stress on transfer of maternal antibodies through breastmilk
 - Resulted in co-author publication
- 1999-2004 Thesis research, Department of Microbiology and Immunology, PennState University, College of Medicine.
 - Interdisciplinary research assessing the effects of psychological stress on the *in vivo* immune response to herpes simplex virus in murine mothers and their offspring
 - Resulted in multiple publications

PUBLICATIONS (*denotes undergraduate co-author(s))

1. **Yorty, J.L.** and Bonneau, R.H. 2013. Assessing neuroendocrine-mediated modulation of immunity to infection in animals: caveats and methodological issues. In Handbook of Psychoneuroimmunology. Wiley-Blackwell publisher.
2. *Bahr, E. and **Yorty, J.L.** 2013. Rapid Decrease in CD8⁺ T cells Following Treatment of Mice with Exogenous Corticosterone. *BIOS* 84(3):148-157.
3. **Yorty, J.L.** 2013. Short-term corticosterone treatment decreases the early CD8⁺ T cell response to Simian Virus 40 tumor antigen but has no impact on the late CD8⁺ T cell response. *Brain, Behavior, and Immunity* 28:139-148.
4. *Martinez, B.M., *Sodomin, E.M., *Sether, L.M and **Yorty, J.L.** 2009. Effects of stress hormones on the function of tumor antigen-specific CD8⁺ T cells. *BIOS* 80(3):114-122.
5. **Yorty, J. L.**, Tevethia, S.S., and Schell, T.D. 2008. Rapid accumulation of adoptively-transferred CD8⁺ T cells at the tumor site is associated with long-term control of SV40 T antigen-induced tumors. *Cancer Immunology, Immunotherapy* 57:883-895.
6. Zahwa H., **Yorty, J.L.** and Bonneau, R.H. 2008. Elevated maternal corticosterone during lactation hinders the neonatal adaptive immune response to herpes simplex virus (HSV) infection. *Brain Behavior and Immunity* 22:339-353.
7. **Yorty, J. L.** and Bonneau, R. H. 2004. The impact of maternal stress on the transmammary transfer and protective capacity of herpes simplex virus-specific immunity. *American Journal of Physiology* 287:R1316-1324.
8. **Yorty, J. L.**, *Schultz, S. and Bonneau, R. H. 2004. Postpartum maternal corticosterone decreases maternal antibody levels and increases the susceptibility of newborn mice to herpes simplex virus-associated mortality. *Journal of Neuroimmunology* 150:48-58.
9. **Yorty, J. L.** and Bonneau, R. H. 2004. Prenatal transfer of limiting amounts of herpes simplex virus (HSV)-specific antibody protects newborn mice against HSV infection during acute maternal stress. *Brain, Behavior, and Immunity* 18:15-23.

10. **Yorty, J. L.** and Bonneau, R. H. 2003. Transplacental transfer and subsequent neonate utilization of herpes simplex virus-specific immunity is resilient to acute maternal stress. *Journal of Virology* 77:6613-6619.
11. Zhou, Z., Fisher, D., Spidel, J., **Greenfield, J.**, Patson, B., Fazal, A., Wigal, C., Moe, O., and Madura, J. 2003. Kinetic and docking studies of the interaction of quinones with the quinone reductase active site. *Biochemistry* 42:1985-1994.

PRESENTATIONS at MEETINGS, SYMPOSIA and SEMINARS (*denotes undergraduate co-author(s))

1. *Klitsch, E. and **Yorty, J.L.** Effects of the Stress Hormone Corticosterone on the Production of Pro-Inflammatory Cytokines and Expression of IL-17R on U937 Cells. Pennsylvania Academy of Science (PAS) Annual Meeting, Selinsgrove, Pennsylvania, March 22, 2014. **Awarded third place in oral presentation category.**
2. *Mrozek, C. and **Yorty, J.L.** Recovery of Splenic Dendritic Cell Populations of C57BL/6 Mice after Treatment with Corticosterone. Pennsylvania Academy of Science (PAS) Annual Meeting, Selinsgrove, Pennsylvania, March 22, 2014.
3. **Yorty, J.L.** What's REALLY In Your Food? Take Care Tuesday discussion. Elizabethtown College, March 18, 2014. **(Invited seminar)**
4. *Hartman, M. and **Yorty, J.L.** The effects of corticosterone on the growth and immunological profile of B16 melanoma tumors in mice. Beta Beta Beta Convention, Lincoln University, March 23, 2013. **Awarded first place in oral presentation category.**
5. **Yorty, J.L.** Analysis of the effects of short-term corticosterone treatment on the CD8⁺ T cell response to a well-defined oncoprotein. Psychoneuroimmunology Research Society (PNIRS) Annual Meeting, San Diego, California, June 6-9, 2012.
6. *Bahr, E. and **Yorty, J.L.** Decrease in CD8⁺ T cells Following Treatment of Mice with Exogenous Corticosterone. Pennsylvania Academy of Science (PAS) Annual Meeting, Allentown, Pennsylvania, March 30-31, 2012.
7. *Hopkins, A. and **Yorty, J.L.** The effects of corticosterone on a SV40 T-antigen transformed cell line. , SCAD, April 19, 2011.
8. *Brumbach, E. and **Yorty, J.L.** Investigating the effects of estrogen on peritoneal macrophages. Beta Beta Beta Convention, Lincoln University, March 26, 2011. **Awarded second place in poster presentation category.**
9. *Sodomini, E. M., and **Yorty, J.L.** Effects of the stress hormone corticosterone on growth and VEGF levels in tumor cells. Beta Beta Beta Convention, Lincoln University, March 26, 2011. **Awarded second place in oral presentation category.**
10. **Yorty, J.L.** Timing of corticosterone treatment and its effects on the CD8⁺ T cell response to cell-associated antigen. 97th Annual American Association for Immunologists (AAI) meeting. Baltimore, Maryland, May 8-10, 2010
11. **Yorty, J.L.** Utilizing a case-based learning approach to illustrate mechanisms of immunity and immunological problems in the medical field. Pennsylvania Academy of Science (PAS) Annual Meeting, Educational Symposium, Camp Hill, Pennsylvania, April 9-11, 2010. Also presented at Elizabethtown College conference Faculty Innovations in Teaching, Research and Service, May 18, 2010.

12. *Hurst, S. and **Yorty, J.L.** Increasing the immunogenicity of a tumor rejection antigen. PAS Annual Meeting, Camp Hill, Pennsylvania, April 9-11, 2010. Also presented at Scholarship and Creative Arts Day (SCAD), April 27, 2010.
13. *Sether, L., and **Yorty, J.L.** Corticosterone decreases tumor growth and T cell numbers in Balb/c mice. PAS Annual Meeting, Camp Hill, Pennsylvania, March 27-28, 2009. Also presented at SCAD, April 21, 2009.
14. *O'Connor, K., and **Yorty, J.L.** Corticosterone suppresses tumor cell growth *in vitro*. , SCAD, April 21, 2009.
15. *Sether, L., and **Yorty, J.L.** The effects of corticosterone on the T cell response to MKSA cells in mice. , SCAD, April 22, 2008.
16. *Myers, J.E. and **Yorty, J.L.** Assessment of the effects of corticosterone on the growth and cell cycle of the Tag-induced tumor line, MKSA. PAS Annual Meeting, Grantville, Pennsylvania, April 5-6, 2008.
17. *Martinez, B.P., *Sether, L., and **Yorty, J.L.** Effects of corticosterone on CD8⁺ T lymphocyte cytotoxic mediators perforin and granzyme B. PAS Annual Meeting, Grantville, Pennsylvania, April 5-6, 2008.
18. **Yorty, J.L.** The usage of flow cytometry in biomedical research. Elizabethtown College, Department of Chemistry, Chemistry Seminar, April 13, 2007. (**Invited seminar**)
19. *Martinez, B. P., *Jones, K., and **Yorty, J.L.** Effects of corticosterone on the CD8⁺ T cell immune response to Tag-induced carcinoma. PAS Annual Meeting, Pittsburgh, Pennsylvania, March 29-31, 2007.
20. **Yorty, J. L.**, Schell, T.D., and Tevethia, S.S. Efficiency of SV40 Tag-immune donor cells in control of spontaneously arising choroid plexus tumor progression. American Association of Immunologists Annual Meeting, Boston, Massachusetts, May 12-16, 2006.
21. **Yorty, J. L.**, Schell, T. D., and Tevethia, S. S. Therapeutic efficacy of adoptively-transferred activated T antigen-specific cells in the control of choroid plexus tumor progression. Regional Cancer Center Consortium for the Biological Therapy of Cancer 8th Annual Meeting, Hershey, Pennsylvania, February 24-26, 2005.
22. **Yorty, J.L.** Maternal stress, the passive transfer of HSV-specific immunity and the developing immune system. Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, July 17, 2003. (**Invited seminar**)
23. **Yorty, J. L.** and Bonneau, R. H. Maternal to fetal/neonatal transfer of herpes simplex virus (HSV)-specific immunity is resilient to acute maternal stress. Psychoneuroimmunology Research Society 10th Annual Meeting, Amelia Island, Florida, June 4-8, 2003.
24. **Yorty, J. L.** and Bonneau, R. H. The passive transfer of HSV-specific immunity from mother to fetus/neonate is resilient to acute maternal stress. American Association of Immunologists 90th Annual Meeting, Denver, Colorado, May 6-10, 2003.
25. **Greenfield, J. L.** and Bonneau, R. H. Utilization of a mouse model to assess the effects of maternal stress on the development of neonatal immunity and susceptibility to herpes simplex virus (HSV) infection. Psychoneuroimmunology Research Society 9th Annual Meeting, Madison, Wisconsin, May 8-11, 2002.
26. **Greenfield, J. L.** and Bonneau, R. H. The demonstration of a stress hyporesponsive period in neonatal mice provides a model for studying the impact of maternal stress on neonatal

susceptibility to herpes simplex virus (HSV) infection. Psychoneuroimmunology Research Society 8th Annual Meeting, Utrecht, The Netherlands, May 16 - 20, 2001.

ATTENDANCE at OTHER MEETINGS and SYMPOSIA (no presentations)

1. Stephen Ministries Leader's Training Course, Pittsburgh, PA, July 29 – August 4, 2012
2. Women in Leadership in STEM Fields, Dixon University Center, Harrisburg, PA, May 17, 2012
3. Council on Undergraduate Research Dialogues, Washington, D.C., February 24-26, 2011.
4. Cancer Symposium. Pennsylvania State University, Hershey Pennsylvania, October 2008.
5. 15th Annual ASM Conference for Undergraduate Educators. Endicott College, Beverly, Massachusetts, May 30-June 1, 2008.
6. PRIM&R Annual Conference; Ethics and Compliance in Animal Care and Use Programs. Atlanta Georgia, March 27-28, 2008.
7. PRIM&R (Public Responsibility in Medicine and Research) Institutional Animal Care and Use Committee Conference (IACUC 101). Atlanta, Georgia, March 26, 2008.

GRANTS and AWARDS

- 2013 Elizabethtown College Faculty Grant, *Quantitation of the Decrease and Recovery of Dendritic Cell Subsets In Mice Exposed to Exogenous Corticosterone*
- Outcome: Funded, \$3,000
- 2012 Named as a consultant for Dr. Robert Bonneau at The PennState College of Medicine in Hershey on National Institutes of Health R01 grant application, *Genetic-Based Regulation of Prenatal Maternal Stress: Impact on Neonatal Immunity*
- Submission date June 6, 2012
 - Outcome: Not funded
- 2012 National Science Foundation – Major Research Instrumentation grant, *Acquisition of a Becton Dickinson FACSVerser flow cytometer to enhance faculty research and undergraduate training at Elizabethtown College*
- Submission date January 23, 2012; requested \$145,660 for equipment
 - Outcome: Reviewed but not funded
- 2011 Member of external advisory group for PA STEM University Partnership (PA STEM-UP) for the Advancement of Academic Women
- 2011 Junior Leave, Fall Semester of 2011
- 2011 Merit Award for Teaching and Advising
- 2011 National Institutes of Health, Academic Research Enhancement Award (AREA) R15 (PA-10-070), *Indirect Effects of Glucocorticoids on T Cell Responses to Cross-Primed Antigen*
- Submission date June 16, 2011; requested \$264,309.00
 - Outcome: Reviewed and Scored but not funded
- 2011 Elizabethtown College Faculty Grant, *The Effects of Corticosterone on the in vivo CD8⁺ T cell Response to a Tumor Antigen*
- Outcome: Funded, \$2,900
- 2007 Elizabethtown College Faculty Grant, *Establishment of a Mouse Model to Assess the Effects of Stress Hormones on the Immune Response to Tumors*
- Outcome: Funded, \$3,200

Student Grants

- 2014 PAS, College Student Research Funds, *A study on the effects of corticosterone and Vitamin D on the splenic dendritic cells of C57BL/6 mice.*
▪ Outcome: Currently under review
- 2013 PAS, College Student Research Funds, *Effects of the stress hormone corticosterone on the production of pro-inflammatory cytokines and expression of IL-17R on U937 cells exposed to IL-17.*
▪ Outcome: Funded, \$300
- 2012 Tri-Beta Research Grant, *Effects of corticosterone on the growth and immunological profile of B16 melanoma tumors in C57BL/6 mice*
▪ Outcome: Funded, \$350
- 2010 Tri-Beta and PAS College Student Research Funds, *Effects of the stress hormone, corticosterone, on VEGF levels in tumor cells*
▪ Outcome: Funded, ~\$600 total total
- 2009 PAS, College Student Research Funds, *Increasing the immunogenicity of a tumor rejection antigen*
▪ Outcome: Funded, \$400
- 2007 PAS, College Student Research Funds, *Effects of corticosterone on CD8⁺ T lymphocyte mediated cytotoxicity of antigen presenting cells through cytotoxic mediators perforin and granzyme B*
▪ Outcome: Funded, \$485

PROFESSIONAL SOCIETIES

- 2011-present Psychoneuroimmunology Research Society (PNIRS)
2011-2013 American Assoc. for the Advancement of Science (AAAS)
2010-2012 American Association of Immunologist (AAI)
2007-present Council on Undergraduate Research (CUR)
2007-present Beta, Beta, Beta Biological Honor Society
2006-present Pennsylvania Academy of Sciences (PAS)
2002-2007 American Association of Immunologists (AAI)

MANUSCRIPT/GRANT REVIEWER

- 2012 Brain, Behavior and Immunity
2011-present BIOS
2010 Journal of Biomedicine and Biotechnology
2009 Progress in Neuro-psychopharmacology and Biological Psychiatry
2008 U.S. Civilian Research and Development Foundation
2007-present Pennsylvania Academy of Science Grant Reviewer
2007-present Antimicrobial Agents and Chemotherapy

SERVICE

Biology Department

- 2014- Director Biotechnology major
2007-present Participation in Open House events, Admitted Student Days and Scholarship Receptions

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- 2007-present Advising (majors in Biology, concentration in Allied Health, Pre-medicine and Pre-veterinarian, majors in Biotechnology)
- 2007-2008 Development of weekly Journal Club for students interested in engaging with science outside of the traditional classroom

- 2014- Academic Council
- 2014 Service Learning Trip to Ethiopia, Co-Faculty leader
- 2013-present Scholarship and Creative Arts Day (SCAD) Committee
- 2013-present Called-To-Lead Program, Student Mentor
- 2013 Service Learning Trip to Vietnam, Co-Faculty leader
- 2012 Merit Review Committee
- 2012-2015 Academic Review Committee
- 2012-2013 Center for Global Understanding and Peacemaking advisory board
 - Ware Lecture Planning Sub-Committee
- 2011 Service Learning Trip to Vietnam, Co-Faculty leader
- 2010-2013 Professional Development Committee
 - 2012-2013, Chair
- 2010-2011 International Programs Advisory Council
- 2009 Service learning trip to Vietnam, co-leader with Dr. McFarland
- 2008-2011 Core Committee
 - 2009-2010, Secretary
- 2008-present Institutional Animal Care and Use Committee
 - Establishment of committee and committee chair
 - Oversee and manage animal colony and animal protocol process
- Spring 2008 Professional Development Committee
 - Served as secretary

Community

- 2014 Member STEM-UP PA Mentoring Program Executive Committee
- 2013-present STEM-UP PA Mentor
- 2012-present United Churches of Elizabethtown Area delegate
 - 2012-2014, Secretary
- 2012-present Brittany's Hope Foundation, Humanitarian Committee Member
- 2010-2012 Christ Evangelical Lutheran Church Council
 - 2012, Secretary
- 2006-2013 Christ Evangelical Lutheran Church, Social Ministry Committee
 - Chair
- 2008-2010 Pennsylvania Junior Academy of Science, judge