

UNIVERSITY OF PENNSYLVANIA - PERELMAN SCHOOL OF MEDICINE
Curriculum Vitae

Date: 02/06/2024

Paul M. Titchenell, Ph.D.

Address: Institute for Diabetes, Obesity, and Metabolism
Smilow Center for Translational Research
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Philadelphia, PA 19104 United States of America

If you are not a U.S. citizen or holder of a permanent visa, please indicate the type of visa you have:
none (U.S. citizen)

Education:

2008	B.S.	Dickinson College (Biochemistry and Molecular Biology)
2013	Ph.D.	Pennsylvania State University (Physiology)

Postgraduate Training and Fellowship Appointments:

2013-2016	Postdoctorate Fellow, Institute for Diabetes, Obesity, and Metabolism, Department of Medicine, University of Pennsylvania School of Medicine
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Faculty Appointments:

2016-2017	Research Associate, Institute for Diabetes, Obesity, and Metabolism, Department of Medicine, University of Pennsylvania School of Medicine
2017-2023	Assistant Professor of Physiology, University of Pennsylvania School of Medicine
2023-present	Associate Professor of Physiology, University of Pennsylvania School of Medicine

Hospital and/or Administrative Appointments:

2017-present	Director, Social Media and Scientific Outreach, Institute for Diabetes, Obesity and Metabolism, University of Pennsylvania
2021-present	Co-Director, Academic Enrichment Program, Diabetes Research Center, University of Pennsylvania
2021-present	Assistant Director, Trainee Recruitment, Inclusivity, Diversity, Equity, and Learner (IDEAL) Research, University of Pennsylvania
2022-present	Co-Director, Summer Undergraduate Internship Program (SUIP), Inclusivity, Diversity, Equity, and Learner (IDEAL) Research, University of Pennsylvania
2022-present	Associate Director, Rodent Metabolic Phenotyping Core, Institute for Diabetes, Obesity and Metabolism, University of Pennsylvania

Other Appointments:

2017-present	Member, Cell and Molecular Biology Graduate Group, University of Pennsylvania
2017-present	Member, Biochemistry and Molecular Biophysics Graduate Group, University of Pennsylvania
2022-present	Member, Pharmacology Graduate Group, University of Pennsylvania

Awards, Honors and Membership in Honorary Societies:

2005-2007	Centennial Conference Academic Honor Roll, Dickinson College
2007	Summer Undergraduate Research Fellowship, Drexel University
2008	National Football Foundation Hampshire Academic Honor Society, Dickinson College
2008	John E. Benson Handbook Award, Dickinson College
2011	Huck Institute Scholarship, Pennsylvania State University
2011	Patrick G. Quinn Award for Most Outstanding Ph.D. student, Pennsylvania State University
2011	Morgan Travel Award, Pennsylvania State University
2011	Class of 1974 Endowed Alumni Scholarship, Pennsylvania State College of Medicine
2012	Poster Showcase-Diabetic Retinopathy-Bench to Bedside, ADA 72nd Scientific Sessions, Philadelphia, PA
2012	Keystone Symposia Scholarship (NIDDK/NIA), Complications of Diabetes, Boston, MA
2012	Class of 1971 Endowed Alumni Scholarship, Pennsylvania State College of Medicine
2012	Top Poster Presentation Award Pennsylvania State Institute for Diabetes and Obesity Symposia
2013	D. Eugene Rannel's Award for Outstanding Doctoral Dissertation, Pennsylvania State University
2013-2016	NIH NIDDK Ruth L. Kirschstein National Research Service Individual Postdoctoral Fellowship Award
2013	Dean's Award for Scholarly Excellence, Pennsylvania State University
2013	Inventor Incentive Award, The Pennsylvania State University Research Foundation
2015	Keystone Symposia Scholarship (NIDDK), J6 Diabetes and Metabolic Dysfunction, Santa Fe, NM
2015	Rising Star in Metabolism and Diabetes University of Utah, Salt Lake City, UT
2016-2020	NIH NIDDK Research Scientist Career Development Award
2018-2019	McCabe Fellow Award, University of Pennsylvania
2021	Top Reviewer, Cellular and Molecular Gastroenterology and

	Hepatology
2021	New Investigator Award, American Physiological Society Endocrinology and Metabolism Section

Memberships in Professional and Scientific Societies and Other Professional Activities:

International:

2013-present	American Diabetes Association (Scientific Sessions Abstract Reviewer 2018-Present)
2022	Ad hoc Reviewer, Medical Research Council (MRC), UK Research and Innovation
2022-Present	Endocrine Society

National:

2017-Present	Reviewer, CDMRP grant program- Diabetes Study Section
2018-Present	American Physiological Society
2020	Ad hoc Reviewer, Integrative Physiology of Obesity and Diabetes Study Section, National Institutes of Health
2020	Ad hoc Reviewer, Molecular and Cellular Endocrinology Study Section, National Institutes of Health
2020	Ad hoc Reviewer, Stanford Diabetes Research Center Pilot and Feasibility Award
2021	Ad hoc Reviewer, Nutrition and Metabolism in Health and Disease Study Section, National Institutes of Health
2021	Ad hoc Reviewer, Pathophysiology of Obesity and Metabolic Disease Study Section, National Institutes of Health
2021	Ad hoc Reviewer, Washington University Diabetes Research Center Pilot and Feasibility Award
2021-Present	Advisory Committee Member, Mouse Diabetes Clinic, Vanderbilt University
2021	Consultant, Alnylam Pharmaceuticals
2022	Ad hoc Reviewer, Pathophysiology of Obesity and Metabolic Disease Study Section, National Institutes of Health
2022-2023	Ad hoc reviewer, ENDO study section, Veteran's Affairs
2022-Present	American Gastroenterological Association
2023	Reviewer, Special Emphasis Panel: Topics in Hepatology and Environmental

Toxicology, National Institutes of Health

2023-Present Standing member reviewer, ENDO study section, Veteran's Affairs

Local:

2017-Present Member, Center for Molecular Studies in Digestive and Liver Disease, University of Pennsylvania (Co-lead, Liver Biology Group 2022-pres)

2017-Present Member, Institute for Translational Medicine and Therapeutics, University of Pennsylvania

2017-Present Member, Pennsylvania Muscle Institute, University of Pennsylvania

2018-Present Member, Cardiovascular Institute, University of Pennsylvania

2019-Present Member, Penn Center for Musculoskeletal Disorders, University of Pennsylvania

Editorial Positions:

2013-Present Ad-hoc reviewer, American Journal of Physiology-Endocrinology and Metabolism

2013-Present Ad-hoc reviewer, Diabetes

2017-Present Ad hoc reviewer, Nature Communications

2017-Present Ad-hoc reviewer, BBA Molecular Basis of Disease

2017-Present Ad hoc reviewer, Genes and Development

2017-Present Ad hoc reviewer, Endocrine Reviews

2017-Present Ad hoc reviewer, Cell Reports

2018-Present Ad hoc reviewer, Nature Metabolism

2018-Present Ad hoc reviewer, Plos Biology

2018-Present Ad hoc reviewer, Cell Metabolism

2018-Present Ad hoc reviewer, Cell Systems

2018-Present Ad hoc reviewer, Journal of Clinical Investigation

2018-Present Ad hoc reviewer, JCI Insight

2019-Present Ad hoc reviewer, Trends in Endocrinology and Metabolism

2019-Present Ad hoc reviewer, Molecular Metabolism

2019-Present Ad hoc reviewer, Nature Medicine

2019-Present Ad hoc reviewer, Cellular and Molecular Gastroenterology and Hepatology

2019-Present Academic Editor, Plos Biology

2020-Present Ad hoc reviewer, Nature Reviews Endocrinology

2020-Present Ad hoc reviewer, Science

2020-Present Ad hoc reviewer, Plos Genetics

2021-Present Editorial Board, Cellular and Molecular Gastroenterology and Hepatology

2021-Present Ad hoc reviewer, Science Translational Medicine

2022-Present Editorial Board, Diabetes

2022-Present Ad hoc reviewer, eLife

Academic and Institutional Committees:

2017-2023	Member, Richard's Society Steering Committee
2018-2021	Member, Admissions Committee CPM program, CAMB graduate group
2018-2020	Member, Thesis Committee, Lauren Paoella (Joseph Baur Laboratory)
2018-2021	Member, Thesis Committee, Bridget Gosis (Zolt Arany Laboratory)
2019-2021	Member, Advisory Committee (K award), Timothy Luongo (Joseph Baur Laboratory)
2019-2023	Member, Thesis Committee, Ioana Soaita (Zolt Arany Laboratory)
2019-2022	Member, Thesis Committee, Varun Bahl (Klaus Kaestner Laboratory)
2020-2021	Chair, Prelim Exam Advisory Committee CPM program, CAMB graduate group
2020-Present	Member, Thesis Committee, Caroline Perry (Joseph Baur Laboratory)
2020-2023	Member, Thesis Committee, Megan Blair (Zolt Arany Laboratory)
2020-Present	Chair, Thesis Committee, Michael Noji (Kathryn Wellen/Zoltan Arany Laboratories)
2020-2023	Member, Thesis Committee, Marc Bornstein (Zolt Arany Laboratory)
2020-2021	Co-chair, Admissions Committee CPM program, CAMB graduate group
2021-Present	Member, Thesis Committee, Eric Waite (Klaus Kaestner Laboratory)
2021-2022	Member, Thesis Committee, Hannah Richter (Mitchell Lazar Laboratory)
2021-2022	Member, Department of Physiology Faculty Search Committee
2021-Present	Chair, Thesis Committee, Nathan Coffey (Celeste Simon/Zoltan Arany Laboratories)
2021-Present	Member, Thesis Committee, Chelsea Thorsheim (Zolt Arany Laboratory)
2021-2022	Member, Diversity Trainee Admissions Committee, CAMB graduate group
2022-Present	Member, Fellowship Review Committee, Biomedical Postdoctoral Program
2022-Present	Member, Thesis Committee, Andrea Andress (Trevor Penning Laboratory)
2022-Present	Member, Thesis Committee, Mary Anna Hazuga (Ben Voight and Struan Grant laboratories)
2022-2023	Chair, Department of Physiology Faculty Search Committee
2023-Present	Member, PennPREP Advisory Committee
2023-Present	Member, Thesis Committee, Sarah Applebey (Matthew Hayes Laboratory)

2023-Present	Member, Standing Department of Physiology Search Committee
2023-Present	Chair, Thesis Committee, Natalie Moore (David Merrick laboratory)
2023-Present	Member, Thesis Committee, Kristina Li (Zolt Arany Laboratory)

Major Academic and Clinical Teaching Responsibilities:

2015	Seminar, "The Paradox of Selective Insulin Resistance in Liver" Institute for Diabetes, Obesity, and Metabolism Seminar Series, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2016-2019	Mentoring, Rebecca Gelfer (Undergraduate, Independent Study, Vagelos Life Scholars Program)
2016	Seminar, "Unraveling the Paradox of Selective Insulin Resistance in Liver" Institute for Diabetes, Obesity, and Metabolism Seminar Series, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2017-Present	Faculty expert, CAMB 692 Section on "insulin signaling", 1 lecture (1.5 h)
2017-Present	Prelim Exam Member, CAMB graduate group
2017	Mentoring, Kiva Sewell (undergraduate)
2017-2018	Discussion Leader (Faculty expert), CAMB 605 (CPM section) 4 sections (2h/section)
2017-Present	Lecturer, CAMB 532 Human Physiology 3 sections (1.5 h /lecture)
2017	Seminar, "Metabolic Signaling and the Regulation of Hepatic Metabolism" Institute for Diabetes, Obesity, and Metabolism Seminar Series, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2017	Seminar, "Glucose Signaling and Hepatic Metabolism" Cancer Cell Metabolism Program, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2017-2019	Mentoring, Brennan Rose (Undergraduate Work Study)
2017-Present	Mentoring, Kahealani Uehara (BMB PhD student)
2017	Seminar, "Unraveling the Regulation of Metabolism by Insulin" Department of Physiology "On the Road" Seminar Series, University of Pennsylvania, Philadelphia, PA
2018-Present	Lecturer, BMB 509 Structural and Mechanistic Biochemistry 1 lecture (1.5 h)
2018-Present	Mentoring, Jaimarie Sostre (CAMB PhD student)
2018-Present	Co-director, CAMB 532 Human Physiology
2018	Seminar, "Unraveling the Regulation of Hepatic Metabolism by Insulin" Friday Research Discussion, Biochemistry Department, University of Pennsylvania
2018-Present	Mentoring, Dominic Santoleri (BMB PhD student)
2018	Mentoring, Nicole Rivera Fuentes (Undergraduate, SUIP)
2018-Present	Mentoring, Anna Garcia Whitlock (CAMB PhD student)
2018	Seminar, "Role of Hepatic mTORC1 Signaling in Fatty Liver Disease" Biochemistry and Molecular Biophysics Retreat, Perelman

	School of Medicine, University of Pennsylvania, Philadelphia, PA
2018-2019	Advisor, Mindy Hugo (PennPREP)
2018-present	Faculty expert, CAMB 704 Section on "Organismal Metabolism in Cancer and Stress", 1 lecture (1.5 h)
2018-Present	Mentoring, Natasha Jaiswal (Postdoctoral Researcher)
2019-2020	Mentoring, Lulu Schmitt (Undergraduate)
2020	Seminar, "Regulation of Muscle Metabolism by Insulin Signaling" Institute for Diabetes, Obesity, and Metabolism Seminar Series, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2020	Mentor, Jessica Rico American Physician Scientists Association Summer Research Program
2021	Mentoring, Patricia Guadalupe (Undergraduate, SUIP)
2021-2022	Mentoring, Jennifer Guo (Undergraduate, Penn major biochemistry)
2021-Present	Mentoring, Megan Stefkovich (CAMB PhD student)
2021-Present	Mentoring, Jaclyn Welles (Penn Provost Postdoctoral Fellow)
2021	Seminar, "Just Live(r) Little: Role of Hepatic Insulin Signaling in Metabolic Homeostasis" Friday Research Discussion, Biochemistry Department, University of Pennsylvania
2021	Seminar, Grant Writing Workshop for IDOM Student Interest Group
2021	Mentoring, Kay Kitada (CAMB PhD rotation student)
2022-Present	Mentoring, Olivia Ong (Penn undergraduate)
2022	Mentoring, Natalie Moore (CAMB PhD rotation student)
2022	Mentoring, Nicole Fano Brito (PennPREP scholar)
2022-Present	Mentoring, Talia Coopersmith (Penn undergraduate-PURM)
2023	Seminar, "Defining a new role of hepatic mTORC1 in glycogen metabolism" Institute for Diabetes, Obesity, and Metabolism, Spring Symposium Diabetes Research Center, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
2023	"Redefining the Role of AKT Signaling in Muscle Growth and Metabolism", Cardiovascular Institute, University of Pennsylvania
2023	"Using mouse models to identify novel anti-obesity approaches: Targeting activin type II receptors to improve weight loss quality with GLP-1 receptor agonist" Obesity Symposium, University of Pennsylvania
2023	"Targeting activin type II receptors to improve weight loss quality with GLP-1 receptor agonist" CPM Retreat (Student Selected)

Lectures by Invitation:

Jun, 2014	"Insulin Regulates Glucose Metabolism Independent of Hepatic Insulin or Glucagon Signaling" ADA 74th Scientific Sessions, San Francisco, CA
Jan, 2016	"Insulin Regulation of Hepatic Metabolism" Department of Cellular and Molecular Physiology Department Seminar, Penn State University, Hershey, PA
Oct, 2016	"Unraveling the Paradox of Selective Insulin Resistance in Liver"

	Endocrinology Grand Rounds, Johns Hopkins University, Baltimore, MD
Dec, 2016	"Unraveling the Paradox of Selective Insulin Resistance in Liver"
	Center for Metabolic Research, Temple University, Philadelphia, PA
May, 2017	"The Regulation of Hepatic Phospholipids by mTORC1", Navigating Lipid Research in Baltimore, Johns Hopkins University, Baltimore, MD
Oct, 2018	"Regulation of Hepatic Metabolism by Insulin", Drexel University, Philadelphia PA
Dec, 2018	"Regulation of Hepatic Metabolism by Insulin", Vanderbilt University, Nashville TN
Feb, 2019	"Regulation of Hepatic Metabolism by Insulin", University of Wisconsin, Madison, WI
Jun, 2019	"Regulation of Hepatic Lipid Metabolism Downstream of mTORC1" ADA 79th Scientific Sessions, San Francisco, CA
Jan, 2020	"Regulation of Muscle Metabolism and Growth by AKT", Pfizer Inc, Cambridge, MA
Jan, 2020	"Regulation of Glucose Metabolism and Growth by AKT", Keystone Symposia Diabetes: Glucose Control and Beyond, Santa Fe, NM
Feb, 2020	"Regulation of Hepatic Metabolism by Insulin", Eli Lilly, Indianapolis, IN
Mar, 2020	"Regulation of Muscle Metabolism and Growth by AKT", Metabolic Physiology in Isolation Duke Molecular Physiology Institute, Duke University, Virtual due to COVID-19 pandemic
Jun, 2020	"Regulation of Liver Lipid Metabolism by mTORC1" Metabolic Control of GI Biology: NIH Center for Molecular Studies in Digestive and Liver Diseases, Philadelphia PA, Virtual due to COVID-19 pandemic
Oct, 2020	"Regulation of Lipid Metabolism by Hepatic mTORC1" University of Missouri Medical Center, Virtual due to COVID-19 pandemic
Oct, 2020	"Regulation of Muscle Metabolism by Insulin Signaling", DRC Directors Annual Meeting, NIH-NIDDK, Virtual due to COVID-19 pandemic
Apr, 2021	"Liver Insulin Action and Lipid Metabolism", Experimental Biology 2021, APS Award Lecture Honoree, Virtual due to COVID-19 pandemic
Jun, 2021	"Liver Insulin Action and Lipid Metabolism", Utah Diabetes Research Center, University of Utah, Virtual due to COVID-19 pandemic
Sep, 2021	"Control of Hepatic Lipid Metabolism and Fatty Liver by Insulin Signaling", AstraZeneca, Virtual due to COVID-19 pandemic
Oct, 2021	"Control of Hepatic Lipid Metabolism and Fatty Liver by Insulin Signaling", Stanford University, Virtual due to COVID-19 pandemic
Nov, 2021	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", Yale University, New Haven CT

Feb, 2022	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", Columbia University, Virtual due to COVID-19 pandemic
Mar, 2022	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", University of Minnesota. Virtual due to COVID-19 pandemic
Apr, 2022	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", University of Virginia, Charlottesville, Virginia
Apr, 2022	"Control of Glucose Metabolism and Insulin Sensitivity by Hepatic FOXOs", Experimental Biology 2022, Philadelphia, PA
May, 2022	"Regulation of Muscle Metabolism and Physiology by AKT Signaling", Molecular Physiology Institute, Duke University, Durham, NC
Aug, 2022	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", FASEB: Molecular Metabolism, Nova Scotia, CA
Sep, 2022	"Insulin Signaling and Hepatic Metabolism", Eli Lilly and Co., Cambridge, MA
Sep, 2022	"Control of Hepatic Lipid Metabolism by mTORC1-Phosphatidylcholine Biosynthesis", 2022 Mid-Atlantic Diabetes and Obesity Research Symposium, Bethesda, MD
Oct, 2022	"Anabolic Signals that Control Muscle Mass", Dickinson College, Carlisle, PA
Nov, 2022	"Regulation of Muscle Metabolism and Physiology by AKT Signaling", Diabetes Research Center, University of Michigan, Ann Arbor, MI
Dec, 2022	"Control of Hepatic Lipid Metabolism by a mTORC1-Phosphatidylcholine Axis", Molecular and Cellular Biology of Lipids Group, University of Alberta, Edmonton, CA
Mar, 2023	"Hepatic Insulin Signaling and Metabolism: Navigating Downstream of AKT", University of Iowa, Iowa City, IA
Apr, 2023	"Regulation of Muscle Glucose Metabolism by AKT Signaling", American Physiology Summit, Long Beach, CA
May, 2023	"Regulation of Muscle Metabolism by Insulin Signaling", METPHYS 2023, Hilton Head, NC
Jun, 2023	"Regulation of Muscle Metabolism and Oxidative Capacity by Insulin Signaling", 83rd Scientific Sessions, American Diabetes Association, San Diego, CA
Sep, 2023	"Redefining the Role of AKT Signaling in Muscle Growth and Metabolism", Knowledge Portal Network Webinar, NIH (Virtual)
Oct, 2023	"Regulation of Muscle Metabolism by Insulin Signaling", Regeneron Pharmaceuticals, Tarrytown NY

Organizing Roles in Scientific Meetings:

Jun, 2019	Sub-committee Member, ADA Scientific Sessions Insulin
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	Action/Molecular Metabolism San Francisco, CA
2022	Advisory Panel Member, NIH-NIDDK Diabetes Research Centers Virtual Seminar Series Virtual
Jan, 2023	Moderator, Circadian Control of Metabolism, Keystone Symposia Keystone, CO
Apr, 2023	Session Chair, American Physiology Summit 2023 Long Beach, CA
Jun, 2023	Sub-committee Member, ADA Scientific Sessions Insulin Action/Molecular Metabolism San Diego, CA
2023	Advisory Panel Member, NIH-NIDDK Diabetes Research Centers Virtual Seminar Series Virtual
Jul, 2024	Planning Committee Member, ADA Scientific Sessions Orlando, FL

Grants:Current:

University Of Pennsylvania Diabetes Research Center, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs, 4/2022-3/2027 (MITCHELL A. LAZAR, PI), \$1,112,990/annual direct costs, 2% effort (Role in grant: Co-PI, Role in grant: Co-PI, Co-Director, Academic Enrichment Program)

Stem cell tools for interrogating T2D effector gene function and benchmarking T2D relevant phenotypes, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs , 12/2021-11/2023 (Wenli Yang, Paul Titchenell, Klaus Kaestner, PI), \$118,000/annual direct costs (Role in grant: Co-PI, No salary is requested. This is an opportunity pool funded project and a portion of the funds will be used to support a research technician and supplies in my laboratory.)

Regulation Of Hepatic Phosphatidylcholine Synthesis By Mtorc1, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs, F31DK128876, 4/2021-4/2024 (Kahealani Uehara, PI), \$34,329/annual direct costs (Role in grant: Co-PI, Provide mentorship and advising. Ms. Kahealani Uehara is a PhD candidate in my laboratory and this fellowship will partially support her training under my direction. Research supplies are supported by my R01 award: R01DK125497)

Hepatic mTORC1 Signaling and the Regulation of Lipid Homeostasis, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs , R01DK125497, 3/2021-1/2025 (Paul M. Titchenell, PI), \$268,526/annual direct costs, 30% effort (Role in grant: PI)

Functional Interrogation Of T2d-Associated Genes In Human Stem Cell-Derived Models And Mice, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs,

UM1DK126194, 8/2020-6/2025 (Patrick Seale, PI), \$1,178,066/annual direct costs, 10% effort (Role in grant: Co-I, Receive 100,000 per year (total cost) for my laboratory. My laboratory is responsible for leading efforts in liver and muscle assay development and candidate gene validation.)

Regulation Of Skeletal Muscle Metabolism By Insulin Signaling, National Institute Of Diabetes And Digestive And Kidney Diseases/Nih/Dhhs, R01DK123252, 3/2020-1/2025 (Paul M Titchenell, PI), \$250,000/annual direct costs, 30% effort (Role in grant: PI, Year 2/3 include additional funding for a Diversity supplement to parent R01 award to support a postdoctoral fellow in my laboratory (Dr. Jaclyn Welles). Total cost for the diversity supplement is an additional \$115,628 (\$71,247 direct costs)/per year.)

Bibliography:

Research Publications, peer reviewed (print or other media):

1. Smollock EM, Trappanese DM, Chang S, Wang T, Titchenell P, Moreland RS.: siRNA-mediated knockdown of h-caldesmon in vascular smooth muscle. Am J Physiol Heart Circ Physiol 297: 1930-9, Nov 2009. PMCID: PMC2781382
2. Titchenell PM, Lin CM, Keil JM, Sundstrom JM, Smith CD, Antonetti DA.: Novel atypical PKC inhibitors prevent vascular endothelial growth factor-induced blood-retinal barrier dysfunction. Biochem J 446: 455-67, Sep 2012. PMCID: PMC3767384
3. Titchenell PM, Showalter HD, Pons JF, Barber AJ, Jin Y, Antonetti DA.: Synthesis and structure-activity relationships of 2-amino-3-carboxy-4-phenylthiophenes as novel atypical protein kinase C inhibitors. Bioorg Med Chem Lett 23: 3034-8, May 2013. PMCID: PMC3634901
4. Cannon CE, Titchenell PM, Groff DN, El Ouaamari A, Kulkarni RN, Birnbaum MJ, Stoffers DA.: The Polycomb protein, Bmi1, regulates insulin sensitivity. Mol Metab 3: 794-802, Aug 2014. PMCID: PMC4216405
5. Patel K, Foretz M, Marion A, Campbell DG, Gurlay R, Boudaba N, Tournier E, Titchenell P, Pegg M, Deak M, Wan M, Kaestner KH, Göransson O, Viollet B, Gray NS, Birnbaum MJ, Sutherland C, Sakamoto K.: The LKB1-salt-inducible kinase pathway functions as a key gluconeogenic suppressor in the liver. Nat Commun 5: 4535, Aug 2014. PMCID: PMC4143937
6. Perry RJ, Camporez JG, Kursawe R, Titchenell PM, Zhang D, Perry CJ, Jurczak MJ, Abudukadier A, Han MS, Zhang XM, Ruan HB, Yang X, Caprio S, Kaech SM, Sul HS, Birnbaum MJ, Davis RJ, Cline GW, Petersen KF, Shulman GL.: Hepatic acetyl CoA links adipose tissue inflammation to hepatic insulin resistance and type 2 diabetes. Cell 160: 745-758, Feb 2015. PMCID: PMC4498261

7. Titchenell PM, Chu Q, Monks BR, Birnbaum MJ.: Hepatic insulin signalling is dispensable for suppression of glucose output by insulin in vivo. Nat Commun 6: 7078, May 2015. PMCID: PMC4429930
8. Titchenell PM, Quinn WJ, Lu M, Chu Q, Lu W, Li C, Chen H, Monks BR, Chen J, Rabinowitz JD, Birnbaum MJ.: Direct Hepatocyte Insulin Signaling Is Required for Lipogenesis but Is Dispensable for the Suppression of Glucose Production. Cell Metab 23: 1154-1166, Jun 2016. PMCID: PMC4909537
9. Jang H, Lee GY, Selby CP, Lee G, Jeon YG, Lee JH, Cheng KK, Titchenell P, Birnbaum MJ, Xu A, Sancar A, Kim JB.: SREBP1c-CRY1 signalling represses hepatic glucose production by promoting FOXO1 degradation during refeeding. Nat Commun 7: 12180, Jul 2016. PMCID: PMC4947181
10. Papazyan R, Sun Z, Kim YH, Titchenell PM, Hill DA, Lu W, Damle M, Wan M, Zhang Y, Briggs ER, Rabinowitz JD, Lazar MA.: Physiological Suppression of Lipotoxic Liver Damage by Complementary Actions of HDAC3 and SCAP/SREBP. Cell Metab 24: 863-874, Dec 2016. PMCID: PMC5159233
11. Quinn WJ 3rd, Wan M, Shewale SV, Gelfer R, Rader DJ, Birnbaum MJ, Titchenell PM.: mTORC1 stimulates phosphatidylcholine synthesis to promote triglyceride secretion. J Clin Invest 127: 4207-4215, Nov 2017. PMCID: PMC5663357
12. Lin CM, Titchenell PM, Keil JM, Garcia-Ocaña A, Bolinger MT, Abcouwer SF, Antonetti DA.: Inhibition of Atypical Protein Kinase C Reduces Inflammation-Induced Retinal Vascular Permeability. Am J Pathol 188: 2392-2405, Oct 2018. PMCID: PMC6180272
13. Ahn B, Wan S, Jaiswal N, Vega RB, Ayer DE, Titchenell PM, Han X, Won KJ, Kelly DP.: MondoA drives muscle lipid accumulation and insulin resistance. JCI Insight 5: e129119, Jul 2019. PMCID: PMC6693825
14. Jaiswal N, Gavin MG, Quinn WJ 3rd, Luongo TS, Gelfer RG, Baur JA, Titchenell PM.: The role of skeletal muscle Akt in the regulation of muscle mass and glucose homeostasis. Mol Metab 28: 1-13, Oct 2019. PMCID: PMC6822261
15. Angueira AR, Shapira SN, Ishibashi J, Sampat S, Sostre-Colón J, Emmett MJ, Titchenell PM, Lazar MA, Lim HW, Seale P.: Early B Cell Factor Activity Controls Developmental and Adaptive Thermogenic Gene Programming in Adipocytes. Cell Rep 30: 2869-2878, Mar 2020. PMCID: PMC7079313
16. Shen Y, Su Y, Silva FJ, Weller AH, Sostre-Colón J, Titchenell PM, Steger DJ, Seale P, Soccio RE.: Shared PPAR α/γ Target Genes Regulate Brown Adipocyte Thermogenic Function. Cell Rep 30: 3079-3091, Mar 2020. PMCID: in progress
17. Zhao S, Jang C, Liu J, Uehara K, Gilbert M, Izzo L, Zeng X, Trefely S, Fernandez S,

- Carrer A, Miller KD, Schug ZT, Snyder NW, Gade TP, Titchenell PM, Rabinowitz JD, Wellen KE.: Dietary fructose feeds hepatic lipogenesis via microbiota-derived acetate. Nature 579: 586-591, Mar 2020. PMCID: PMC7416516
18. Sostre-Colón J, Uehara K, Garcia Whitlock AE, Gavin MJ, Ishibashi J, Potthoff MJ, Seale P, Titchenell PM.: Hepatic AKT orchestrates adipose tissue thermogenesis via FGF21-dependent and -independent mechanisms. Cell Rep 35: 109128, May 2021. PMCID: PMC8167823
19. Garcia Whitlock AE, Sostre-Colón J, Gavin M, Martin ND, Baur JA, Sims CA, Titchenell PM.: Loss of FOXO transcription factors in the liver mitigates stress-induced hyperglycemia. Mol Metab 51: 101246, Sep 2021. PMCID: PMC8175408
20. Jaiswal N, Gavin M, Loro E, Sostre-Colón J, Roberson PA, Uehara K, Rivera-Fuentes N, Neinast M, Arany Z, Kimball SR, Khurana TS, Titchenell PM.: AKT controls protein synthesis and oxidative metabolism via combined mTORC1 and FOXO1 signalling to govern muscle physiology. J Cachexia Sarcopenia Muscle 13(1495-514), Feb 2022. PMCID: PMC8818654
21. Uehara K, Sostre-Colón J, Gavin M, Santoleri D, Leonard KA, Jacobs RL, Titchenell PM.: Activation of Liver mTORC1 Protects Against NASH via Dual Regulation of VLDL-TAG Secretion and De Novo Lipogenesis. Cell Mol Gastroenterol Hepatol 13: 1625-1647, Feb 2022. PMCID: PMC9046248
22. Gosis BS, Wada S, Thorsheim C, Li K, Jung S, Rhoades JH, Yang Y, Brandimarto J, Li L, Uehara K, Jang C, Lanza M, Sanford NB, Bornstein MR, Jeong S, Titchenell PM, Biddinger SB, Arany Z.: Inhibition of nonalcoholic fatty liver disease in mice by selective inhibition of mTORC1. Science 376: eabf8271, Apr 2022. PMCID: PMC9811404
23. Santoleri D, Lim HW, Emmett MJ, Stoute J, Gavin MJ, Sostre-Colón J, Uehara K, Welles JE, Liu KF, Lazar MA, Titchenell PM.: Global-run on sequencing identifies Gm11967 as an Akt-dependent long noncoding RNA involved in insulin sensitivity. iScience 25: 104410, May 2022. PMCID: PMC9156944
24. Sostre-Colón J, Gavin MJ, Santoleri D, Titchenell PM.: Acute Deletion of the FOXO1-dependent Hepatokine FGF21 Does not Alter Basal Glucose Homeostasis or Lipolysis in Mice. Endocrinology 163: bqac035, May 2022. PMCID: PMC8995092
25. Buyco DG, Dempsey JL, Scorletti E, Jeon S, Lin C, Harkin J, Bayen S, Furth EE, Martin J, Delima M, Hooks R, Sostre-Colón J, Gharib SA, Titchenell PM, Carr RM.: Concomitant western diet and chronic-binge alcohol dysregulate hepatic metabolism. PLoS One 18: e0281954, May 2023. PMCID: PMC10155975

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