



Purdue Microbiome Symposium
May 13-15, 2024

Number	Presenter [*=changes since program printing]	Day
1	Simerdeep Kaur, Purdue University <i>Nucleic acid detection of live pathogens</i>	Monday
2	Laurie Spencer, Northern Illinois University <i>Molecular Characterization of Intestinal Microbiome in Wild Bison</i>	Tuesday
3	Tianming Yao, Purdue University * <i>Different Arabinoxylan Side Chain Branch Density Mixtures Select Dominant Bifidobacterium or Bacteroides in Human Fecal Microbiota</i>	Monday
4	Apollo Stacy, Cleveland Clinic <i>Impact of the metabolite nitrate on oral health and disease</i>	Tuesday
5	Wily Sic, Purdue University <i>Fungal microbiome associated with tar spot of corn (<i>Phyllachora maydis</i>) over time in Indiana</i>	Monday
6	Yuxin Wang, Purdue University <i>The interaction between microbiome metabolites and the colon epithelial barrier in vitro</i>	Tuesday
7	Tessa Cannon (Wilde), The Ohio State University <i>Insights into SIV from Sooty Mangabey Saliva and Gut Microbes</i>	Monday
8	Benjamin Levine, University of Illinois at Urbana-Champaign <i>Prebiotic dietary fiber consumption confers resilience to psychological stress and intestinal dysmotility</i>	Tuesday
9	Anthony Yannarell, University of Illinois at Urbana-Champaign <i>Engines for rapid adaptation: symbiont evolution facilitates host tolerance to stress</i>	Monday
10	Zachary Lewis, The Ohio State University <i>Optimizing DNA extraction and host depletion for shotgun metagenomics of high-host low-microbial biomass urine samples.</i>	Tuesday
11	Thaisa Cantu-Jungles, Purdue University <i>Synergistic potential of fiber mixtures to support gut microbiota structure and short-chain fatty acid production</i>	Monday
12	Blake Williams, University of Illinois Chicago <i>The Role of Sex in the Gut Microbiota-Fetal Axis during Pregnancy</i>	Tuesday
13	Adam Quinn, Purdue University <i>Effects of Cereal Brans on Gut Microbiome Structure and Function</i>	Monday
14	Andrei Badilla-Aguilar, University of Notre Dame * <i>Transport and fate of manure-borne antibiotic resistance genes in flowing water</i>	Tuesday
15	Apekshya Chhetri, Purdue University <i>Diet quality impacts circulating tryptophan metabolites and the diversity of tryptophanase-harboring bacteria</i>	Monday

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16	Frederico Barros, Purdue University <i>Influence of Sorghum Phenolic Compounds and Dietary Fibers on Short-Chain Fatty Acid Production</i>	Tuesday
17	Ashley Kayabasi, Purdue University <i>Rapid Field Biosensor for Detecting Fecal Contamination on Fresh Produce Farms</i>	Monday
18	Sulemana Issifu, Purdue University <i>Pairwise Combinations of Biological Nitrification Inhibitors Reveal Antagonism and Synergism Against Nitrifiers and Soil Nitrification</i>	Tuesday
19	Dielson Vieira, Purdue University <i>Analysis of the cecum microbiome of the guinea pig: from species to fasting</i>	Monday
20	Cindy Mayorga, Purdue University <i>Use of polystyrene nanoparticles as particle models for Raman spectroscopy</i>	Tuesday
21	Seyedeh Nooshan Mirmohammadali, Purdue University <i>The Impact of Autoclaved versus Non-autoclaved Diet on Cecum and Colon Gut Microbiome Composition of Rats with Chronic Kidney Disease and Normal Kidney Function</i>	Monday
22	Hannah Toth, The Ohio State University <i>Using metagenomics to investigate the pathogen landscape and diversity of soft rot and blackleg infected potatoes</i>	Tuesday
23	Mohamed Kamel, Purdue University <i>Rapid Detection of Bovine Respiratory Disease Pathogens and Associated ARGs in Cattle Using Paper-Based Loop-Mediated Isothermal Amplification (LAMP)</i>	Monday
24	Vasu Rao, Noelle Toong, Benjamin David, University of Michigan - Ann Arbor <i>Quality Control for Automated Microbial Growth Experiments</i>	Tuesday
25	Nafisa Rafiq, Purdue University <i>A Field Deployable Heating System for Microbial Detection Using Loop-Mediated Isothermal Amplification (LAMP) Assay</i>	Monday
26	Alfonso Carrillo, The Ohio State University <i>Sub-daily virus sampling reveals population, but not community level differences at the Bermuda Atlantic Time Series</i>	Tuesday
27	Laura Bran, Purdue University <i>Development of biosensor for the detection of inflammatory blood biomarker in cattle</i>	Monday
28	Jordan Mason, The Ohio State University <i>Fecal and Urine Microbiota of Pet Dogs Vary with Breed and Sex</i>	Tuesday
29	Sophia Stokes, The Ohio State University <i>BefA Protein Induces Increased Growth in Germ-Free American Cockroaches</i>	Monday

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30	Barsha Bhattarai, Northern Illinois University <i>Mapping Antibiotic Resistant Genes (ARGs) and Bacteria (ARBs) in Diverse Environmental Niches</i>	Tuesday
31	Bibek Raut, Purdue University <i>Quantitative Analysis of Nucleic Acids on Paper Sensors</i>	Monday
32	Jessica Li, University of Michigan - Ann Arbor <i>A novel ultra-high-throughput microfluidic approach to grow and manipulate biofilms</i>	Tuesday
33	Shreya Milind Athalye, Purdue University <i>Viral Characterization and Real-Time Monitoring Using Raman Spectroscopy</i>	Monday
34	Ethan Hillman, University of Michigan - Ann Arbor <i>Bifidoacteria Leverage Type IVA Pili to Capture Resistant Starch and Enhance the Metabolism of an Insoluble Substrate</i>	Tuesday
35	Melanie Kessler-Mathieu, USDA-ARS CGHAR <i>Analysis of fungal microbiome composition of wheat subjected to different moisture and CO2 simulated storage conditions.</i>	Monday
36	Kyungyeon Ra, Purdue University <i>Lyophilize Loop-Mediate Isothermal Amplification method</i>	Tuesday
37	Hisako Masuda, Indiana University <i>Interactions between gut microbiota, medicinal herbs and a short-term plant-based diet</i>	Monday
38	Iqra Nazir, Purdue University <i>Impact of bacteriophage therapy against Salmonella Gallinarum on chicken gut microbiota</i>	Tuesday
39	Anubhav Basu, University of Illinois at Urbana-Champaign <i>Raffinose Family Oligosaccharide utilization by Bacteroides</i>	Monday
40	Audrey Ellis, Purdue University <i>Establishing a Gnotobiotic Mouse Model for Studying Swine-Microbiome Interactions</i>	Tuesday
41	Mirian Aparecida de Campos Costa, Purdue University <i>Impacts of Regular Black Tea Kombucha Consumption on the Gut Microbiota of Individuals With or Without Obesity</i>	Monday
42	Zainab Alzoubi, University of Illinois at Urbana-Champaign <i>Do nutrition interventions improve gastrointestinal symptoms during cancer treatment? A systematic review and meta-analysis.</i>	Tuesday
43	Pei-Ru Jin, Purdue University <i>Gut Bacterial Metabolite 3-Phenylpropionic Acid Alleviates Acetaminophen-induced Hepatotoxicity by Inhibiting Cytochrome P450 2E1 Expression</i>	Monday
44	Kyoungjae Won, Purdue University <i>Fusobacterium nucleatum Metabolites Promote Colorectal Cancer Cell Proliferation through Activating Aryl Hydrocarbon Receptor</i>	Tuesday

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45	Erica Long, Purdue University <i>A prediction model of tulathromycin antibiotic treatment success in pre-weaned dairy calves with bovine respiratory disease</i>	Monday
46	Anurag Pujari, Purdue University <i>Functional characterization of a GH43 enzyme from Bacteroides in Sorghum arabinoxylan cleavage</i>	Tuesday
47	Emily Spicuzza, Purdue University * <i>Development of Biofilm in a Hydroponics System</i>	Monday
48	Devin North, University of Notre Dame <i>Analysis of Temporal and Geographic Variation in Human Pathogens for Wastewater-Based Epidemiology (WBE) Applications</i>	Tuesday
49	Daisy Ugalde, University of Illinois at Urbana-Champaign <i>Intestinal and hepatic histology is altered by soluble fiber consumption in an FXR/SHP-dependent manner</i>	Monday
50	Kien Vu, University of Notre Dame <i>Application of Dye/Enzyme treatment for removing free nucleic acids in wastewater</i>	Tuesday
51	Jeremy Beales, The Ohio State University <i>Baseline gut microbiome alpha diversity predicts gastrointestinal symptoms in breast cancer patients receiving chemotherapy</i>	Monday
52	Bilal Ahmed, Purdue University <i>Development of a LAMP-based Paper-pad Biosensor for Genetic Trait Detection of Corn (Zea mays) and Soy (Glycine max)</i>	Tuesday
53	Maria Luisa Savo Sardaro, Northwestern University <i>How the gut microbiome can be shaped by the use of complex dietary fibers in food</i>	Monday
54	Boyu Jiang, Purdue University <i>Predicting host-microbiome interactions: integrating iColonEpithelium and microbial community-scale metabolic models</i>	Tuesday
55	Jordan Rindels, University of Illinois at Urbana-Champaign <i>Psychological stress and dietary fiber regulate markers of inflammation and anxiety</i>	Monday
56	Anjali Vanamala, Purdue University <i>The Impact of Anorexia Nervosa on the Gut Microbiota</i>	Tuesday
57	Angela del Aguila, The Ohio State University <i>Exploring the role of intraperitoneal immune cells in the communication between the gut microbiome and the brain</i>	Monday
58	Angela Kent, University of Illinois at Urbana-Champaign <i>Harnessing Microbiome Associated Phenotypes for Sustainable Nutrient Retention in Agroecosystems</i>	Tuesday

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59	Emily Kelleher, Northwestern University <i>Characterization of the Gut Microbiome in Sri Lankan Asian Elephants (Elephas maximus): A Comparative Study</i>	Monday
60	Brandon Schemerhorn, Purdue University <i>Shotgun Metagenomic Analysis of Schizaphis microbiome in response to Biotype, Carried CYDV and Time</i>	Tuesday
61	Miguel Alvarez Gonzales, Purdue University <i>In vitro degradation of wheat bran phenolic compounds by human gut microbiota</i>	Monday
62	Noah Brown, University of Illinois at Urbana-Champaign * <i>Prairie plant species differ in their resilience to fungicide-induced alterations of foliar endophytic mycobionemes</i>	Tuesday
63	Marcelo Guerrero, Purdue University <i>Experimental evolution of gut microbes on inulins varying in degree of polymerization</i>	Monday
64	Sadia Marjia Ferdous, Case Western Reserve University <i>Predicting Phage Cocktail Efficacy: A Step towards Phage-based Bacterial Control for Water Security</i>	Tuesday
65	Rajsri Raghunath, Purdue University <i>Cereal fiber type and bran particle size differentially selects for gut microbial community composition and function under high dilution pressure</i>	Monday
66	Ritesh Ray, Northern Illinois University <i>Comparative Genomics of Shiga toxin producing E. coli (STEC) harbored in bison and its impact on intestinal microbiome</i>	Tuesday
67	Ainsley Tran, University of Illinois Chicago <i>Determining the causal role of the gut microbiota in perinatal depression: A pilot study</i>	Monday
68	Andrew Fleck, Purdue University <i>HealthyHerd: A Web-Based Platform to surveil the spread of SARS-CoV-2 variants in Animal Populations</i>	Tuesday
69	Arval Viji Elango, Purdue University <i>Understanding the microbiome of Controlled Environment Agriculture towards the development of a microbial control</i>	Monday
70	Clay Swackhamer, Purdue University <i>Three patterns emerge in the gut microbial community during in vitro fecal fermentation of dietary fibers varying in their level of complexity</i>	Tuesday
71	Cristian Salinas, Purdue University <i>Microbial Community Analysis on Coffee Roots under Legume Intercropping Systems as an Alternative To Nitrogen Supply in Colombia</i>	Monday
72	Danyang Duan, University of Illinois at Urbana-Champaign <i>Ecological Memory of Nitrogen Fertilizers on Soil Microbiome Structure Becomes Evident at Peak Growth of Miscanthus</i>	Tuesday



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73	Edward Moncada, Purdue University <i>Deciphering Fiber Tolerance: Impact of Gut Bacterial Dysbiosis and Fiber Physicochemical Properties</i>	Monday
74	Gopal Palla, Purdue University <i>Field-deployable paper-based colorimetric LAMP biosensor for the detection of antimicrobial-resistant genes of Bovine respiratory disease</i>	Tuesday
75	Henrique Petry Feiler, Purdue University <i>Unveiling the Impact of Nanoplastics on Plant-Rhizosphere Dynamics: A Study of Tomato and Lettuce Microbiomes</i>	Monday
76	Jose Haro-Reyes, Purdue University <i>Anti-colitic activity of phlobaphenes and anthocyanins in IL-10 -/- mice is dependent on the human donor microbiota</i>	Tuesday
77	Josiah Davidson, Purdue University <i>Development of Nucleic Acid-based Diagnostics for the Detection of Viral Respiratory Pathogens in Humans and Animals on Paper</i>	Monday
78	Muhtashim Rafiq Chowdhury, Case Western Reserve University <i>Understanding the influence of houseplants on the indoor microbiome</i>	Tuesday
79	Paul Oladele, Purdue University <i>Evaluating the effect of lyoprotectants in preserving community structure and bacterial viability in the lyophilized fecal community of pigs.</i>	Monday
80	Victoria Gutierrez, Purdue University <i>Biofilm formation of Bifidobacterium spp. in sorghum arabinoxylan fermentation</i>	Tuesday
81	Trever Thurgood, Purdue University <i>Carbon Source-Specific Regulation of Nitrogen Fixation in Paraburkholderia xenovorans</i>	Monday
82	Lauren Sofia Yepes Fernandez & Maria Alejandra Osorio Marulanda, Purdue University <i>Whole Food Fibers For Support Of Key Gut Bacteria For Human Health</i>	Tuesday
83	Natalie Duvanenko, Purdue University * <i>A research proposal: root microbiomes and aphid resistance</i>	Monday
84	Aliya Ehde, Purdue University <i>The Molecular Ecology of Drinking Water in Building Plumbing as a Function of Stagnation</i>	Tuesday
85	Mark M. Figueroa, Northern Illinois University * <i>Determining the prevalence of Salmonella in wild and domesticated bison</i>	Monday
86	Sajal Bhattarai, Purdue University * <i>Invitro Investigation of Synergistic Growth Behavior of Selected Gut Bacteria on Sorghum Arabinoxylas</i>	Tuesday
87	Túlio Iglésias Machado, Purdue University * <i>The use of PNA clamps for surveys of plant bacterial endophyte diversity</i>	Monday