



American Society for Nutrition
Excellence in Nutrition Research and Practice
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Emerging Leaders in Nutrition Science Poster Competition

*Recognizing the highest quality research presented by students and young
investigators at ASN's Scientific Sessions and Annual Meeting at
Experimental Biology 2017*

Organized by ASN's Research Interest Sections and Councils

Thank you to those that were able to attend the event on Saturday, April 22, 2017 from 5:00 PM to 7:00 PM at the Hall F Swing Space of the McCormick Place Convention Center in Chicago, IL.

The following individuals have been announced as the winners of the competition.

Please join us in congratulating them!

Number and type of award (e.g., first/second/third place, grand prize winners) varied by each participating ASN Research Interest Section (RIS) and Council.

Aging and Chronic Disease RIS

Graduate Student – First Place:

9. Lauren O'Connor, Purdue University. *“Daily Red Meat Intake does not Affect Improvements in Cardiovascular Disease Risk Factors Induced by Consuming the USDA’s Healthy Mediterranean-Style Eating Pattern.”*

Graduate Student – Second Place:

10. Shirin Pourafshar, Florida State University. *“Genistein in Combination with Fructooligosaccharides Prevents Bone Loss in Ovariectomized Rats.”*

Graduate Student – Third Place:

13. Alexander Smith, University of Utah. *“A Low Magnesium Diet Worsens Metabolic Disturbances And Insulin Sensitivity In Diabetic Mice.”*

Graduate Student – Fourth Place:

15. Marta Zamroziewicz, University of Illinois Urbana-Champaign. *“Prefrontal Cortex Structure Mediates the Relationship between Plasma Phospholipid Stearidonic Acid and Fluid Intelligence in Healthy, Older Adults.”*

Postdoctoral Fellow – First Place:

3. Zheting Bi, University of Minnesota. *“Identification of p-cresol sulfate and secondary bile salts in human urine as sensitive biomarkers of fecal microbiota transplantation in R-CDI patients.”*

Postdoctoral Fellow – Second Place:

5. Gregory Guthrie, USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine. *“Phytosterols Have Limited Direct Effect on Hepatocyte Transporter Expression but Synergize with Endotoxin to Enhance Kupffer Cell Inflammatory Response.”*

Carotenoid and Retinoid Interactive Group (CARIG) RIS

First Place:

33. Bryan Gannon, University of Wisconsin-Madison. *“Increased Study Length of Retinol Isotope Dilution with Compartmental Modeling Alters Kinetic Parameters and Calculated Vitamin A Stores.”*

Second Place:

35. Emily Mohn, Jean Mayer USDA Human Nutrition Research Center on Aging, Tufts University. *“The Ratio of HDL to LDL in Serum Is Related to Macular Pigment Density and Cognitive Function in Older Adults: Potential Insights into Lutein Transport to Neural Tissue.”*

Third Place:

32. Rachel Chiaverelli, Tufts University. *“ β -cryptoxanthin protection against cigarette smoke-induced inflammatory responses in the lung is due to the action of its own molecule.”*

Fourth Place:

34. Sookyoung Jeon, University of Illinois at Urbana-Champaign. *“A comparison of lutein bioaccumulation in infant rhesus macaques fed breast milk, carotenoid-supplemented formula, or unsupplemented formula.”*

Fifth Place:

36. Yan Yuan, Ohio State University. *"Potential Roles of Lutein in Mammary Gland Development and Breast Cancer Cell Growth."*

Community and Public Health Nutrition RIS

First Place:

18. Godfred Boateng, Northwestern University. *"Early Childhood Learning Activities Buffer Adverse Effects of HIV Exposure on Infant Cognitive Development: A Longitudinal Study."*

28. Myat (Crystal) Pan Hmone, University of Sydney. *"Impact of SMS Text Messages to Improve Exclusive Breastfeeding: A Randomized Controlled Trial in Myanmar."*

Second Place:

17. Lauren Blacker, Cornell University. *"Household food insecurity and gender inequity is associated with high prevalence of maternal depression amongst female farmers with young children in rural Tanzania."*

Diet and Cancer RIS

First Place:

46. Sumira Phatak, Utah State University. *"Ancestral and multi-generational consumption of the total Western diet in mice promotes colitis-associated colorectal cancer in third-generation offspring."*

Second Place:

41. Candice Mazewski, University of Illinois at Urbana-Champaign. *"Comparison of the inhibitory potential of anthocyanin-rich plant extracts on colon cancer cell proliferation and their mechanism of action in vitro."*

Third Place:

47. Blaine Sherman, Texas State University. *"The Efficacy of Silibinin to Reduce the Impact of Obesity on Invasive Prostate Cancer."*

Fourth Place:

50. Zhe Yin, Michigan State University. *"Oxylipids derived from arachidonic and dihomo-gamma-linolenic acids are associated with colon polyps in adult males."*

Fifth Place:

45. Yong-Moon Park, National Institute of Environmental Health Sciences. *"High dietary acid load is associated with risk of breast cancer: findings from the Sister Study."*

Dietary Bioactive Components RIS

Graduate Student – First Place:

65. Patrick Solverson, USDA. *"Seven Day Blackberry Feeding Lowers the Respiratory Quotient in Males And Improves Insulin Sensitivity."*

Graduate Student – Second Place:

55. Jessica Ellis, Tufts University. *“Absorption and Excretion of Vitamin K Varies by Age and Triglycerides: A Metabolic Study in Older and Younger Adults Using Deuterium-Labeled Collard Greens.”*

Graduate Student – Third Place:

53. Marianne Collard, Wake Forest School of Medicine. *“Muscadine Grape Extract Inhibits Proliferation and Migration of Triple Negative Breast Cancer Cells in Association with a Reduction in TWIST.”*

62. Stephanie Mondloch, University of Wisconsin-Madison. *“Small servings of vegetables or a cruciferous supplement do not affect urinary estrogen metabolites in premenopausal women.”*

67. Lei Wang, University of Minnesota Twin Cities. *“Identification of activation of tryptophan-NAD+ pathway as a central metabolic response to chemical stress from feeding thermally-oxidized soybean oil in mouse through metabolomics-based biochemical analysis.”*

Postdoctoral Fellow – First Place:

61. Sonia Manca, University of Nebraska-Lincoln. *“The Bioavailability and Distribution of Bovine Milk Exosomes is Distinct from that of their Cargos in Mice.”*

Postdoctoral Fellow – Second Place:

68. Xian Wu, Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University. *“Oral administration of curcumin and salsalate attenuates high fat diet-induced up-regulation of pro-inflammatory colonic cytokines and suppresses Akt/NFkB signaling in azoxymethane-treated mice.”*

Undergraduate Student – First Place:

56. Samantha Gonzalez, Texas Tech University. *“Mechanisms Mediating Effects of Eicosapentaenoic Acid in Hepatic Steatosis in High Fat Fed Mice and in HepG2 Hepatoma Cells.”*

Undergraduate Student – Second Place:

57. Justin Guice, LSU AgCenter. *“Beneficial Effects of Fermentation of Whole Grains (WG) and Whole Grain Resistant Starch (RS) in Lean Zucker Diabetic Fatty (ZDF) Rats.”*

Energy and Macronutrient Metabolism RIS

First Place:

82. Jessica Hill, University of Memphis. *“Glucocorticoids In Combination With a High Fat Diet Increase Acute Phase Proteins and Alters PUFA metabolism in Visceral Adipose Tissue.”*

Second Place:

90. Karen Switkowski, Harvard Medical School and Harvard Pilgrim Health Care Institute. *“Protein Intake in Early Childhood is Not Associated with Adiposity, Height, or IGF-I in Mid-Childhood among Well-Nourished Children in a U.S. Cohort.”*

93. William Yakah, Michigan State University. *“Whole Blood Saturated Fatty Acids Are Negatively Associated with Executive Function in 2 to 6-Year-Old Ghanaian Children.”*

Third Place:

74. Jahmal Brooks, University of Toronto. "Variable Intensity Exercise Increases Protein Requirements in Active Male and Female Adolescents as Determined by the Indicator Amino Acid Oxidation (IAAO) Technique."

92. Christian Wright, Purdue University. "Effects of Dietary Protein Source and Amount on Bone Quantity and Body Composition following a High-Protein Weight-Loss Diet in a Rat Model of Postmenopausal Obesity."

Experimental Animal Nutrition RIS

First Place:

99. Heather Paul, University of Calgary. "Longitudinal ¹H NMR Metabolomics Analysis Identifies Differences in Maternal Response to Pregnancy and Lactation between Lean and Diet-Induced Obese Sprague-Dawley Rats."

Second Place:

95. Ronique Beckford, Univ. of Tennessee. "Mechanisms for Programming Reduced Adiposity through Maternal Dietary Fish Oil."

96. Jerad Dumolt, State University of New York at Buffalo. "Maternal Hypercholesterolemia and Phytosterol Intervention on Oysterol Concentrations in Newly-Weaned ApoE Deficient Mice."

97. Lauren Fowler, University of Alabama at Birmingham. "Sex-Specific Differences in the Development of Diet-Induced Obesity in a Zebrafish Model."

Global Nutrition Council

First Place:

121. Shruthi Cyriac, Emory University. "Understanding Stakeholder Networks for Nutrition Policy: Lessons from a Network Analysis Study in India."

Second Place:

116. Ekta Amarnani, McGill University. "Food Insecurity in the Global Youth: an Analysis of Income-Related Inequalities."

122. Sarah Dumas, Cornell University. "Local Egg Production Centers Significantly Increase Maternal and Child Egg Consumption in Rural Zambia."

Maternal, Perinatal and Pediatric RIS

101. Cora Best, Cornell University. "Serum 24,25-dihydroxyvitamin D Is Suppressed Across Pregnancy In Adolescents with Low Vitamin D Status."

104. Carrie-Ellen Briere, Connecticut Children's Medical Center. "Stem-Like Cells in Breastmilk for Hospitalized Preterm Infants."

107. Erin Davis, University of Illinois at Urbana-Champaign. *“Early Life Milk Intake Among Infants of Different Feeding Modes.”*

110. Austin Mudd, University of Illinois. *“Dietary Sialyllactose Influences Magnetic Resonance Imaging Outcomes in the Piglet Corpus Callosum.”*

115. Samantha Weaver, University of Wisconsin-Madison. *“Administration of Fluoxetine or a Small Molecule TPH1 Inhibitor Affects Litter Size, Pup Mortality, and Milk Yield During Murine Pregnancy and Lactation.”*

Medical Nutrition Council

Graduate Student – First Place:

128. Junrui Cheng, Tufts University Friedman School of Nutrition Science and Policy. *“Ablation of systemic SIRT1 activity promotes nonalcoholic fatty liver disease by affecting liver-mesenteric adipose tissue fatty acid mobilization.”*

Postdoctoral Fellow – First Place:

132. Tho Pham, University of Connecticut. *“Nicotinamide Riboside, an NAD+ Precursor, Attenuates The Activation of Hepatic Stellate Cells.”*

Neurobiology

(sponsored by the Aging and Chronic Disease RIS, Nutrition Translation from Bench to Consumer RIS, and Obesity RIS)

First Place:

177. Kelly Sheppard, The Research Institute at Nationwide Children's Hospital. *“The Omega-6 to Omega-3 Fatty Acid Ratio Predicts Brain Activity During Planning Tasks in Middle Childhood.”*

Second Place:

178. Anne-Julie Tessier, McGill University. *“Dairy Product Intake is Associated with Cognition but not Cognitive Decline in the NuAge Community-Dwelling Older Adult Cohort.”*

Third Place:

173. Caitlyn Edwards, University of Illinois at Urbana Champaign. *“Domain-specific relationships between cognitive control and disordered eating attitudes.”*

Nutrient-Gene Interactions RIS

146. Krittikan Chanpaisaeng, Purdue University. *“Femoral and L5 Spine Trabecular Bone are Differentially Influenced by Dietary Calcium Restriction and Genetics in Growing Mice.”*

147. Wei Guo, University of North Carolina Greensboro. *“Regulation of Endogenous Dusp4 by Agonist-Specific MAPK Activation in Adipocytes.”*

Nutrition Education and Behavioral Sciences RIS

First Place:

137. Deborah Fetter, University of California, Davis. *“Impact of Healthy Choices in Motion on Physical Activity Knowledge.”*

139. Gabriella McLoughlin, University of Illinois at Urbana Champaign. *“School Lunch and Physical Activity During Recess: Interactive Effects of Health Behaviors in the School Setting.”*

Second Place:

135. Alexandra Cowan, Fairfield University. *“More to Gain: Diet Energy Density is Associated with Smoking Status in US Adults.”*

Third Place:

141. Jazmin Rodriguez-Jordan, University of California, Davis. *“Implementation of an adapted garden-enhanced nutrition curriculum for use among fourth-grade students in an urban city in Mexico: A feasibility study.”*

Nutrition Translation from Bench to Consumer RIS

171. Yasmeen Nkrumah-Elie, University of Colorado, Anschutz Medical Campus. *“Foodomics Application: Analysis of Dietary Components of the DASH Diet Pre and Post Consumption.”*

Nutritional Epidemiology RIS

First Place:

150. Hassan Dashti, Massachusetts General Hospital. *“Email administered web-based dietary assessment from the UK Biobank captures chronotype-specific reporting behaviors: implications for population-based dietary sampling.”*

162. Jiayi Xu, Cornell University. *“Meta-Analysis of the Association of Omega-3 Fatty Acids Biomarkers with Pulmonary Function.”*

Second Place:

151. Anna Grummon, University of North Carolina, Chapel Hill. *“Nutritional Profile of Supplemental Nutrition Assistance Program Household Food and Beverage Purchases.”*

160. Ambika Satija, Harvard TH Chan School of Public Health. *“Plant-Based Diets and the Risk of Coronary Heart Disease in US Adults.”*

Third Place:

155. Yi-Hsuan Liu, The Pennsylvania State University. *“A prospective study of taste and smell dysfunctions and the risk of hypertension.”*

157. Melanie Mott, Boston University School of Medicine. *“DIETARY CHOLESTEROL LOWERS RISK OF TYPE 2 DIABETES IN THE FRAMINGHAM OFFSPRING STUDY.”*

Nutritional Immunology and Inflammation RIS

First Place:

164. Ryan Calvert, Purdue University. "Myeloid Derived Suppressor Cells (MDSC) Are Vitamin D Targets and 1 α , 25 Dihydroxyvitamin D (1,25(OH)2D) Inhibits their Ability to Suppress T Cell Function."

Second Place:

165. William Green, University of North Carolina at Chapel Hill. "Altered Metabolism and Function of T Cells Isolated from Influenza Vaccinated Obese Adults."

Third Place:

168. Jennifer Rebeles, UNC Chapel Hill. "Obesity Resets the Metabolic Profile of T Cells, Resulting in Reduced Memory T Cell Responses to Influenza Infection."

Obesity RIS

First Place:

190. Diana Obanda, LSU AgCenter. "Obese prone CD rats robustly ferment resistant starch (RS) with no increased weight and fat accretion."

Second Place:

188. Lucy Mailing, University of Illinois at Urbana-Champaign. "Effects of a 6 Week Aerobic Exercise Intervention on Gut Bacterial Metabolites in Lean and Obese Adults."

Third Place:

187. Tzu-Wen Liu, University of Illinois at Urbana-Champaign. "Diet Differentially Impacts Gastrointestinal Integrity, Fecal β -glucuronidase Activity, and Longitudinal Fecal Microbial Communities of C57BL/6J Mice in Response to Ovariectomy-Induced Obesity."

Policy

(sponsored by the Public Policy Committee)

203. Shauna Downs, Johns Hopkins University. "Salt and the city: a preliminary examination of New York City's sodium warning labels."

Vitamins and Minerals RIS

194. Laura Hackl, ETH Zürich. "A novel, high precision multiple-meal stable isotope method to compare iron absorption from extruded FePP-fortified rice containing different zinc compounds, citric acid/trisodium citrate and EDTA in Ghanaian children."

195. Samantha Jones, Iowa State University. "Whole Egg Consumption as a Dietary Prevention and Treatment Intervention Increases Serum 25-hydroxyvitamin D Concentrations in Rats with DSS-Induced Colitis."

198. Leila Larson, Emory University. "Home fortification with multiple micronutrient powders improves infant and young child development in Bihar, India."

200. Cassondra Saande, Iowa State University. "Vitamin D Derived from Dietary Whole Egg is more Effective than Supplemental Vitamin D3 in Maintaining Vitamin D Balance in Type 2 Diabetic Rats."

201. Elizabeth Stremke, Purdue University. "Twenty-Four-Hour Urine Phosphorus is Highly Variable in Patients with Moderate Chronic Kidney Disease on a Controlled Phosphorus Intake."

202. Ying Xiao, Regenerative Medicine Research Center, West China Hospital, Sichuan University. "Deactivation of Fibroblasts and Reduction of Fibrosis by Target-Specific Copper Supplementation in Rhesus Monkey Model of Myocardial Ischemic Infarction."

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