

# William J. Turbitt, Jr.

## Curriculum Vitae

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### Work Address:

WTI 301  
 1824 6<sup>th</sup> Ave South  
 The University of Alabama at Birmingham  
 Birmingham, AL 35233  
 Email: wturbitt@uab.edu

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### PRESENT POSITION

2017-Present T32 Postdoctoral Fellow (T32DK062710), The Nutrition Obesity Research Center (NORC), The Department of Nutrition Science, The University of Alabama at Birmingham, Birmingham, AL

Primary mentor: Dr. Lyse Norian; Secondary mentor: Dr. Courtney Peterson

### ACADEMIC BACKGROUND

2012-2017 Ph.D., Integrative and Biomedical Physiology, The Pennsylvania State University, University Park, PA (Mentor: Dr. Connie J. Rogers)

2006-2010 B.S., Biobehavioral Health, minors in Neuroscience and Biology, The Pennsylvania State University, University Park, PA

### PUBLICATIONS

1. **Turbitt, W.J.**, Xu, Y., Hamilton, A.A., Mastro, A.M., Rogers, C.J. (2018). Moderate physical activity in weight stable mice reduces 4T1.2 tumor burden to the same extent as PD-1 checkpoint blockade in sedentary, weight gain controls. (in preparation).
2. **Turbitt, W.J.**, Xu, Y., Sosnoski, D.M., Collins, S., Mastro, A.M., Rogers, C.J. (2018). Weight maintenance in combination with a whole tumor cell vaccine reduces mammary tumor cell growth and enhances anti-tumor immunity. (in preparation).
3. Collins, S., **Turbitt, W.J. (co-first author)**, Rogers, C.J. (2018). Obesity accelerates pancreatic tumor growth and increases the accumulation of Gr-1<sup>+</sup>/CD11b<sup>+</sup> myeloid-derived suppressor cells. (in preparation).
4. **Turbitt, W.J. (co-first author)**, Xu, Y., Sosnoski, D.M., Collins, S., Meng, H., Mastro, A.M., Rogers, C.J. (2018). Physical activity in weight stable mice prevents mammary tumor growth and metastases by altering the tumor microenvironment and reducing protumorigenic factors. (in preparation).
5. Boi, W.K., Orlandella, R. M., Gibson, J.T., Makkouk, A., Nandagopal, L., Gross, B.P., **Turbitt, W.J.**, Starenki, D., Joshi, V.B., Meyers, R.M., Sorge, R.E., Salem, A.K., Weiner, G.J., Li, P., Yang, E., Marquesz-Lago, T.T., Norian, L.A. (2018). Host obesity impairs the efficacy of novel combinatorial checkpoint blockade therapeutics. (submitted).
6. Kraemer, W.J., Kennett, M.J., Mastro, A.M., McCarter, R.J., Rogers, C.J., DuPont, W.H., Flanagan, S.D., **Turbitt, W.J.**, Fragala, M.S., Post, W.M., Hymer, W.C. (2017). Bioactive growth hormone in older men and women: It's relationship to immune markers and healthspan. *Growth Hormone & IGF Research*; 34:45-54.
7. **Turbitt, W.J.**, Black, A.J., Collins, S., Meng, H., Xu, H., Washington, S., Aliaga, C., El-Bayoumy, K., Manni, A., Rogers, C.J. (2015). Fish oil differentially alters T cell function and tumor growth and induces the emergence of Gr1<sup>+</sup>/CD11b<sup>+</sup> cells in two models of mammary carcinogenesis. *Nutrition and Cancer*; 67(6), 965-975.
8. Sinha, R., Cooper, T.K., Rogers, C.J., Sinha, I., **Turbitt, W.J.**, Calcagnotto, A., Perrone, C.E., J.P. Richie, J.P. (2014). Dietary methionine restriction inhibits prostatic intraepithelial neoplasia in TRAMP mice. *Prostate*; 74(16):1663-1673.

**HONORS AND AWARDS**

- 2018 First Place Award for Exceptional Performance in the 15<sup>th</sup> Annual Postdoctoral Research Day, “The Comprehensive Diabetes Center and Nutrition Obesity Research Center Session”, The University of Alabama at Birmingham, Birmingham, AL
- 2017 The Alumni Association Dissertation Award 2016-17, The Pennsylvania State University, University Park, PA
- 2017 The Graduate School Teaching Certificate, The Pennsylvania State University, University Park, PA
- 2016 The Huck Institutes Graduate Travel Award, The Pennsylvania State University, University Park, PA
- 2016 The American Institute for Cancer Research 2016 Conference Scholarship Award, The American Institute for Cancer Research, Washington, DC
- 2016 The 2016 Kinesiology 588 Grant Proposal Travel Award, The Pennsylvania State University, University Park, PA
- 2015 The American Association of Immunologists Young Investigator Award at the Translational Research Cancer Centers Consortium Annual Meeting 2015
- 2015 Center for Molecular Immunology and Infectious Disease (CMIID) Professional Development Award, The Pennsylvania State University, University Park, PA
- 8/2014-8/2016 Trainee in the NIH T32 Training Program in Animal Models of Inflammation (T32AI074551), The Pennsylvania State University, University Park, PA
- 2014 Huck Dissertation Research Award, The Huck Institute of the Life Sciences, The Pennsylvania State University, University Park, PA
- 2012 Fund for Excellence in Graduate Recruitment (FEGR), Alumni Association Graduate Fellowship, The Pennsylvania State University, University Park, PA

**PREVIOUS PROFESSIONAL POSITIONS**

- Spring 2014 Teaching Assistant, Laboratory in Mammalian Physiology  
Department of Biology, The Pennsylvania State University, University Park, PA  
Supervisor: Rudolf Schilder, Ph.D.
- Pre-lab set-up, laboratory instruction, grading of laboratory reports
- Fall 2013 Teaching Assistant, Physiology Laboratory  
Department of Biology, The Pennsylvania State University, University Park, PA  
Supervisor: John Waters, Ph.D.
- Pre-lab set-up, laboratory instruction, grading of laboratory reports
- 2010-2012 Research Technologist II  
Supervisor: Connie J. Rogers, Ph.D., M.P.H., Assistant Professor of Nutritional Sciences, The Pennsylvania State University, University Park, PA
- Worked closely with PI to order, organize, and set up new lab space
  - Gained exposure to laboratory methods: cell culture, small animal handling; and various experimental manipulations including flow cytometry, RNA isolation; and numerous cellular immunological assays
- 2007-2010 Undergraduate Research Assistant  
Mentor: Sheila G. West, Ph.D., Professor of Biobehavioral Health, The Pennsylvania State University, University Park, PA
- Undergraduate research assistant for a comprehensive omega-3 clinical trial
  - Gained exposure to subject interactions, documentation, sterile technique, and peripheral blood mononuclear cell isolation

## ORAL PRESENTATIONS

1. **Turbitt, W.J.**, Boi, S.K., Orlandella, R.M., Gibson, J., Norian, L.A. Obesity alters the expression of suppressive factors in intra-tumoral dendritic cells following combinatorial immunotherapy. The Comprehensive Diabetes Center and Nutrition Obesity Research Center Symposium Session at the 15<sup>th</sup> Annual Postdoctoral Research Day, Birmingham, AL, February 2018.
2. **Turbitt, W.J.**, Sosnoski, D.A., Mastro, A.M., Rogers, C.J. Activity-induced weight maintenance in combination with a whole tumor cell vaccine delays mammary tumor growth and metastases, and reduces plasma IGF-1. Mini-symposium presentation at the Translational Research Cancer Centers Consortium Annual Meeting, Seven Springs, PA, February 2016.
3. **Turbitt, W.J.**, Sosnoski, D.A., Mastro, A.M., Rogers, C.J. Exercise, alone and in combination with a whole tumor cell vaccine reduces mammary tumor cell growth and enhances anti-tumor immunity. Mini-symposium presentation at the American Association for Cancer Research Annual Meeting, Philadelphia, PA, April 2015.
4. **Turbitt, W.J.**, Sosnoski, D.A., Mastro, A.M., Rogers, C.J. Exercise, alone and in combination with a whole tumor cell vaccine, reduces mammary tumor cell growth, metastases, and MDSC accumulation. Mini-symposium presentation at the Translational Research Cancer Centers Consortium Annual Meeting, Seven Springs, PA, February 2015.

## ABSTRACTS

1. **Turbitt, W.J.**, Boi, S.K., Orlandella, R.M., Gibson, J., Norian, L.A. Obesity alters the expression of suppressive factors in intra-tumoral dendritic cells following combinatorial immunotherapy. Poster presented at Experimental Biology Annual Meeting, San Diego, CA, April 2018.
2. Xu, Y. **Turbitt, W.J.**, Mastro, AM., Rogers, C.J. Diet and exercise-induced weight maintenance, alone and in combination with a whole tumor cell vaccine, delays mammary tumor growth and reduces tumor-infiltrating MDSCs expressing PD-L1 and IDO. Poster presented at the American Association for Cancer Research Annual Meeting, Chicago, IL, April 2018.
3. Xu, Y. **Turbitt, W.J.**, Mastro, AM., Rogers, C.J. The combination of energy restriction and exercise plus the administration of a whole tumor cell vaccine delays 4T1.2<sup>luc</sup> tumor growth and reduces tumor-infiltrating MDSCs expressing PD-L1 and IDO. Poster presented at the Translational Research Cancer Centers Consortium Annual Meeting, Seven Springs, PA, February 2018.
4. **Turbitt, W.J.**, Xu, Y., Mastro, A.M., Rogers, C.J. Diet and exercise-induced weight maintenance may be preventing mammary tumor growth and metastatic burden by enhancing antitumor immunity and/or reducing protumorigenic factors. Poster presented at the American Association for Cancer Research Annual Meeting, Washington, D.C., April 2017.
5. Xu, Y. **Turbitt, W.J.**, Mastro, AM., Rogers, C.J. Diet and exercise-induced weight maintenance, alone and in combination with a whole tumor cell vaccine, delays mammary tumor growth and reduces MDSC accumulation. Poster presented at the American Association for Cancer Research Annual Meeting, Washington, D.C., April 2017.
6. **Turbitt, W.J.**, Xu, Y., Mastro, A.M., Rogers, C.J. Weight maintenance alters the tumor microenvironment and delays murine mammary tumor growth and metastases. Poster presented at the American Institute for Cancer Research Annual Meeting, North Bethesda, MD, November 2016.
7. **Turbitt, W.J.**, Xu, Y., Mastro, A.M., Rogers, C.J. The dual administration of immunotherapy is enhanced by activity-induced weight maintenance in the 4T1.2 mammary tumor model. Poster presented at the Society for Immunotherapy of Cancer Annual Meeting, National Harbor, MD, November 2016.
8. **Turbitt, W.J.**, Sosnoski, D.A., Mastro, A.M., Rogers, C.J. Activity-induced weight maintenance in combination with a whole tumor cell vaccine delays mammary tumor growth and metastases, and reduces plasma IGF-1. Poster presented at the Translational Research Cancer Centers Consortium Annual Meeting, Seven Springs, PA, February 2016.

**ABSTRACTS CONTINUED**

9. **Turbitt, W.J.**, Sosnoski, D.A., Mastro, A.M., Rogers, C.J. Exercise, alone and in combination with a whole tumor cell vaccine, reduces mammary tumor cell growth, metastases, and MDSC accumulation. Poster presented at the Translational Research Cancer Centers Consortium Annual Meeting, Seven Springs, PA, February 2015.
10. **Turbitt, W.J.**, Black, A. J., Collins, S., Mastro, A.M., Rogers, C.J. 4T1.2 tumor-bearing mice that exercise and remain in energy. Poster presented at the American Institute for Cancer Research Annual Meeting, Washington D.C., October 2014.
11. Collins, S., **Turbitt, W.J.**, Rogers, C.J. Obesity-induced pancreatic tumor growth is accompanied by the accumulation of myeloid derived suppressor cells and altered metabolic mediators. Poster presented at Experimental Biology Annual Meeting, San Diego, CA, April 2014.
12. **Turbitt, W.J.**, Black, A. J., Collins, S., Rogers, C.J. Granulocytic myeloid derived suppressor cells are preferentially expanded and have suppressive capacity in the murine 4T1 breast cancer model. Poster presented at the 2014 Pennsylvania State University Graduate Exhibition, The Pennsylvania State University, University Park, PA, April 7, 2014.
13. **Turbitt, W.J.**, Collins, S., Xu, H., Washington, S., Aliaga, C., El-Bayoumy, K., Manni, A., Rogers, C.J. Fish oil increases immune cell infiltration of tumors and reduces the incidence of mammary carcinogenesis in Her2neu mice. Poster presented at the 2013 Annual Physiology Retreat, The Pennsylvania State University, University Park, PA, September 27, 2013.
14. **Turbitt, W.J.**, Collins, S., Xu, H., Washington, S., Aliaga, C., El-Bayoumy, K., Manni, A., Rogers, C.J. Fish oil increases immune cell infiltration of tumors and reduces the incidence of mammary carcinogenesis in Her2neu mice. Poster presented at the American Association for Cancer Research Annual Meeting, Washington, D.C., April 2013.
15. **Turbitt, W.J.**, Collins, S., Xu, H., Washington, S., Aliaga, C., El-Bayoumy, K., Manni, A., Rogers, C.J. Fish oil increases immune cell infiltration of tumors and reduces the incidence of mammary carcinogenesis in Her2neu mice. Poster presented at the 2013 Pennsylvania State University Graduate Exhibition, The Pennsylvania State University, University Park, PA, March 24, 2013.
16. Collins, S., **Turbitt, W.J.**, Rogers, C.J. Obesity accelerates pancreatic tumor growth and increases the accumulation of myeloid derived suppressor cells. Poster presented at Experimental Biology Annual Meeting, Boston, MA, April 2013.
17. Collins, S., **Turbitt, W.J.**, Haworth, E.R., Rogers, C.J. The effect of adiponectin on the phenotype and function of Jaws II cells. Poster presented at Experimental Biology Annual Meeting, San Diego, CA, April 2012.
18. Meng, H., **Turbitt, W.J.**, Rogers, C.J. GLUT-1 Transporter expression is up-regulated on human CD4<sup>+</sup> and CD8<sup>+</sup> T lymphocytes following T cell activation. Poster presented at Experimental Biology Annual Meeting, San Diego, CA, April 2012.
19. Skulas-Ray, A.C., Kris-Etherton, P.M., Wagner, P.F., Harris, W.S., Groves, L.F., **Turbitt, W.J.**, Crispell, M.D., Poupin, N., West, S.G. Omega-3 fatty acid concentrates dose-dependently alter triglycerides and erythrocyte fatty acid composition with no effect on in endothelial function. Poster presented at Experimental Biology Annual Meeting, Anaheim, CA, April 2010.

**PROFESSIONAL MEMBERSHIPS AND SOCIETIES**

2016-present	Society for Immunotherapy of Cancer (SITC)
2016-present	The American Association of Immunologists (AAI)
2013-present	American Physiological Society (APS)
2013-present	American Association for Cancer Research (AACR), Associate Member

**PROFESSIONAL DEVELOPMENT MEMBERSHIPS**

2014-2017 Member of the Center for Molecular Immunology and Infectious Disease (CMIID) graduate and post-doctoral student society, The Pennsylvania State University

**SERVICE**

2017-present Contributor to the weekly Obesity and Energetics Offerings (OEO) through the Indiana University School of Public Health-Bloomington and the University of Alabama at Birmingham's Nutrition Obesity Research Center ([www.obesityandenergetics.org/](http://www.obesityandenergetics.org/))

2016 Judge for the 32<sup>nd</sup> Annual Graduate School Exhibition, The Pennsylvania State University, University Park, PA

**MENTORSHIP ACTIVITIES**

2013-2017 Mentor for incoming Physiology graduate students

2010-2017 Mentor for undergraduate research assistants in the Rogers's Lab (laboratory training, assigning and monitoring tasks, assisting with data management and analysis)

**SPECIALIZED TRAINING**

2018 Big Data Training for Translational Omics Research (9 day immersive training workshop), Purdue University, West Lafayette, IN

2017 Collaborative Institutional Training Initiative (CITI) Training Course

8/2014-8/2016 T32 Training Modules, The Pennsylvania State University, University Park, PA  
*"Fundamentals of Select Agent Research",*  
*"Neutrophil Extracellular Traps",*  
*"Transgenic Models of Inflammation",*  
*"Pathology of Inflammation",*  
*"The Ethics and Use of Animals in Biomedical Research",*  
*"Translational Approaches to Cancer Research",*  
*"Use of Gnotobiotics in Autoimmune Research",*  
*"Nuclear Receptors, Metabolism, and Inflammation",*  
*"Immune Checkpoints and Cancer Immunotherapy"*

2016 Metabolomics-Methods and Applications Course, The Pennsylvania State University, University Park, PA

2015 Individual Development Plan Training Session, hosted by Dr. Phil Clifford, The Pennsylvania State University, University Park, PA

2015 Co-organizer of a grant-writing and review workshop for the Center for Molecular Immunology and Infectious Disease graduate and post-doctoral student society, The Pennsylvania State University, University Park, PA

2015 The 29th Annual Charles River Short Course on Lab Animal Science, Newton, MA

2012 Grant Writing: Professional Development Workshops, The Pennsylvania State University Graduate School, University Park, PA

2012 Rodent Surgery Workshop, Animal Resource Program, The Pennsylvania State University, University Park, PA