



MORGRIDGE | UW-MADISON
METABOLISM SYMPOSIUM



Wednesday, May 1st
Discovery Building
Madison, Wisconsin

CONFERENCE AGENDA

Sessions are held at DeLuca Forum		■ = Event located in Main Court
TIME	ACTIVITY	
7:30 am	Poster Set-up, Coffee, and Breakfast	
8:00 am	Welcome and Introduction - Dave Pagliarini	
8:10 - 9:25 am	Research Talks - Morning Session I	Chair: Cara Westmark
8:10 am	Jason Cantor Investigator, Morgridge Institute for Research; Assistant Professor, Biochemistry "Use of physiologic media to explore cancer cell liabilities"	
8:30 am	Melissa Skala Investigator, Morgridge Institute for Research; Associate Professor, Biomedical Engineering "Redox imaging of the cell cycle"	
8:50 am	Jose Maria Ayuso Dominguez Morgridge Postdoctoral Fellow, Medical Engineering	
9:10 am	Aaron Simmons Graduate Research Assistant, Chemical and Biological Engineering "Developing methods for the scalable monitoring and maturation of induced pluripotent stem cell-derived cardiomyocytes (iPSC-CMs)"	
9:25 - 10:30 am	Coffee Break and Poster Session (Odd Numbered Posters)	
10:30 - 11:45 am	Research Talks - Morning Session II	Chair: Jason Cantor
10:30 am	Dawn Davis Associate Professor of Medicine - Endocrinology "Classic gut peptides in the pancreatic islet - impact on beta-cell survival and function"	
10:50 am	Matthew Merrins Assistant Professor of Medicine - Endocrinology "Is pyruvate kinase the ATP/ADP generator that initiates insulin secretion?"	
11:10 am	Dudley Lamming Assistant Professor of Medicine - Endocrinology "Beyond the calorie: the regulation of metabolic health by specific dietary macronutrients"	
11:30 am	Mitchell Lavarias Graduate Research Assistant, Nutritional Sciences "Intestine-specific loss of Cpt2, required for long-chain fatty acid oxidation, alters systemic energy metabolism and glucose homeostasis"	
11:45 - 1:00 pm	Lunch and Poster Session (All Poster Presenters)	
1:00 - 2:10 pm	Research Talks - Afternoon Session I	Chair: Tim Rhoads
1:00 pm	Vincent Cryns Professor of Medicine - Endocrinology "Metabolic priming: a novel therapeutic paradigm for cancer"	
1:20 pm	Cara Westmark Assistant Professor of Neurology "Effects of soy-based diets on neurological & metabolic phenotypes."	
1:40 pm	Prasanth Kumar Graduate Research Assistant, Chemistry "Biochemical and structural characterization of a novel L-threonine transaldolase"	
1:55 pm	Heidi Pak Graduate Research Assistant, Medicine/Endocrinology, Diabetes, and Metabolism "Uncovering the role of fasting and reduced caloric intake in the metabolic benefits of calorie restriction"	
2:10 - 2:35 pm	Coffee Break	
2:35 - 3:45 pm	Research Talks - Afternoon Session II	Chair: Feyza Engin
2:35 pm	Ophelia Venturelli Assistant Professor of Biochemistry	
2:55 pm	Christopher Hittinger Associate Professor of Genetics "Genomic and metabolic evolution in yeasts"	
3:15 pm	Katherine Overmyer Associate Scientist, Metabolism "Multi-omic analysis of the human oral microbiome in health and disease"	
3:30 pm	Sydney Thomas Graduate Research Assistant, Biomolecular Chemistry "You are what [your bacteria] eat: epigenetics and the microbiome"	
3:45 - 4:45 pm	Social Break and Poster Session (Even Numbered Posters)	
4:45 - 5:45 pm	Keynote Speaker	
4:45 pm	Dr. Charles Burant Robert C. and Veronica Atkins Professor of Metabolism University of Michigan School of Public Health "Understanding how intrinsic variability in mitochondrial metabolism affects health and longevity"	
5:45 pm	Closing Remarks - Dave Pagliarini	
6:00 pm	Reception for Attendees	

Odd Numbered Posters 9:25 - 10:30 am		All Poster Presenters 11:45 - 1:00 pm	Even Numbered Posters 3:45 - 4:45 pm
POSTER NO.	TITLE	PRESENTER NAME	
1	Novel metabolome and breath platforms to trace microbiome contribution to host metabolism	Fariba Assadi-Porter	
2	Lipid metabolism in cancer cells and effects of the acidic microenvironment	Emily Britt	
3	Decreased consumption of branched-chain amino acids promotes lifespan and healthspan in wild-type and progeroid mice	Nicole Cummings	
4	Paracrine signaling within the islet: role of GLP-1 and CCK regulating β -cell function	Arnaldo de Souza	
5	Reduced FOXO1 signaling attenuates negative side effects of mTORC2 inhibition	Sabrina Dumas	
6	Unmasking the role of ZFP148 in regulating insulin secretion	Christopher Emfinger	
7	Isoform-specific functions of pyruvate kinase in β -cell metabolism and insulin secretion	Hannah Foster	
8	Tcf19 promotes functional β -cell mass and proliferative capacity in mice under metabolic stress	Rachel Geroux	
9	Sex and strain determine the metabolic response to dietary protein level	Cara Green	
10	Methyl-metabolite depletion elicits coordinated responses to support heterochromatin stability and epigenetic persistence	Spencer Haws	
11	Regulation of plasma membrane ATP/ADP by pyruvate kinase and creatine kinase for the inhibition of KATP channel in pancreatic β -cells	Thuong Ho	
12	Evaporative Cooling Provides a Major Metabolic Energy Sink	Ildiko Kasza	
13	Exploring a role for ancient mitochondrial ATPases in inter-organelle lipid distribution	Zachary Kemmerer	
14	Biochemical and structural characterization of a novel L-threonine transaldolase	Prasanth Kumar	
15	Intestine-specific loss of Cpt2, required for long-chain fatty acid oxidation, alters systemic energy metabolism and glucose homeostasis	Mitchell Lavarias	
16	Decrease in NAD contributes to accelerated aging retinal phenotypes in Tmem135 FUN025/FUN025 mice	Wei-Hua Lee	
17	Amino acids enhance β cell function by direct action and α cell paracrine signaling in pancreatic islets	Sophie Lewandowski	
18	The role of acyl-coA short chain synthetase 2 and acetyl-coA in regulation of chromatin modifications and gene expression	Anastasia Lindahl	
19	Lipid metabolism determines Toxoplasma differentiation	Bruno Martorelli Di Genova	
20	Fluorescence lifetime imaging of macrophage activation during wound response in larval zebrafish	Veronika Miskolci	
21	Mutation in Sortilin identified in an Amish population results in hypercholesterolemia in mice and humans	Kelly Mitok	
22	Investigating the role of the AarF domain containing kinases in mitochondrial metabolism	Nathan Murray	
23	The phosphatase Pptc7 promotes mitochondrial protein import to enable perinatal survival	Natalie Niemi	
24	Multi-omic analysis of the human oral microbiome in health and disease	Katherine Overmyer	
25	Uncovering the role of fasting and reduced caloric intake in the metabolic benefits of calorie restriction	Heidi Pak	
26	Listeria monocytogenes GlmR is an accessory uridyl-transferase essential for cytosolic survival and virulence	Dan Pensinger	
27	Functional characterization of the mitochondrial phosphatase YKR070W	Edrees Rshan	
28	Systems biochemistry analyses of a human knockout cell library defines new functions for orphan mitochondrial proteins	Jarred Rensvold	
29	Metabolism, longevity, and diet: tissue-specific effects of caloric restriction in non-human primates	Tim Rhoads	
30	Toward a metabolic control analysis of CDK1-dependent respiration in islet beta cells	Sophia Sdao	
31	Two-stage TCA cycle remodeling in macrophages over a course of immune response	Gretchen Seim	
32	Developing methods for the scalable monitoring and maturation of induced pluripotent stem cell-derived cardiomyocytes (iPSC-CMs)	Aaron Simmons	
33	Hepatic Agpat5 regulates plasma insulin in obesity	Samantha St. Clair	
34	Identification and characterization of a mitochondrial transporter in coenzyme Q biosynthesis	Jonathan Tai	
35	Defining a proteomic signature for soy-induced neurological & metabolic phenotypes in mice	Pamela Westmark	

Special thanks to our 2019 Morgridge/UW-Madison Symposium Planning Committee:

Abigail Bartlett
 Jason Cantor
 Jenelle Gierhart-Sutter
 Prasanth Kumar
 Amy Lin

Mateusz Manicki
 Matthew Merrins
 Dave Pagliarini
 Tim Rhoads
 Cara Westmark

Thank you for attending the **2019 Morgridge/UW-Madison Symposium**.

If you would like to be part of the planning committee for next year’s symposium, contact Jenelle Gierhart-Sutter via email at jjierhart-sutter@morgridge.org.

Planning for next year’s event will begin in the coming weeks.