Rachel Jamison Perry, Ph.D.
Assistant Professor, Internal Medicine-Endocrinology and Cellular & Molecular Physiology
Co-Director, Yale Diabetes Research Center *in vivo* Metabolism Core
Yale University School of Medicine

EDUCATION:

Yale University	Biomedical Engineering	B.S.	2008
Yale University	Cellular & Molecular Physiology	Ph.D.	2013
Yale University	Internal Medicine	Postdoctoral training	2014-2017

HONORS AND AWARDS:

2022-28	NIH R37 MERIT Award
2021	Keynote Address, City of Hope Metabolism & Cancer Meeting
2021-24	Melanoma Research Alliance Young Investigator Award
2021	Rising Stars in Cancer Metabolism Award
2020-23	Kingsley Fellow, Yale University School of Medicine
2019	Breakthrough of the Year, Yale Cancer Signaling Networks Program
2018	Translational Science Research Prize, Yale Cancer Center
2017	Postdoc of the Year, Journal of Postdoctoral Research
2017	January Postdoc of the Month, Journal of Postdoctoral Research
2016	Blavatnik Awards for Young Scientists, finalist
2016	Bouchet Graduate Honor Society, postdoctoral member
2013	Ph.D. with Distinction

PEER-REVIEWED ORIGINAL RESEARCH PUBLICATIONS AND PREPRINTS:

1. Akingbesote ND^{+}, Leitner BP^{+}, Jovin DG, Desrouleaux R, Zhu W, Li Z, Pollak MN, **Perry RJ*** (2022). Gene Expression and Tracer-Based Metabolic Flux Analysis Reveals Tissue-Specific Metabolic Scaling *in vitro*, *ex vivo*, and *in vivo*. *bioRxiv* 2022.03.02.482685. *Corresponding author.
2. Akingbesote ND, Norman A, Zhu W, Halberstam AA, Zhang X, Foldi J, Lustberg MB, **Perry RJ*** (2022). A Precision Medicine Approach to Metabolic Therapy for Breast Cancer in Mice. *Commun. Biol.* 5:478. *Corresponding author.
3. Marczyk M, Gunasekharan V, Casadevall D, Qing T, Foldi J, Sehgal R, Shan NL, Blenman KRM, O'Meara TA, Umlauf S, Surovtseva YV, Muthusamy V, Rinehart J, **Perry RJ**, Kibbey R, Hatzis C, Pusztai L (2022). Comprehensive analysis of metabolic isozyme targets in cancer. *Cancer Res.* 82:1698-1711.
4. Schaubroeck KJ, Leitner BP, **Perry RJ*** (2022). An optimized method for tissue glycogen quantification. *Physiol. Rep.* 10:e15195. *Corresponding author.
5. Huang Y, Zhou JH, Zhang H, Canfrán-Duque A, Singh AK, **Perry RJ**, Shulman G, Fernandez-Hernando C, Min W (2022). Brown adipose TRX2 deficiency activates mtDNA-NLRP3 to impair thermogenesis and protect against diet-induced insulin resistance. *J. Clin. Invest.* e148852.
6. Leitner BP, Givechian KB, Ospanova S, Beisenbayeva A, Politi K, **Perry RJ*** (2022). Multimodal Analysis Suggests Differential Immuno-Metabolic Crosstalk in Lung Squamous Cell Carcinoma and Adenocarcinoma. *npj Precision Oncology* 6:8. *Corresponding author.
7. Wang Q, Li D, Cao G, Shi Q, Zhu J, Zhang M, Cheng H, Wen Q, Xu H, Zhu L, Zhang H, **Perry RJ**, Spadaro O, Yang Y, He S, Chen Y, Wang B, Li G, Liu Z, Yang C, Wu X, Zhou L, Zhou Q, Ju Z, Lu H, Xin Y, Yang X, Wang C, Liu Y, Shulman GI, Dixit VD, Lu L, Yang H, Flavell RA, Yin Z (2021). IL-27 signaling promotes adipocyte thermogenesis and energy expenditure. *Nature* 600:314-318.
8. Schumann T, König J, von Loeffelholz C, Vatner DF, Zhang D, **Perry RJ**, Bernier M, Chami J, Henke C, Kurzbach A, El-Agroudy NN, Willmes DM, Pesta D, de Cabo R, O Sullivan JF, Simon E, Shulman GI, Hamilton BS, Birkenfeld AL (2021). Deletion of the diabetes candidate gene Slc16a13 in mice attenuates diet-induced ectopic lipid accumulation and insulin resistance. *Commun. Biol.* 4:826.
9. Lyu K, Zhang D, Song JD, **Perry RJ**, Samuel VT, Shulman GI (2021). Short-term overnutrition induces white adipose tissue insulin resistance through sn-1,2-diacylgycerol-PKCε-insulin receptorT^{1160} phosphorylation. *JCI Insight* 6:e139946.

10. Han MS, **Perry RJ**, Camporez JP, Scherer PE, Shulman GI, Gao G, Davis RJ (2021). A feed-forward regulatory loop in adipose tissue promotes signaling by the hepatokine FGF21. *Genes Dev.* 35:133-146.
11. He F, Huang Y, Song Z, Zhou HJ, Zhang H, **Perry RJ**, Shulman GI, Min W (2021). Mitophagy-mediated adipose inflammation contributes to type 2 diabetes with hepatic insulin resistance. *J. Exp. Med.* 218:e20201416.
12. Li X, Zhang D, Vatner DF, Goedeke L, Hirabara SM, Zhang Y, **Perry RJ**, Shulman GI (2020). Mechanisms by which adiponectin reverses high fat diet-induced insulin resistance in mice. *Proc. Natl. Acad. Sci. U.S.A.* 117:32584-93.
13. Wang L, Sinnott-Armstrong N, Wagschal A, Wark AR, Camporez JP, **Perry RJ**, Ji F, Sohn Y, Oh J, Wu S, Chery J, Moud BN, Saadat A, Dankel SN, Mellgren G, Tallapragada DSP, Strobel SM, Lee MJ, Tewhey R, Sabeti PC, Schaefer A, Petri A, Kauppinen S, Chung RT, Soukas A, Avruch J, Fried SK, Hauner H, Sadreyev RI, Shulman GI, Claussnitzer M, Näär AM (2020). A MicroRNA Linking Human Positive Selection and Metabolic Disorders. *Cell* 183:684-701.e14.
14. Qing H*, Desrouleaux R*, Israni-Winger K, Mineur YS, Fogelman N, Zhang C, Rashad S, Palm NW, Sinha R, Piccioto MR, **Perry RJ**, Wang A (2020). Origin and function of stress-induced IL-6. *Cell* 182:372-387.
15. Leitner BP, **Perry RJ*** (2020). The Impact of Obesity on Tumor Glucose Uptake in Breast and Lung Cancer. *JNCI Cancer Spectrum* 4:pkaa007. *Corresponding author.
16. **Perry RJ**, Zhang D, Guerra MT, Brill AL, Goedeke L, Nasiri AR, Rabin-Court A, Wang Y, Peng L, Dufour S, Zhang Y, Zhang XM, Butrico GM, Toussaint K, Nozaki Y, Cline GW, Petersen KF, Nathanson MH, Ehrlich BE, Shulman GI (2020). Glucagon stimulates gluconeogenesis by $InsP_3R$-I mediated hepatic lipolysis. *Nature* 579:279-83.
17. **Perry RJ**, Lyu K, Rabin-Court A, Dong J, Li X, Yang Y, Qing H, Wang A, Yang X, Shulman GI (2020). Leptin Mediates Postprandial Increases in Body Temperature Through Hypothalamic-Adrenomedullary-Adipose Tissue Crosstalk. *JCI* 130:2001-16.
18. Yang Y, Li X, Luan HH, Zhang B, Zhang K, Nam JH, Li Z, Fu M, Munk A, Zhang D, Wang S, Liu Y, Albuquerque JP, Ong Q, Li R, Wang Q, Robert ME, **Perry RJ**, Chung D, Shulman GI, Yang X (2020). OGT suppresses S6K1-mediated macrophage inflammation and metabolic disturbance. *PNAS* 117:16616-16625.
19. Nozaki Y, Petersen MC, Zhang D, Vatner DF, **Perry RJ**, Abulizi A, Haedersdal S, Zhang XM, Butrico GM, Samuel VT, Mason GF, Cline GW, Petersen KF, Rothman DL, Shulman GI (2020). Metabolic control of hepatic glycogen synthesis in vivo. *PNAS* 117:8166-76.
20. Han MS, White A, **Perry RJ**, Camporez JP, Hidalgo J, Shulman GI, Davis RJ (2020). Regulation of adipose tissue inflammation by interleukin 6. *PNAS* 117:2751-60.
21. Nasiri AR, Rodrigues MR, Li Z, Leitner BP, **Perry RJ*** (2019). SGLT2 inhibition slows tumor growth in mice by reversing hyperinsulinemia. *Cancer & Metabolism* 7:10. *Corresponding author.
22. Rabin-Court A, Rodrigues MR, Zhang XM, **Perry RJ*** (2019). Obesity-associated, but not obesity-independent, tumors respond to insulin by increasing mitochondrial glucose oxidation. *PLOS One* 14:e0218126. *Corresponding author.
23. **Perry RJ***, Resch JM*, Douglass AM*, Madara JC, Rabin-Court A, Kuckdereli H, Wu C, Song JD, Lowell BB^+, Shulman GI^+ (2019). Leptin's hunger-suppressing effects are mediated by the hypothalamic-pituitary-adrenocortical axis in rodents. *PNAS* 116:13670-13679. * and +, equal contributions.
24. **Perry RJ**, Rabin-Court A, Song JD, Cardone RL, Wang Y, Kibbey RG, Shulman GI (2019). Dehydration and insulinopenia are both necessary and sufficient to cause euglycemic ketoacidosis in awake rats treated with an SGLT2 inhibitor. *Nature Communications* 10:1-10.
25. Gómez-Banoy N, Guseh JS, Li G, Rubio-Navarro A, Chen T, Poirier B, Putzel G, Rosselot C, Pabón MA, Camporez JP, Bhambhani V, Hwang SJ, Yao C, **Perry RJ**, Mukherjee S, Larson MG, Levy D, Dow LE, Shulman GI, Dephoure N, Garcia-Ocana A, Hao M, Spiegelman BM, Ho JE, Lo JC (2019). Adipsin preserves beta cells in diabetic mice and associates with protection from type 2 diabetes in humans. *Nat. Med.* 25:1739-47.

26. Goedeke L, Peng L, Montalvo-Romeral V, Butrico GM, Dufour S, Zhang XM, **Perry RJ**, Cline GW, Kievit P, Chng K, Petersen KF, Shulman GI (2019). Controlled-release mitochondrial protonophore (CRMP) reverses dyslipidemia and hepatic steatosis in dysmetabolic nonhuman primates. *Science Transl. Med.* 11: eaay0284.
27. Zhao L, Pascual F, Bacudio L, Suchanek AL, Young PA, Li LO, Martin SA, Camporez JP, **Perry RJ**, Shulman GI, Klett EL, Coleman RA (2019). Defective fatty acid oxidation in mice with muscle-specific acyl-CoA synthetase 1 deficiency increases amino acid use and impairs muscle function. *J. Biol. Chem*. 294:8819-33.
28. Wang Y, Nasiri AR, Damsky WE, Perry CJ, Zhang XM, Rabin-Court A, Pollak MN, Shulman GI, **Perry RJ*** (2018). Uncoupling Hepatic Oxidative Phosphorylation Reduces Tumor Growth in Two Murine Models of Colon Cancer. *Cell Reports* 24:47-55. *Corresponding author.
29. **Perry RJ,** Wang Y, Cline GW, Rabin-Court A, Song JD, Dufour S, Zhang XM, Petersen KF, Shulman GI (2018). Leptin mediates a glucose-fatty acid cycle to maintain glucose homeostasis in starvation. *Cell* 172:234-48.
30. **Perry RJ**, Peng L, Cline GW, Wang Y, Rabin-Court A, Song JD, Zhang D, Zhang XM, Nozaki Y, Dufour S, Petersen KF, Shulman GI (2018). Mechanisms by which a very low calorie diet reverses hyperglycemia in a rat model of type 2 diabetes. *Cell Metab.* 27:210-7.
31. Madiraju AK, Qiu Y, **Perry RJ**, Rahimi Y, Zhang XM, Zhang D, Camporez JG, Cline GW, Butrico GM, Kemp BE, Casals G, Steinberg GR, Vatner DF, Petersen KF, Shulman GI (2018). Metformin inhibits gluconeogenesis via a redox-dependent mechanism *in vivo*. *Nat. Med.* 24:1384-94.
32. Goedeke L, Bates J, Vatner DF, **Perry RJ**, Wang T, Ramirez R, Li L, Ellis MW, Zhang D, Wong KE, Beysen C, Cline GW, Ray AS, Shulman GI (2018). Acetyl-CoA Carboxylase Inhibition Reverses NAFLD and Hepatic Insulin Resistance but Promotes Hypertriglyceridemia in Rodents. *Hepatology* 68:2197-2211.
33. Qiu Y, **Perry RJ**, Camporez JG, Zhang XM, Kahn M, Cline GW, Shulman GI, Vatner DF (2018). *In vivo* studies on the mechanism of methylene cyclopropyl acetic acid and methylene cyclopropyl glycine-induced hypoglycemia. *Biochem. J.* 475:1063-74.
34. Corbit KC, Camporez JPG, Edmunds LR, Tran JL, Vera NB, Erion DM, Deo RC, **Perry RJ**, Shulman GI, Jurczak MJ, Weiss EJ (2018). Adipocyte JAK2 Regulates Hepatic Insulin Sensitivity Independently of Body Composition, Liver Lipid Content, and Hepatic Insulin Signaling. *Diabetes* 67:208-21.
35. **Perry RJ**, Peng L, Abudukadier A, Kennedy L, Cline GW, Shulman GI (2017). Mechanism for leptin's acute insulin-independent effect to reverse diabetic ketoacidosis. *JCI* 127:657-669.
36. **Perry RJ,** Peng L, Cline GW, Butrico GM, Wang Y, Zhang XM, Rothman DL, Petersen KF, Shulman GI (2017). Non-invasive assessment of hepatic mitochondrial metabolism by positional isotopomer NMR tracer analysis (PINTA). *Nat. Comm.* 8:798.
37. **Perry RJ***, Peng L*, Cline GW, Petersen KF, Shulman GI (2017). A non-invasive method to assess hepatic acetyl-CoA *in vivo*. *Cell Metab.* 25:749-56. *Equal contributions.
38. Ferrandino G, Kaspari RR, Spadaro O, Reyna-Neyra A, **Perry RJ**, Cardone R, Kibbey RG, Shulman GI, Dixit VD, Carrasco N (2017). Pathogenesis of hypothyroidism-induced NAFLD is driven by intra- and extrahepatic mechanisms. *PNAS* 114:E9172-80.
39. Vijayakumar A, Aryal P, Wen J, Syed I, Vazirani R, Camporez J-P, Moraes-Vieira PM, Gallop MR, **Perry RJ**, Peroni OD, Shulman GI, Saghatelian A, McGraw TE, Kahn BB (2017). Absence of Carbohydrate Response Element Binding Protein in Adipocytes Causes Systemic Insulin Resistance and Impairs Glucose Transport. *Cell Reports* 21:1021-1035.
40. Abulizi A, **Perry RJ**, Camporez JP, Jurczak MJ, Petersen KF, Aspichueta P, Shulman GI (2017). A controlled-release mitochondrial protonophore reverses hypertriglyceridemia, non-alcoholic steatohepatitis, and diabetes in lipodystrophic mice. *FASEB J.* 31:2916-2924.
41. Corbit KC, Camporez JPG, Tran JL, Wilson CG, Lowe DA, Nordstrom SM, Ganeshan K, **Perry RJ**, Shulman GI, Jurczak MJ, Weiss EJ (2017). Adipocyte JAK2 mediates growth hormone-induced hepatic insulin resistance. *JCI Insight* 2:e91001.
42. Sharabi K, Lin H, Tavares CD, Dominy JE, Camporez JP, **Perry RJ**, Schilling R, Rines AK, Lee J, Hickey M, Bennion M, Palmer M, Nag PP, Bittker JA, Perez J, Jedrychowski MP, Ozcan U, Gygi

SP, Kamenecka TM, Shulman GI, Schreiber SL, Griffin PR, Puigserver P (2017). Selective Chemical Inhibition of PGC-1α Gluconeogenic Activity Ameliorates Type 2 Diabetes. *Cell* 169:148-160.

43. Ferris HA, **Perry RJ**, Moreira GV, Shulman GI, Horton JD, Kahn CR (2017). Loss of astrocyte cholesterol synthesis disrupts neuronal function and alters whole-body metabolism. *PNAS* 114:1189-94.
44. **Perry RJ**, Peng L, Barry NA, Cline GW, Zhang D, Cardone RL, Petersen KF, Kibbey RG, Goodman AL, Shulman GI (2016). Acetate mediates a gut biome-brain-β cell axis to promote metabolic syndrome. *Nature* 534:213-7.
45. **Perry RJ**, Cardone RL, Petersen MC, Zhang D, Fouqueray P, Hallakou-Bozec S, Bolze S, Shulman GI, Petersen KF, Kibbey RG (2016). Imeglimin lowers glucose primarily by amplifying glucose-stimulated insulin secretion in high-fat-fed rodents. *AJP Endo.* 311:E461-70.
46. **Perry RJ**, Borders CB, Cline GW, Zhang X-M, Alves TC, Petersen KF, Rothman DL, Kibbey RG, Shulman GI (2016). Propionate increases hepatic pyruvate cycling, anaplerosis and alters mitochondrial metabolism. *J. Biol. Chem.* 291:12161-70.
47. **Perry RJ**, Lee S, Ma L, Zhang D, Schlessinger J, Shulman GI (2015). FGF1 and FGF19 reverse diabetes by suppression of the hypothalamic-pituitary-adrenal axis. *Nat. Comm.* 6:6980.
48. **Perry RJ**, Zhang D, Zhang X-M, Boyer JL, Shulman GI (2015). Controlled-release mitochondrial protonophore reverses diabetes and steatohepatitis in rats. *Science* 347:1253-6.
49. **Perry RJ**, Camporez JP, Kursawe R, Titchenell PM, Zhang D, Perry CJ, Jurczak MJ, Abudukadier A, Han MS, Zhang X-M, Ruan H-B, Yang X, Caprio S, Kaech SM, Sul HS, Birnbaum MJ, Davis RJ, Cline GW, Petersen KF, Shulman GI (2015). Hepatic Acetyl CoA Links Adipose Tissue Inflammation to Hepatic Insulin Resistance and Type 2 Diabetes. *Cell* 160:745-58.
50. Vatner DF, Snikeris J, Popov V, **Perry RJ**, Rahimi Y, Samuel VT (2015). 3,5 Diiodo-L-Thyronine (T2) Does Not Prevent Hepatic Steatosis or Insulin Resistance in Fat-Fed Sprague Dawley Rats. *PLoS One* 10:e0140837.
51. Pesta D, **Perry RJ**, Guebre-Egziabher F, Zhang D, Jurczak M, Fischer-Rosinsky A, Daniels MA, Willmes DM, Bhanot S, Bornstein SR, Knauf F, Samuel VT, Shulman GI, Birkenfeld AL (2015). Prevention of diet-induced hepatic steatosis and hepatic insulin resistance by second generation antisense oligonucleotides targeted to the longevity gene mIndy (Slc13a5). *Aging (Albany NY)* 7:1086-93.
52. Befroy DE*, **Perry RJ***, Jain N, Dufour S, Cline GW, Trimmer J, Brosnan J, Rothman DL, Petersen KF, Shulman GI (2014). Direct assessment of hepatic mitochondrial oxidative and anaplerotic fluxes in humans using dynamic ^{13}C magnetic resonance spectroscopy. *Nature Medicine* 20:98-102. *Equal contributions.
53. **Perry RJ**, Zhang X-M, Zhang D, Kumashiro N, Camporez J-P, Cline GW, Rothman DL, Shulman GI (2014). Leptin reverses diabetes by suppression of the hypothalamic-pituitary-adrenal axis. *Nature Medicine* 20:759-63.
54. Cantley JL, Vatner DF, Galbo T, Madiraju A, Petersen M, **Perry RJ**, Kumashiro N, Guebre-Egziabher F, Gattu AK, Stacy MR, Dione DP, Sinusas AJ, Ragolia L, Hall CE, Manchem VP, Bhanot S, Bogan JS, Samuel VT (2014). Targeting steroid receptor coactivator 1 with antisense oligonucleotides increases insulin-stimulated skeletal muscle glucose uptake in chow-fed and high-fat-fed male rats. *Am J Physiol Endocrinol Metab*. 307:E773-83.
55. Rahimi Y, Camporez J-P, Petersen MC, Pesta D, **Perry RJ**, Jurczak MJ, Cline GW, Shulman GI (2014). Genetic activation of pyruvate dehydrogenase alters oxidative substrate selection to induce skeletal muscle insulin resistance. *PNAS*, 111:16508-13.
56. Neuschafer-Rube F, Lieske S, Kuna M, Henkel J, **Perry RJ**, Erion D, Pesta D, von Loeffelholz C, Willmes D, Tolkachov A, Brachs S, Pfeiffer A, Pathe-Neuschafer-Rube A, Shulman GI, Puschel G, Birkenfeld A (2014). The Mammalian INDY Homolog Is Induced by CREB in a Rat Model of Type 2 Diabetes. *Diabetes*, 63:1048-1057.
57. **Perry RJ**, Kim T, Zhang X-M, Lee H-Y, Pesta D, Popov VB, Zhang D, Rahimi Y, Jurczak MJ, Cline GW, Spiegel DA, Shulman GI (2013). Reversal of Hypertriglyceridemia, Fatty Liver Disease, and Insulin Resistance by a Liver-Targeted Mitochondrial Uncoupler. *Cell Metab*. 18:740-8.

58. Galbo T, **Perry RJ**, Nishimura E, Samuel VT, Quistorff BJ, and Shulman GI (2013). PP2A inhibition results in hepatic insulin resistance despite Akt2 activation. *Aging (Albany NY)* 10:770-81.
59. Galbo T, **Perry RJ**, Jurczak MJ, Camporez J-P, Alves TC, Kahn M, Guigni BA, Serr J, Zhang D, Bhanot S, Samuel VT, Shulman GI (2013). Saturated and unsaturated fat induce hepatic insulin resistance independently of TLR-4 signaling and ceramide synthesis *in vivo*. *PNAS* 110:12780-5.
60. **Jamison RA**, Stark R, Dong J, Yonemitsu S, Zhang D, Shulman GI, Kibbey RG (2011). Hyperglucagonemia precedes a decline in insulin secretion and causes hyperglycemia in chronically glucose-infused rats. *AJP Endo.* 301:E1174-83.
61. Gillum MP, Zhang D, Zhang X-M, Erion DM, **Jamison RA**, Choi C, Dong J, Shanabrough M, Duenas HR, Frederick DW, Hsiao JJ, Horvath TL, Lo CM, Tso P, Cline GW, Shulman GI (2008). N-acylphosphatidylethanolamine, a Gut-Derived Circulating Factor Induced by Fat Ingestion, Inhibits Food Intake. *Cell* 135:813-24.

INVITED REVIEWS AND COMMENTARIES

1. **Perry RJ***, Siebel S (2022). Automated Insulin Delivery with SGLT2i Combination Therapy in Type 1 Diabetes. *Diabetes Practice Update.* *Corresponding author.
2. **Perry RJ** (2022). Regulation of Hepatic Lipid and Glucose Metabolism by INSP3R1. *Diabetes* dbi220003.
3. Leitner BP, Siebel S, Akingbesote ND, Zhang X, **Perry RJ*** (2022). Insulin and cancer: a tangled web. *Biochem. J.* 479:583-607.
4. Plaz Torres MC, Jaffe A, **Perry R**, Marabotto E, Strazzabosco M, Giannini EG (2022). Diabetes Medications and Risk of Hepatocellular Carcinoma. *Hepatology* online ahead of print.
5. **Perry RJ** (2021). Metabolic Dysfunction–Associated Fatty Liver Disease and Cancer Risk. *Diabetes Practice Update.*
6. Konkwo C, **Perry RJ*** (2021). Imeglimin: Current Development and Future Potential in Type 2 Diabetes. *Drugs* 81:185-190.
7. Fosam A, **Perry RJ*** (2020). Current mechanisms in obesity and tumor progression. *Curr. Opin. Clin. Nutr. Metab. Care* 23:395-403. *Corresponding author.
8. **Perry RJ****, Shulman GI** (2020). Sodium glucose cotransporter-2 inhibitors: Understanding the mechanisms for therapeutic promise and persisting risks. *J. Biol. Chem.* 295:14379-14390. **Co-corresponding author.
9. **Perry RJ***, Shulman GI (2020). Mechanistic Links between Obesity, Insulin, and Cancer. *Trends in Cancer* 6:75-8. *Corresponding author.
10. **Perry RJ** (2019). Novel strategies to treat hepatic steatosis and steatohepatitis. *Obesity (Silver Spring)* 27:1385-7.
11. Goedeke L, **Perry RJ**, Shulman GI (2019). Emerging Pharmacological Targets for the Treatment of Nonalcoholic Fatty Liver Disease, Insulin Resistance, and Type 2 Diabetes. ***Annu. Rev. Pharmacol. Toxicol.*** 59:65-87.
12. **Perry RJ** (2018). Leptin revisited: The role of leptin in starvation. *Molecular & Cellular Oncology*. 5: e1435185.
13. **Perry RJ***, Shulman GI (2018). The Role of Leptin in Maintaining Plasma Glucose During Starvation. *Postdoc J.* 6:3-19. *Corresponding author
14. Caprio S, **Perry R**, Kursawe R (2017). Adolescent Obesity and Insulin Resistance: Roles of Ectopic Fat Accumulation and Adipose Inflammation. *Gastroenterology* 152:1638-1646.
15. **Perry RJ** (2017). Pleotropic Acute and Chronic Effects of Leptin to Reverse Type 1 Diabetes. *Postdoc J.* 5:3-11.
16. **Perry RJ**, Petersen KF, Shulman GI (2016). Pleotropic effects of leptin to reverse insulin resistance and diabetic ketoacidosis. *Diabetologia* 59:933-7.
17. **Perry RJ**, Samuel VT, Petersen KF, Shulman GI (2014). The role of hepatic lipids in hepatic insulin resistance and type 2 diabetes. *Nature* 510:84-91.
18. **Perry RJ**, Shulman GI (2013). Treating fatty liver and insulin resistance. *Aging (Albany, NY)* 5:791-2.

INVITED ORAL PRESENTATIONS (outside Yale):

Perry RJ. "Hepatic Glucagon Signaling: Does a New Frontier Await?" 100 Years of Glucagon meeting, Copenhagen, Denmark, 11/1/2022.

Perry RJ. Title TBD. Metabolic Diseases: Breakthrough Discoveries in Diabetes & Obesity meeting, Marysville, Victoria, Australia, 11/2022.

Perry RJ. "Metabolic Regulation of the Anti-Tumor Immune Response," Helmholtz Diabetes Conference, Munich, Germany, 9/26/2022. *I have been nominated for the Helmholz Young Investigator in Diabetes (HelDi) Award*

Perry RJ. "A MOONSHOT Approach to Generate a New Target for Renal Cell Carcinoma," University of Wisconsin, 9/15/22.

Perry RJ. "Breaking the Link between Obesity and Cancer," Keystone Symposium on Immunometabolism at the Crosswords of Obesity and Cancer, postponed due to the COVID-19 pandemic to 9/7/2022.

Perry RJ. "Rethinking the Metabolic Role of FGF-21," FASEB Scientific Meeting on Molecular Metabolism: From Cell Biology to Systems Physiology, 8/11/22.

Perry RJ. "Fill 'er Up! Satiety and Satiety Mechanisms - Putting the Heat into Obesity," ENDO 2022, 6/14/22.

Perry RJ. "Regulation of Hepatic Lipid Metabolism by INSP3RI," American Diabetes Association's 82nd Scientific Sessions," 6/4/22.

Perry RJ. "Obesity, Insulin Resistance, and Cancer: an iMOONSHOT Approach to Understand the Links," Duke Molecular Physiology Institute, 11/2/21.

Perry RJ. "An iMOONSHOT Approach to Understand the Links between Obesity, Immunometabolism, and Cancer," Connecting the Dots Conference on Diabetes and Cancer, 11/1/21. *keynote address; presented virtually due to COVID-19*

Perry RJ. "Metabolism and Cancer: Unraveling a Tangled Web," University of Virginia Division of Endocrinology & Metabolism, 9/14/21 *presented virtually due to COVID-19*

Perry RJ. "The Microbiome-Brain-β-Cell Axis in Metabolic Syndrome." American Society for Investigative Pathology Annual Meeting at Experimental Biology, 4/27/21 *presented virtually due to COVID-19*

Perry RJ. "Obesity, Insulin, and Cancer: Pathogenic Mechanisms and Therapeutic Strategies," Gordon Research Seminar, Italy *scheduled for 4/21/21, cancelled due to COVID-19*

Perry RJ. "Obesity and Cancer: Is there a Role for New Drugs or Old Tricks?" McMaster Centre for Metabolism, Obesity, and Diabetes Research, 2/18/21 *presented virtually due to COVID-19*

Perry RJ. "Mitochondrial Uncoupling by Glucagon: Implications for NAFLD and Cancer." European Calcium Symposium, 12/15/20 *presented virtually due to COVID-19*

Perry RJ. "Obesity, metabolism, and cancer (and a partridge in a pear tree): My path in science," Scripps Network for Women in Science, 12/3/20 *presented virtually due to COVID-19*

Perry RJ. "Obesity and Cancer: Can We Break the Link?" Visiting Professorship, Oregon Health & Science University, 10/29/20 *presented virtually due to COVID-19*

Perry RJ. "Obesity, Insulin Resistance and Cancer: Pathogenic Mechanisms and Emerging Therapeutic Strategies." Emerging Investigators in Metabolism series, Weill Cornell Medicine, 10/28/20 *presented virtually due to COVID-19*

Perry RJ. "Metformin: a new target for cancer care?" 63rd Annual Meeting of the Japan Diabetes Society, 10/5/20 *presented virtually due to COVID-19*

Perry RJ. "SGLT2 inhibitors and diabetic ketoacidosis: Mechanistic insights from clinical and preclinical studies." 63rd Annual Meeting of the Japan Diabetes Society, 10/5/20 *presented virtually due to COVID-19*

Perry RJ. "Mitochondrial uncoupling for NAFLD, NASH, and cancer." FASEB Mitochondrial Biogenesis and Dynamics in Health and Disease conference, 5/23/19

Perry RJ. "Acetate mediates a gut microbiome-brain-β-cell axis: Implications for obesity and cancer." Experimental Biology meeting, APS-ASPET Presidential Symposia Series: Microbiome, Gut Microbiome and Metabolic Disorders, 4/7/19

Perry RJ. "Hyperinsulinemia mediates the effect of obesity to promote tumor growth in murine breast and colon cancer." AACR Annual Meeting, 3/31/19

Perry RJ. "Leptin mediates a glucose-fatty acid cycle to maintain glucose homeostasis in starvation." Pennington Biomedical Research Center's William Hansel Visiting Scientist Seminar Series, 9/13/18

Perry RJ. "Leptin mediates a glucose-fatty acid cycle to maintain glucose homeostasis in starvation." Japan Endocrine Society, 4/26/18

Perry RJ. "Acetate, Insulin Resistance, and Colon Adenocarcinoma: Pathogenic Mechanisms and Therapeutic Strategies." AACR Special Conference on Obesity and Cancer, 1/29/18

Perry RJ. "Insulin Resistance and Colon Adenocarcinoma: Pathogenic Mechanisms and Therapeutic Strategies." Princeton Center for Translational Science Symposium: How to Get from A to B: Transitions in Biology, 12/14/17

Perry RJ. "Antidiabetic Actions of Leptin in Insulin-Deficient Animal Models." American Diabetes Association's 77th Scientific Sessions, 6/12/17

Perry RJ. "Mechanistic role of leptin in modulating hyperglycemia in poorly-controlled diabetes." Experimental Biology meeting, Leptin Beyond Appetite Regulation symposium, 4/26/17

Perry RJ. "How Our Gut Biome Fattens Us Up – And Implications for Oncology." McGill University, Stroll Cancer Prevention Centre, 10/21/16

Perry RJ. "A Controlled-Release Mitochondrial Protonophore Safely Reverses NAFLD, Insulin Resistance, Diabetes, and NASH." Kern Lipids Conference, 8/5/15

ORAL ABSTRACT PRESENTATIONS:

Perry RJ. "Leptin Mediates Postprandial Thermogenesis through a Hypothalamic-Adrenomedullary-BAT Axis." American Diabetes Association's 79th Scientific Sessions, 6/8/19.

Perry RJ. "Leptin's Hunger-Suppressing Effects Are Mediated by the Hypothalamic-Pituitary-Adrenocortical Axis." American Diabetes Association's 79th Scientific Sessions, 6/8/19.

Perry RJ. "Mechanism by Which Dapagliflozin Induces Euglycemic Ketoacidosis in Rats." American Diabetes Association's 78th Scientific Sessions, 6/25/18. **This abstract was one of eight chosen for a President's Oral Session.**

Perry RJ. "Mechanisms by Which Glucagon Acutely Stimulates Hepatic Mitochondrial Oxidation and Gluconeogenesis." American Diabetes Association's 78th Scientific Sessions, 6/23/18

Perry RJ. "Caloric Restriction Reverses Type 2 Diabetes in Rats by Pleiotropic Mechanisms." American Diabetes Association's 77th Scientific Sessions, 6/12/17

Perry RJ. "Microbiota Production of Acetate Promotes Obesity and Metabolic Syndrome in Rats by Stimulation of the Parasympathetic Nervous System." American Diabetes Association's 76th Scientific Sessions, 6/13/16

Perry RJ. "An Extended-Release Mitochondrial Protonophore Reverses NAFLD, Insulin Resistance, and Diabetes." American Diabetes Association's 74th Scientific Sessions, 6/13/14

PATENTS:

Shulman GI and **Perry RJ**. "Novel 2,4-dinitrophenol formulations and methods using same." Patent US20160199310A1, issued 7/14/16.

Shulman GI, **Perry RJ**, Petersen KF, Rothman DL, Cline GW. "Non-Invasive Assessment of Hepatic Mitochondrial Metabolism by Positional Isotopomer NMR Tracer Analysis (PINTA)." Provisional patent application filed 1/3/18.

ACADEMIC SERVICE (outside Yale):

2021-2025	Standing Member, VA-ENDA Scientific Review Group
2021-present	Scientific Editor, *Cancer & Metabolism*
2020, 2022	*Ad hoc* member, NIH SPORE Scientific Review Group
2020, 2021	*Ad hoc* member, VA-ENDA Scientific Review Group
2020	*Ad hoc* member, NIH CMIB Scientific Review Group
2019-present	Scientific Editor, *Scientific Reports*

RESEARCH SUPPORT:

Active:

PI	R37 CA258261: "Defining the Role of Renal Gluconeogenesis in Renal Cell Carcinoma," 1/22-12/28.
MPI (contact, with A. Wang)	JDRF Innovation Award: "GDF15: A New Hypoglycemia Counterregulatory Factor," 3/22-2/23.
PI	Melanoma Research Alliance Young Investigator Award: "Mitochondrial Uncoupling: A New Therapeutic Approach to Melanoma," 6/21-5/24
PI	Yale Pepper Center Pilot: "Improving the Tolerability and Efficacy of Allogenic Hematopoietic Stem Cell Transplant by Metabolic Modulation in Mice," 7/21-6/22
PI	Yale Cancer Center Pilot: "Targeting Hyperinsulinemia in Breast Cancer," 8/21-7/22
MPI (contact, with N. Akingbesote)	Yale Women Faculty Forum Seed Grant: "Systemic Immunometabolism and Breast Cancer," 11/21-9/22
PI	Yale SPORE in Lung Cancer Career Enhancement Program: "Defining the Mechanism by which Obesity May Protect Against Lung Cancer," 8/20-7/22
Co-I (PI: J. Bogan)	R01 DK129466: "Vesicle Translocation and the Metabolic Syndrome," 4/22-2/26
Co-I (PI: A. Wang)	R01 AR080104: "The Role of the Adrb3/IL6 Axis in the Impact of Psychosocial Stress on Lupus Pathogenesis," 2/22-12/26
Co-I (MPI: Herold/ Shulman)	P30 DK045735: "Yale Diabetes Research Center Physiology Core," 5/19-4/24

Completed:

PI	K99/R00 CA215315: "Regulation of tumor growth and metabolism by hyperinsulinemia," 3/17-7/21
PI	Lion Heart Pilot grant: "Exploring Complementary Insulin-Lowering Agents as Adjuvants to Chemotherapy," 1/20-6/21
PI	Yale SPORE in Skin Cancer Career Enhancement Program: "Impact of Mitochondrial Uncoupling on Immunometabolism in Metastatic Melanoma," 11/19-8/20
PI	Yale Diabetes Research Center Pilot: "Therapeutic Utility of Insulin-Lowering Agents for Obesity-Driven Breast Cancer," 2/19-1/20
PI	AstraZeneca investigator-initiated award: "Mechanism by which Dapagliflozin Induces Euglycemic Ketoacidosis in Rats," 9/18-8/19
PI	Yale Cancer Innovation Award: "Prevention of Colon Adenocarcinoma by Liver-Targeted Mitochondrial Uncoupling," 11/18-10/19
PI	Yale SPORE in Skin Cancer Career Enhancement Program: "Impact of Mitochondrial Uncoupling on Tumor Growth and Immune Cell Substrate Preference in Melanoma," 11/18-8/19
Co-I	Yale Diabetes Research Center Pilot: "Defining the Role of GDF15 in Hypoglycemia Counterregulation," 2/20-1/22
Co-PI	MICROMouse Grant (subcontract from Augusta University): "Developing a stable isotope tracer method to measure key hepatic fluxes in mice," 1/17-12/17
Trainee	T32DK101019: "Yale Interdisciplinary Bioengineering Training Grant for Diabetes Research," 1/14-12/16