



- National Institutes of Health Postdoctoral Fellowship in Diabetes and Endocrinology (2003-2006) (T32-DK07314-23)
- University of South Florida New Researcher Award (2012)

### **Professional Experience and Review Panels**

2010- Editorial Board Member, ISRN Endocrinology

2012- Editorial Board Member, BioMed Research International

2018-2021- Permanent Member of ADA Basic Science Review Panel

### **PUBLICATIONS (43 Total Publications)**

1. **Burkhardt, B.R.**, C. Cobberley, D. Kephart, J. Sleasman, and M. M. Goodenow. 1999. Postmortem isolation and analysis of human genomic DNA from HIV-infected tissues: A Molecular Diagnostics Application. *Promega Notes*. 71:16-17.
2. Kouba, A. J., **B. R. Burkhardt**, I. M. Alvarez, M. M. Goodenow, and W. C. Buhi. 2000. Oviductal Plasminogen activator inhibitor-1 (PAI-1): mRNA, protein, and hormonal regulation during the estrous cycle and early pregnancy in the pig. *Mol. Reproduc. Dev.* 56(3): 378-86.
3. Perez, E. E., S. L. Rose, B. Peyser, S. L. Lamers, **B.R. Burkhardt**, B. M. Dunn, A. D. Hutson, J. W. Sleasman, and M. M. Goodenow. 2001. Human immunodeficiency virus type 1 protease genotype predicts immune and viral responses to combination therapy with protease inhibitors (PIs) in PI-naive patients. *J. Infect. Dis.* 184(4): 579-88.
4. Goudy, K., **B. R. Burkhardt**, C. Wasserfall, T. Brusko, S. Song, T. Ellis, T. Flotte, and M. A. Atkinson. 2003. Systemic overexpression of IL-10 induces CD4+CD25+ cell populations in-vivo and ameliorates type 1 diabetes in nonobese diabetic mice in a dose-dependant fashion. *J. Immunol.* 171(5):2270-8.
5. **Burkhardt, B. R.**, S. A. Loiler, M. S. Kilberg, J. M. Crawford, T. R. Flotte, K. Goudy, T. M. Ellis, and M. A. Atkinson. 2003. Glucose-responsive expression of the human insulin promoter in HepG2 human hepatoma cells. *Ann. N.Y. Acad. Sci.* 1005: 237-41.
6. Tang, D., L. Cao, **B. R. Burkhardt**, C. Xia, S. A. Litherland, M. A. Atkinson, and L. Yang. 2004. In-vivo and in-vitro characterization of insulin-producing cells obtained from murine bone marrow. *Diabetes.* 53(7):1721-32.
7. Cao, X., J. Yang, **B. R. Burkhardt**, Z. Gao, R. K. Wong, S. Greene, J. Wu, and B. A. Wolf. 2005. Effects of over-expression of Pancreatic Derived Factor (FAM3B) in isolated mouse islets and insulin-secreting TC3 cells. *Am J Physiol Endocrinol Metab.* 289(4):E543-50.
- 8.



27. Vehik, K., N. J. Ajami, D. Hadley, J. F. Petrosino, and **B. R. Burkhardt**. 2013. The Changing Epidemiology of Type 1 Diabetes: Recent Developments and Future Frontiers. *Curr Diab Rep.* 13(5):642-50.
28. Hye-Seung, L., **B. R. Burkhardt**, W. McLeod, S. Smith, C. Eberhard, K. Lynch, D. Hadley, M. Rewers, O. Simell, J. She, B. Hagopian, A. Lernmark, B. Akolkar, A. G. Ziegler, J. P. Krischer and the TEDDY Study Group. 2014. Biomarker Discovery Study Design for type 1 diabetes in The Environmental Determinants of Diabetes in the Young (TEDDY) Study. *Diabetes Metab Res Rev.* 30(5):424-34.
29. C. E. Robert-Cooperman, G. C. Dougan, S. L. Moak, M. G. Athanason, M. N. Kuehl, H. Bell-Temin, S. M. Stevens Jr. and **B. R. Burkhardt**. 2014. PANDER Transgenic Mice Display Fasting Hyperglycemia and Hepatic Insulin Resistance.

41. Sharp-Tawfik, A.E., Coiner, A.M., MarElia C.B., Kazantzis M., Zhang C., and **Burkhardt B.R.** 2019. *Mol Cell Endocrinol.* 494:110491-110494.
42. Sharp-Tawfik A.E., **Burkhardt B.R.** 2019. Chemical profile dataset of *Cornus officinalis* from multiple sources using HPLC/MS. *Data Brief.* 25:104401.
43. Sarkar, A., Kuehl M. N., Alman A. C., **Burkhardt, B.R.** 2021 Linking the oral microbiome and salivary cytokine abundance to circadian oscillations. *Scientific Reports.* 29;11(1):2658.
44. Sharp-Tawfik A.\*, Fletcher J.D.\*, Guergues J., Marelia-Bennett C., Wolf T.J., Coiner A.M., Zhang Y.C., Stevens S.M. Jr, **Burkhardt B.R.** 2022. Proteomic examination of *Cornus officinalis* stimulated 1.1B4 human pancreatic cells reveals activation of autophagy and Keap1/Nrf2 pathway. *Mol Cell Endocrinol.*1;557:111773. (\* Co-Authorship)
45. Bailey R.J., Sarkar A., Snell-Bergeon J.K., **Burkhardt B.R.**, Chandrasekaran S, Johnson L, Alman AC. 2023. Periodontitis and cardiovascular risk factors in subjects with and without type 1 diabetes: A cross sectional analysis. *J Diabetes Complications.* 37(7):108494.
46. Ma T, Jin L, Bai S, Liu Z, Wang S, Shen B, Cho Y, Cao S, Sun MJS, Fazli L, Zhang D, Wedderburn C, Zhang DY, Mugon G, Ungerleider N, Baddoo M, Zhang K, Schiavone LH, **Burkhardt B.R.**, Fan J, You Z, Flemington EK, Dong X, Dong Y. 2024. Loss of Feedback Regulation between FAM3B and Androgen Receptor Driving Prostate Cancer Progression. *J Natl Cancer Inst.* 116(3):421-433.
47. Fletcher, J.D., Olsson, G.E., Zhang, Y.C. and **Burkhardt, B.R.** 2024. Oral gavage delivery of *Cornus officinalis* extract delays type 1 diabetes onset and hyperglycemia in non-obese diabetic (NOD) mice. *FEBS Open Bio.* 14(3):434-443.

## **BOOK CHAPTERS**

- Kapturczak, M. H., **B. R. Burkhardt**, and M. A. Atkinson. 2005. Gene therapy for prevention and treatment of type I diabetes. *Laboratory Techniques in Biochemistry and Molecular Biology.* Volume 31:125-159.

## **COMPLETED**

**1 R01 AA026082-01A1**  
NIH-NIAAA

Stevens (PI)

09/10/17-06/30/2022

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University of South Florida

The goal of this project is to define the role of a modification termed methylation that is altered through a particular protein (KDM5B) and determine the potential consequences on brain function. We anticipate that the results of our proposed studies will lead to the identification of novel treatment strategies for the management of alcoholism related to alcohol-induced brain injury.

Role: Co-I responsible for measurement of CNS inflammation via multiplexing assays

**1 R01 DE026480-01**  
NIH-NIDCR

Alman (PI)

12/01/16-11/30/2021

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University of South Florida

The goal of this project is to characterize the subgingival microbiome in type 1 diabetes (T1D) and to investigate longitudinal relationships between the subgingival microbiome, inflammation, T1D, and subclinical CVD in women with T1D.

Role: Co-I responsible for measurement of circulating inflammation via multiplexing assays

**1 R03 AA026438-01**  
NIH-NIAAA

Burkhard/Stevens (Multi-PI)

09/01/18-08/31/2021

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The goal of this R03 application is to elucidate the critical molecular processes that significantly change the function of liver cells when exposed to alcohol (ethanol). A specific protein called phosphohistidine phosphatase 1 (PHPT1) will be examined where we will characterize how its regulated and also the functional impact of related activity changes in the context of ethanol-induced liver injury in our novel PHPT1 knockout animal im

Role: Co

9. Goudy, K., Wasserfall C., **Burkhardt B.**  
dependencies using AAV-IL-





39. Kuehl, M.N., Ajami, N.J., Wong, M.C., Petrosino, J.F., Rodriguez, H., **Burkhardt, B. R.** and Alman, A. C. Glycemic control, inflammatory burden, and the oral microbiome of type 1 diabetes subjects. Diabetes and the Microbiome Research Symposium, October 27-29, 2014, Chicago, IL.
40. **Danse, W. A.**, and **Burkhardt, B. R.** Chrebp Mediated Hepatic Pander Expression. Endocrine Society's 97th Annual Meeting and Expo, March 5 8, 2015, San Diego, CA.
41. **Kuehl, M.N.**, Rodriguez, H., Alman, A.C., **Burkhardt, B. R.** Glucose Induced Interleukin-8 Secretion from Human Submandibular Gland Cell Line. Endocrine Society's 97th Annual Meeting and Expo, March 5 8, 2015, San Diego, CA.
42. Alman, A. C., Smith, S. R., Sudini, S.R., Eckel, R. H., Hokanson, J. E., **Burkhardt, B. R.**, and Snell-Bergeon, J. K Association of Pericardial Fat Density With Progression of Coronary Artery Calcification Differs by Diabetes Status in the CACTI Study. American Heart Association's 2015 Scientific Sessions and Resuscitation Science Symposium, November 7-11, 2015, Orlando, FL.
43. Athanason, M.A., Stevens, S.R. and **Burkhardt B.R.** Quantitative Proteomic Profiling of the Pander Transgenic Mouse Reveals Increased Lipogenesis and Fatty Acid Synthesis Modulated By the Liver X Receptor. Endocrine Society's 98th Annual Meeting and Expo, April 1-4, 2016, Boston, MA. (**Oral Presentation**)
44. Marelia, C.M. and **Burkhardt, B.R.** Anemarrhena rhizome and Schisandra chinensis inhibit viability and promote apoptosis in pancreatic cancer cell lines. American Association for Cancer Research Annual Meeting, April 16-20, 2016, New Orleans, LA.
45. Martin, D. **Burkhardt, B.R.** and Stevens, S.M. Proteomic analysis reveals role of the phosphohistidine phosphatase PHPT1 in ethanol-induced hepatic steatosis. 65

