- Publications:
- 1. **Settlage**, **RE**; Russo, PS; Shabanowitz, J; Hunt, DF, A Novel μ -ESI Source for coupling Capillary Electrophoresis and Mass Spectrometry: Sequence Determination of Tumor Peptides at the Attomole Level, *J. Micro. Sep.*, 10, **1998**, 281-285.
- 2. Pieper, R; Christian, RE; Gonzales, ME; Nishimura, MI; Gupta, G; **Settlage**, **RE**; Shabanowitz, J; Rosenberg, SA; Hunt, DF; Topalian, SL, Biochemical Identification of a Mutated Human Melanoma Antigen Recognized by CD4+ T Cells, *J. Exp. Med.*, 189, **1999**, 757-765.
- 3. Shabanowitz, J; **Settlage**, **RE**; Marto, JA; Christian, RE; White, FM; Russo, PS; Martin, SE; Hunt, DF, Sequencing the Primordial Soup, J. Shabanowitz, in "Mass Spectrometry in Biology and Medicine", A.L. Burlingame, S.A. Carr, and M.A. Baldwin, Eds., Humana Press, Totowa, NJ, **2000**,163-177.
- 4. Crotzer, VL; Christian, RE; Brooks, JM; Shabanowitz, J; **Settlage**, **RE**; Marto, JA; White, FM; Rickinson, AB; Hunt, DF; Engelhard, VH, Immunodominance among EBV-derived Epitopes Restricted by HLA-B27 Does Not Correlate with Epitope Abundance in EBV-Transformed B-Lyphoblastoid Cell Lines, *J. Immunology*, 164, **2000**, 6120-6129.
- 5. Pestic-Dragovich, L; Stojiljkovic, L; Philimonenko, AA; Nowak, G; Ke, Y; **Settlage**, **RE**; Shabanowitz, J; Hunt, DF; Hozak, P; de Lanorello, A Myosin I isoform in the Nucleus, *Science*, 290, **2000**, 337-341.
- 6. Baginsky, S; Shteiman-Kotler, A; Liveany, V; Yehudai-Resheff, S; Bellaoui, M; **Settlage**, RE; Shabanowitz, J; Hunt, DF; Schuster, G; Gruissem, W; Chloroplast PNPases exists as a homo-multimer enzyme complex that is distinct from the Esherichia coli degradosome; *RNA*, 7(10), **2001**, 1464-75.
- 7. Dragon, F; Compagnone-Post, PA; Gallagher, JEG; Mitchell, BM; Porwancher, KA; Wehner, KA; Wormsley, S; **Settlage**, **RE**; Shabanowitz, J; Osheim, Y; Beyer, AL; Hunt, DF; Baserga, SJ; A large nucleolar U3 ribonucleoprotein required for 18S rRNA biogenesis, *Nature*, 417(6892), **2002**, 967-970.
- 8. Angenstein, FA; Evans AM; **Settlage**, **RE**; Moran, ST; Ling, SC; Klintsova, AY; Shabanowitz, J; Hunt, DF; Greenough, WT; A receptor for activated C kinase is part of messenger ribonucleoprotein complexes associated with polyA-mRNAs in neurons, *J. Neurosci*, 22(20), **2002**, 8827-37.
- 9. Gioeli, D; Ficaro, SB; Kwiek, JJ; Aaronson, D; Hancock, M; Catling, AD; White, FM; Christian, RE; **Settlage**, **RE**; Shabanowitz, J; Hunt, DF; Weber, MJ, Androgen Receptor Phosphorylation: Regulation and Identification of the Phosphorylation Sites, *Journal of Biological Chemistry*, 277(32), **2002**, 29304-14.
- 10. Borer, LL; Russell, JG; **Settlage**, **RE**; Bryant, RG, Experiments with Tris(ethylenediamine)cobalt(III) Compounds: ⁵⁹Co NMR and the Resolution of

- Enantiomeric $[Co(en)_3]^{3+}$ Ion and Analysis by Formation of Diastereomeric Ion Pairs, *Journal of Chemical Education*, 79, **2002**, 494-497.
- 11. Thompson, LW; Hogan, KT; Caldwell, JA; Pierce RA; Hendrickson, RC; Deacon, DH; Settlage, RE; Brinckerhoff, LH; Englehard, VH; Shabanowitz, J; Hunt, DF; Slingluff, CL, Preventing the spontaneous modification of an HLA-A2-restricted peptide at an N-terminal glutamine or an internal cysteine residue enhances peptide antigenicity. *Journal of Immunotherapy*, 27, 2004, 177-183.
- 12. Yang CH, Szeliga J, Jordan J, Faske S, Sever-Chroneos Z, Dorsett B, Christian RE, Settlage RE, Shabanowitz J, Hunt DF, Whitsett JA, Chroneos ZC, Identification of the surfactant protein A receptor 210 as the unconventional myosin 18A. *Journal of Biological Chemistry*, 280, 2005, 34447-57.
- 13. Angenstein, F; Evans, AM; Ling, SC; **Settlage**, RE; Ficarro, S; Carrero-Martinez, FA; Shabanowitz, J; Hunt, DF; Greenough, WT; Proteomic characterization of messenger ribonucleoprotein complex bound to nontranslated or translated poly(A) mRNAs in the rat cerebral cortex. *Journal of Biological Chemistry*, 280, **2005**, 6496-503.
- 14. Yates, NA; Deyanova, EG; Geissler, W; Wiener, MC; Sachs, JR; Wong, KK; Thornberry, NA; Roy, RS; **Settlage**, RE; Hendrickson, RC, Identification of peptidase substrates in human plasma by FTMS based differential mass spectrometry, International Journal of Mass Spectrometry, 259, **2007**, 174-183.
- Zhao, X; Deyanova, EG; Lubbers, LS; Zafian, P; Li, JJ; Liaw, A; Song, Q; Du; Y; Settlage, RE; Hickey, GJ; Yates, NA; and Hendrickson, RC, Differential Mass Spectrometry of Rat Plasma Reveals Proteins That Are Responsive to 17beta-Estradiol and a Selective Estragen Receptor Modulator PPT. *Journal of Proteome Research*, 7(10), 2008, 4373-83.
- 16. Lee, AY; Paweletz, CP; Pollock, RM; **Settlage**, RE; Cruz, JC; Secrist, JP; Miller, TA; Stanton, MG; Kral, AM; Ozerova, ND; Meng, F; Yates, NA; Richon, V; Hendrickson, RC, Quantitative Analysis of Histone Deacetylase-1 Selective Histone Modifications by Differential Mass Spectrometry *Journal of Proteome Research*, 7(12), **2008**, 5177-5186.
- 17. Paweletz, CP; Wiener, MC; Bondarenko, AY; Yates, NA; Song, Q; Liaw, A; Lee, AY; Hunt, BT; Henle, ES; Meng, F; Sleph, HF; Holahan, M, Sankaranarayanan, S; Simon, AF; **Settlage**, RE; Sachs, JR; Shearman, M, Sachs, AB; Cook, JJ; Hendrickson, RC, Application of an End-to-End Biomarker Discovery Platform to Identify Target Engagement Markers in Cerebrospinal Fluid by High Resolution Differential Mass Spectrometry *Journal of Proteome Research*, 9(3), **2010**, 1392-1401.
- 18. Friedman D.B., Andacht T.M., Bunger M.K., Chien A.S., Hawke D.H., Krijgsveld J., Lane W.S., Lilley K.S., MacCoss M.J., Moritz R.L., **Settlage R.E.**, Sherman N.E., Weintraub S.T., Witkowska H.E., Yates N.A., Turck C.W., The ABRF Proteomics Research Group studies: educational exercises for qualitative and quantitative proteomic analyses. *Proteomics*. **2011** Apr;11(8):1371-81.

- 19. Tae, H., Shallom, S., **Settlage, R.E.,** Preston, D., Adams, L.G., Garner, H.R, Revised Genome Sequence of Brucella suis 1330. J. Bacteriology, 193(22), **2011**, 6410.
- 20. Tae, H., Shallom, S., **Settlage, R.E.**, Hawkins, G.N., Adams, L.G., Garner, H.R, Complete Genome Sequence of Brucella suis VBI22, Isolated from Bovine Milk. J. *Bacteriology*, 194(4), **2012**, 910.
- 21. Tae H, Settlage RE, Shallom S, Bavarva JH, Preston D, Hawkins GN, Adams LG, Garner HR. Improved variation calling via an iterative backbone remapping and local assembly method for bacterial genomes. *Genomics*. **2012** Nov;100(5):271-6.
- 22. Radakovits, R., Jinkerson, R.E., Fuerstenberg, S.I., Tae, H., **Settlage, R.E.**, Boore, J.L., Posewitz, M.C, Draft genome sequence and genetic transformation of the oleaginous alga Nannochloropsis gaditana, *Nature Communications*, 3:686, **2012**.
- 23. Bavarva J.H., Tae H., **Settlage R.E.**, Garner H.R., Characterizing the Genetic Basis for Nicotine Induced Cancer Development: A Transcriptome Sequencing Study. *PLoS One.* **2013** Jun 18;8(6):e67252.
- 24. Tae H., McMahon K.W., **Settlage R.E.**, Bavarva J.H., Garner H.R., ReviSTER: an automated pipeline to revise misaligned reads to simple tandem repeats. *Bioinformatics*. **2013** Jul 15;29(14):1734-41.
- Zhang H., Wang H., Shepherd M., Wen K., Li G., Yang X., Kocher J., Giri-Rachman E., Dickerman A., **Settlage R.**, Yuan L., Probiotics and virulent human rotavirus modulate the transplanted human gut microbiota in gnotobiotic pigs. *Gut Pathog.* **2014** Sep 9;6:39.
- Jiang X., Peery A., Hall A.B., Sharma A., Chen X.G., Waterhouse R.M., Komissarov A., Riehle M.M., Shouche Y., Sharakhova M.V., Lawson D., Pakpour N., Arensburger P., Davidson V.L., Eiglmeier K., Emrich S., George P., Kennedy R.C., Mane S.P., Maslen G., Oringanje C., Qi Y., Settlage R., Tojo M., Tubio J.M., Unger M.F., Wang B., Vernick K.D., Ribeiro J.M., James A.A., Michel K., Riehle M.A., Luckhart S., Sharakhov I.V., Tu Z.., Genome analysis of a major urban malaria vector mosquito, Anopheles stephensi. Genome Biol. 2014 Sep 23;15(9):459.
- 27. Zhang H., Sparks J.B., Karyala S.V., **Settlage R.**, Luo X.M., Host adaptive immunity alters gut microbiota. *ISME J.* **2015** Mar;9(3):770-81.
- 28. Monson M.S., **Settlage R.E.**, McMahon K.W., Mendoza K.M., Rawal S., El-Nezami H.S., Coulombe R.A., Reed K.M., Response of the hepatic transcriptome to aflatoxin B1 in domestic turkey (Meleagris gallopavo). PLoS One. **2014** Jun 30;9(6).
- 29. Dalloul R.A., Zimin A.V., **Settlage R.E.**, Kim S., Reed K.M., Next-generation sequencing strategies for characterizing the turkey genome. *Poult Sci.* **2014** Feb;93(2):479-84.
- 30. Tae H., Kim D.Y., McCormick J., **Settlage R.E.**, Garner H.R., Discretized Gaussian mixture for genotyping of microsatellite loci containing homopolymer runs. *Bioinformatics*. **2014** Mar 1;30(5):652-9.
- 31. Monson M.S., **Settlage R.E.**, Mendoza K.M., Rawal S., El-Nezami H.S., Coulombe R.A., Reed K.M., Modulation of the spleen transcriptome in domestic turkey (Meleagris gallopavo) in response to aflatoxin B1 and probiotics. *Immunogenetics*. **2015** Mar;67(3):163-78.

- 32. Zhang W., Kim S., **Settlage R.**, McMahon W., Sumners L.H., Siegel P.B., Dorshorst B.J., Cline M.A., Gilbert E.R., Hypothalamic differences in expression of genes involved in monoamine synthesis and signaling pathways after insulin injection in chickens from lines selected for high and low body weight. *Neurogenetics*. **2015** Apr;16(2):133-44.
- 33. Zalenskaya I.A., Joseph T., Bavarva J., Yousefieh N., Jackson S.S., Fashemi T., Yamamoto H.S., **Settlage R.**, Fichorova R.N., Doncel G.F., Gene Expression Profiling of Human Vaginal Cells In Vitro Discriminates Compounds with Pro-Inflammatory and Mucosa-Altering Properties: Novel Biomarkers for Preclinical Testing of HIV Microbicide Candidates. *PLoS One*. **2015** Jun 8;10(6).
- 34. Ding J, Reynolds LM, Zeller T, Müller C, Lohman K, Nicklas BJ, Kritchevsky SB, Huang Z, de la Fuente A, Soranzo N, **Settlage RE**, Chuang CC, Howard T, Xu N, Goodarzi MO, Chen YD, Rotter JI, Siscovick DS, Parks JS, Murphy S, Jacobs DR Jr, Post W, et al. Alterations of a Cellular Cholesterol Metabolism Network Are a Molecular Feature of Obesity-Related Type 2 Diabetes and Cardiovascular Disease. *Diabetes*. **2015** Oct;64(10):3464-74.
- 35. Liao X, Li S, **Settlage RE**, Sun S, Ren J, Reihl AM, Zhang H, Karyala SV, Reilly CM, Ahmed SA, Luo XM. Cutting Edge: Plasmacytoid Dendritic Cells in Late-Stage Lupus Mice Defective in Producing IFN-α. *J Immunol*. **2015** Nov 15;195(10):4578-82. doi: 10.4049/jimmunol.1501157
- 36. Hendrickson RC, Lee AY, Song Q, Liaw A, Wiener M, Paweletz CP, Seeburger JL, Li J, Meng F, Deyanova EG, Mazur MT, **Settlage RE**, Zhao X, Southwick K, Du Y, Holder D, Sachs JR, Laterza OF, Dallob A, Chappell DL, Snyder K, Modur V, et al. High Resolution Discovery Proteomics Reveals Candidate Disease Progression Markers of Alzheimer's Disease in Human Cerebrospinal Fluid. *PLoS One*. **2015**;10(8):e0135365.
- 37. Davis M, Jessee R, Close M, Fu X, **Settlage R**, Wang G, Cline MA, Gilbert ER. Fasting for 21days leads to changes in adipose tissue and liver physiology in juvenile checkered garter snakes (Thamnophis marcianus). *Comp Biochem Physiol A Mol Integr Physiol.* **2015** Sep 7;190:68-74.
- 38. Wang Z, Leary DH, Liu Jinny, **Settlage RE**, Fears KP, North SH, Mostaghim A, Burns TE, Haynes SE, Wahl KJ, Spillman CM., Molt-dependent transcriptomic analysis of cement proteins in the barnacle *Amphibalanus amphitrite*. *BMC Genomics*. **2015**; 16:859.
- 39. Reed KM, Mendoza KM, **Settlage RE**., Targeted capture enrichment and sequencing identifies extensive nucleotide variation in the turkey MHC-B. Immunogenetics. **2016** Mar;68(3):219-29.
- 40. Kang L, **Settlage R**, McMahon W, Michalak K, Tae H, Garner HR, Stacy EA, Price DK, Michalak P. Genomic Signatures of Speciation in Sympatric and Allopatric Hawaiian Picture-Winged Drosophila. *Genome Biol Evol.* **2016** May 30;8(5):1482-8.
- 41. Mattison CP, Rai R, **Settlage RE**, Hinchliffe DJ, Madison C, Bland JM, Brashear S, Graham CJ, Tarver MR, Florane C, Bechtel PJ. RNA-Seq Analysis of Developing Pecan (Carya illinoinensis) Embryos Reveals Parallel Expression Patterns among

- Allergen and Lipid Metabolism Genes. *J Agric Food Chem.* **2017** Feb 22;65(7):1443-1455.
- 42. Bishop BM, Juba ML, Russo PS, Devine M, Barksdale SM, Scott S, **Settlage R**, Michalak P, Gupta K, Vliet K, Schnur JM, van Hoek ML. Discovery of Novel Antimicrobial Peptides from Varanus komodoensis (Komodo Dragon) by Large-Scale Analyses and De-Novo-Assisted Sequencing Using Electron-Transfer Dissociation Mass Spectrometry. *J Proteome Res.* **2017** Apr 7;16(4):1470-1482.
- 43. Nichols AEC, **Settlage RE**, Werre SR, Dahlgren LA. Novel roles for scleraxis in regulating adult tenocyte function. *BMC Cell Biol*. **2018** Aug 7;19(1):14. PubMed PMID: 30086712; PubMed Central PMCID: PMC6081934.
- 44. Todd SM, **Settlage RE**, Lahmers KK, Slade DJ. Fusobacterium Genomics Using MinION and Illumina Sequencing Enables Genome Completion and Correction. *mSphere*. **2018** Jul 5;3(4)PubMed PMID: 29976645; PubMed Central PMCID: PMC6034080.
- 45. Leng X, Ji X, Hou Y, **Settlage R**, Jiang H. Roles of the proteasome and inhibitor of DNA binding 1 protein in myoblast differentiation. *FASEB J.* **2019** Mar 13;:fj201800574RR. PubMed PMID: 30865843.
- 46. Ates, KM, Wang, T, Moreland, T, Veeranan-Karmegam, R, Ma, M, Jeter, C, Anand, P, Wenzel, W, Kim, H, Wolfe, LA, Stephen, J, Adams, DR, Markello, T, Tifft, CJ, Settlage, RE, Gahl, W, Gonsalvez, GB, Malicdan, MCV, Steet, HF, PAn, YA Deficiency in the endocytic adaptor proteins PHETA1/2 impair renal and craniofacial development *Disease Models and Mechanisms* 2020 Mar 13(5):dmm.041913.
- 47. Castro, R, Taetzsch, T, Vaughan, S, Godbe, K, **Settlage, RE**, Chappell, J, Valdez, G Identification of a molecular fingerprint for synaptic glia *bioRxiv* **2020** Mar doi: https://doi.org/10.1101/2020.03.13.991323.
- 48. van Hoek ML, Prickett MD, **Settlage RE**, Kang L, Michalak P, Vliet KA, Bishop BM. The Komodo dragon (Varanus komodoensis) geonome and identification of innate immunity genes and clusters. *BMC Genomics*. **2019** Aug 30;20(1) PMID: 31470795.
- 49. **Settlage, RE**, Chalker, A, Franz, E, Johnson, D, Gallo, S, Moore, E, Hudak, DE, Open OnDemand: HPC for Everyone **2019** Dec High Performance Computing. DOI:10.1007/978-3-030-34356-9 38.
- **Settlage, RE**, Rajamohan, S, Lahmers, K, Chalker, A, Franz, E, Gallo, S, Hudak, DE Portals for Interactive Steering of HPC Workflows *Tools and Techniques for High Performance Computing* **2020** March.
- Patel, PA, Liang, C, Arora, A, Vijayan, S, Ahuja, S, Wagley, PK, **Settlage, R**, Laconte, LEW, Gookdin, HP, Lazar, I, Srivastava, S, Mukherjee, K Haploinsufficiency of X-linked intellectual disability gene CASK induces post transcriptional changes in synaptic and cellular metabolic pathways, *Experimental Neurology* **2020** Apr 329 (2020) 113319.
- 52. Castro R, Taetzsch T, Vaughan SK, Godbe K, Chappell J, **Settlage RE**, Valdez G. Specific labeling of synaptic schwann cells reveals unique cellular and molecular features. *Elife*. **2020** Jun 25;9:e56935.

- **53.** Rajamohan, S, **Settlage**, **RE**. Informing the On/Off-prem Cloud Discussion in Higher Education, *PEARC'20: Practice and Experience in Advanced Research Computing*, July **2020**.
- 54. Sheehan LM, Budnick JA, Fyffe-Blair J, King KA, **Settlage RE**, Caswell CC. The Endoribonuclease RNase E Coordinates Expression of mRNAs and Small Regulatory RNAs and is Critical for the Virulence of Brucella abortus. *J Bacteriol*. **2020** Sep 23;202(20):e00240-20. PMID: 32747427.
- Taetzsch T, Shapiro D, Eldosougi R, Myers T, **Settlage RE**, Valdez G. The microRNA miR-133b functions to slow Duchenne muscular distrophy pathogeneis *J Physiol*. **2020** Sep 29. PMID: 32991751.
- 56. Compton, A, Liang, J, Chen, C, Lukyanchikova, V, Qi, Y, Potters, M, **Settlage, RE**, Miller, D, Deschamps, S, Mao, C, Llaca, V, Sharakhov, I, Tu, Z., The Beginning of the End: A Chromosomal Assembly of the New World Malaria Mosquito Ends with a Novel Telomere. *G3-Genes Genomes Genetics* **2020** September 10(10).