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## **Emerging Leaders in Nutrition Science Competition**

*Recognizing the highest quality research presented by students and young investigators at ASN's Scientific Sessions and Annual Meeting at Experimental Biology 2016*

**Organized by ASN's Research Interest Sections and Councils**

**Thank you to those that were able to make the event on Saturday, April 2, 2016 from 5:00 PM – 7:00 PM held in San Diego Convention Center – Sails Pavillion**

**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 and Council.**

## Nutritional Epidemiology RIS

### **Graduate Student First Place:**

**4. "Development and Validation of a Nutrition Transition Diet Score for Adolescents in India."** Nida Shaikh, Emory University

### **Graduate Student Second Place:**

**8. "Impact of Body Mass Index and Metabolic Health Status on All-Cause Mortality Risk among Older Adults."** Feon Cheng, The Pennsylvania State University

### **Graduate Student First Place:**

**11. "Higher Diet Quality and Decreased Inflammation in Young Women."** Qiong Chen, University of Massachusetts Amherst

### **Postdoctoral Fellow First Place:**

**18. "Prospective Relations between Red Blood Cell n-6 and n-3 Fatty Acid Composition and Cognitive Function among Older Puerto Rican Adults."** Sherman Bigornia, University of Massachusetts Lowell

### **Postdoctoral Fellow Second Place:**

**22. "Usual Coffee Intake among Adults in the United States."** Erikka Loftfield, National Cancer Institute

### **Postdoctoral Fellow Third Place:**

**17. "Development and Validation of Empirical Indices of Dietary Insulinemic Potential."** Fred Tabung, Harvard T. H. Chan School of Public Health

## Global Nutrition Council

**25. "An Enteropathy Score Predicts Subsequent Length Better than Lactulose Mannitol (L:M) Ratio alone in Children Enrolled in a Community-based Randomized Trial of Complementary Food Supplements in Rural Bangladesh."** Rebecca Campbell, Johns Hopkins Bloomberg School of Public Health

**28. "Early Childhood Predictors of Lifecourse BMI Latent Class Trajectories in a Guatemalan Cohort."** Nicole Ford, Emory University

**32. "Non-Responsive Feeding Behaviors are Negatively Associated with Growth and Dietary Diversity at 24 months in Rural Bangladesh."** Zaynah Chowdhury, Johns Hopkins Bloomberg School of Public Health

## Maternal, Perinatal and Pediatric RIS

**37. "Women with a Common Genetic Variant in ZnT2 (T<sup>288</sup>S) Have Altered Breast Milk Composition: Implications for Suboptimal Lactation."** Sooyeon Lee, Penn State Hershey College of Medicine

**41. "Lean Mass Accretion Associates With Vitamin D Intake: A 6 Month Randomized Controlled Trial in 2-8 y Olds Using Fortified Foods."** Neil Brett, McGill University

**42. "Role of Human Milk Oligosaccharides in Feto-placental Endothelial Function in Gestational Diabetes Mellitus."** Evelyn Jantscher-Krenn, Medical University of Graz

**43. "Mammary Gland Structure and Functional Changes in Mouse Model of Chronic Gestational Alcohol Exposure."** Robyn Amos-Kroohs, University of Wisconsin-Madison (presenter will be available from 5:00 pm – 6:00 pm)

**46. "Calcium Absorption Among Racially Diverse Pregnant Women."** Mary Lesser, Children's Hospital Oakland Research Institute

**47. "Current Methods of Thickening Feeds for Preterm Infants with Gastroesophageal Reflux Disease is Highly Variable."** Jenny Koo, UC San Diego/Rady Children's Hospital of San Diego

#### Community and Public Health Nutrition RIS

##### Second Place:

**75. "Food Insecurity is Associated with Depression and Stress Among a Cohort of Pregnant Kenyan Women of Mixed HIV Status."** Irene Tsai, Cornell University

##### First Place:

**76. "Perceived Benefits of Livestock Ownership among Female Smallholder Farmers of Mixed HIV Status in Nyanza Province, Kenya."** Abena Maranga, Cornell University

##### Third Place:

**77. "High Overweight/Obesity Risk among Children Enrolled in Michigan Migrant and Seasonal Head Start Programs, 2012."** Crystal Nance-Panek, Michigan State University

#### Nutrition Education and Behavioral Science RIS

##### First Place:

**85. "Using Skin Carotenoids to Assess Potential Dietary Changes After One Academic Year in the Shaping Healthy Choices Program."** Lori Nguyen, University of California, Davis

##### Second Place:

**90. "Adolescents with At-Risk Eating and Lifestyle Behaviors are Impacted by After-school Schedules across the Clinical Weight Spectrum."** Leanna Perez, The Ohio State University

##### First Place:

**96. "Comparing Dietary Strategies to Increase Vegetable Consumption: Encouraging Tomato Products vs Raw Vegetable Consumption."** Sajida Rahman, Illinois Institute of Technology

#### Medical Nutrition Council

##### Honorable Mention:

**100. "Prospective Association of Fasting Blood Glucose Levels with Risk of Incident Stroke among Hypertensive Patients in China: Impact of Folic-acid Intervention."** Richard Xu, River Hill High School

**101. "Impact of Almond Consumption on the Composition of the Gastrointestinal Microbiota of Healthy Adult Men and Women."** Andrew Taylor, University of Illinois at Urbana-Champaign

##### Graduate Student Winner:

**106. "Three Doses of Vitamin D on Insulin Resistance and Osteocalcin Measures in Older Women."** L. Claudia Pop, Rutgers University

##### Postdoctoral Fellow Winner:

**109. "Influence of Daily and Per Meal Protein Intakes on Function and Body Composition in Frail, Obese Older Adults Undergoing Weight Reduction."** Kathryn Porter Starr, Duke University Medical Center

### Diet and Cancer RIS

#### Third Place:

**113. "Effect of 1,25(OH)<sub>2</sub>D in Regulating Glutamic-Oxaloacetic Transaminase 1 (GOT1) and Redox Balance During Breast Cancer Progression."** Xuanzhu Zhou, Purdue University

#### First Place:

**116. "Dietary Tomato Reduces Castration-Resistant Prostate Cancer Burden in the TRAMP Model."** Joshua Smith, University of Illinois at Urbana-Champaign

#### Second Place:

**121. "Excess Dietary Iron Modulates Intestinal Tumorigenesis."** Logan Glosser, Case Western Reserve University

### Aging and Chronic Disease RIS

#### Graduate Student Third Place:

**128. "Consuming < or > 0.5 Servings of Red Meat per Day Does Not Have a Negative Impact on Cardiovascular Disease Risk Factors; A Systematic Review and Meta-analysis of Randomized Controlled Trials."** Lauren O'Connor, Purdue University

#### Graduate Student Second Place:

**134. "Muscadine Grape (*Vitis rotundifolia*) and Wine Phytochemicals Mitigates Dextran Sulfate Sodium-induced Colitis in Mice."** Ruiqi Li, Univ of Florida

#### Graduate Student First Place:

**138. "Gray Matter Thickness of Inferior Frontal Cortex Mediates the Relationship between Phosphatidylcholine and Executive Functions in Healthy, Older Adults."** Marta Zamroziewicz, University of Illinois Urbana-Champaign

#### Postdoctoral Fellow Second Place:

**140. "Metabolism of Uniformly Labelled 13C-Eicosapentaenoic acid and 13C-Arachidonic Acid During Healthy Aging."** Pauline Léveillé, University of Sherbrooke

#### Postdoctoral Fellow First Place:

**141. "Choline and its Metabolites are Differentially Associated with Cardiometabolic Risk and Cardio- and Cerebro-vascular Disease."** Annie Roe, University of Idaho

### Energy and Macronutrient Metabolism RIS

#### First Place:

**149. "Leucine in the Presence of Inflammation Alters BCAA Metabolism in Human Myotubes."** Emily Riddle, Cornell University

#### Second Place:

**151. "Adipocyte-Specific Ablation of Long-Chain Acyl-CoA Synthetase-4 (ACSL4) in Mice Protects Against Diet-Induced Obesity-Associated Decreases in White Adipocyte Oxygen Consumption and Whole Body Energy Expenditure."** Elizabeth Killion, USDA Human Nutrition Research Center on Aging, Tufts University

#### Third Place:

**152. "Dietary  $\alpha$ -Linolenic Acid (ALA) Rich Flax Oil Elevates Renal and Hepatic Docosahexaenoic Acid (DHA) Derived Bioactive Lipids."** Jessay Devassy, University of Manitoba

**Second Place:**

**153. "Lipid Emulsions, Rich in n-3 or n-9 Fatty Acids, Reverse the Progression of Parenteral Nutrition-Induced Hepatic Steatosis in Mice."** KUAN-HSUN HUANG, The Pennsylvania State University

**Third Place:**

**178. "Effects of Exercise, Caloric Restriction and Subsequent Weight Regain Following the Loss of Ovarian Function on Mitochondrial Respiratio."** Robera Oljira, University of Colorado

**Obesity RIS**

**Second Place:**

**187. "Effects of an Almond-Enriched Energy Restricted Diet on Body Composition, Visceral Adipose Tissue and Blood Pressure in Obese Adults."** Jaapna Dhillon, Purdue University

**Third Place:**

**188. "Comparison of MRI and DXA for Measurement of Visceral Adipose Tissue in Adolescent Females."** Staci Belcher, University of Georgia

**First Place:**

**192. "Therapeutic Potential of AICAR in Attenuating Obesity-Induced Metabolic, Liver and Kidney Disease."** Emma Borgeson, University of Gothenburg

**Nutritional Immunology and Inflammation RIS**

**Second Place:**

**201. "Monounsaturated Fatty Acids Impede Inflammation Partially Through Activation of AMPK."** Claire Lyons, Conway Institute of Biomolecular and Biomedical Research

**First Place:**

**203. "The Impact of Environmental Enteropathy and Systemic Inflammation on Infant Growth Failure."** Caitlin Naylor, Medical Research Council Unit, The Gambia

**Third Place:**

**205. "Effects of a Randomized, Controlled Trial of Daily Vitamin D3 Supplementation During Pregnancy on Regulatory Immunity and Inflammation."** Melissa Zerofsky, USDA-Western Human Nutrition Research Center

**Nutrient-Gene Interactions RIS**

**First Place:**

**207. "Depletion of Dietary microRNAs from Cow's Milk Causes an Increase of Purine Metabolites in Human Body Fluids and Mouse Livers."** Ana Aguilar Lozano, University of Nebraska-Lincoln

**Second Place:**

**208. "Gene, Sex and Diet Interact to Control the Tissue Metabolome."** Ann Wells, University of Tennessee

### Experimental Animal Nutrition RIS

#### **First Place:**

**213. "Consequences of Maternal Iron-Deficiency: Fetal Anemia, and Hypoxia in Select Tissues of the Conceptus."** Andrew Woodman, University of Alberta

#### **Second Place:**

**216. "Gene Expression of Vitamin D Regulatory Enzymes in Renal Tissue of Growing Pigs is Modulated by Maternal Dietary Vitamin D Concentrations."** Laura Amundson, UW-Madison

#### **Third Place:**

**221. "Activation of Ubiquitin-proteasome system coComponents in Heat-stressed Pig Skeletal Muscle."** Lidan Zhao, Virginia Tech

### Nutrition Translation RIS

**225. "Mapping Inflammation and Cancer-modifying Regions in Broccoli Genome."** Weston Bussler, NC State University

**227. "Adherence to the 2015 Dietary Guidelines for Americans (DGA) and Risk of Healthy and Unhealthy Obesity among Canadian Adults."** Mahsa Jessri, University of Toronto

### Vitamins and Minerals RIS

**229. "1,25-Dihydroxyvitamin D Regulates Energy Substrate Metabolism to Reduce Triacylglycerol Accumulation in 3T3-L1 Adipocytes."** Brienna Larrick, Purdue University

**230. "Effect of Vitamin D Fortified Cheese on Oral Glucose Tolerance in Individuals Exhibiting Marginal Vitamin D Status and an Increased Risk for Developing Type 2 Diabetes: A Double-Blind, Randomized Placebo-Controlled Clinical Trial."** Tracy Moreira-Lucas, University of Toronto

**234. "The AHR Pathway And Its Potential Role In The Regulation Of The 15 kDa Selenoprotein."** Sarah Galinn, Towson University

**238. "Maternal Choline Supplementation Modulates Maternal and Fetal Choline Metabolism and Downregulates Inflammatory Gene Expression in a Mouse Model of Placental Insufficiency."** Julia King, Cornell University

**240. "High Iron Diet During Prenatal Alcohol Exposure (PAE) May Normalize Iron Homeostasis in PAE Fetuses."** Adrienne Cheng, University of Wisconsin

**241. "Lack of Intestinal Divalent Metal-ion Transporter 1 (DMT1) Perturbs Copper Homeostasis in Mice."** Xiaoyu Wang, University of Florida

**247. "Hepcidin Attenuates Zinc Efflux in Caco-2 Cells."** Stephen Hennigar, U.S. Army Research Institute of Environmental Medicine

## Dietary Bioactive Components RIS

### Graduate Student Third Place:

254. "Unfermented and Fermented Cocoa Extracts as Inhibitors of Pancreatic  $\alpha$ -Amylase,  $\alpha$ -glucosidase, and Pancreatic Lipase." Caroline Ryan, Virginia Tech

### Graduate Student Third Place:

255. "The Heat Shock Protein 70 is a Novel Target for Nobiletin in Human Colon Cancer Cells." Zili Gao, University of Massachusetts Amherst

### Graduate Student First Place:

258. "Modulation of Cerebral Activity Induced by  $\alpha$ -casozepine, a Benzodiazepine-like Peptide Derived from Bovine Casein." Simon Benoit, UMR Nutrition Physiology and Ingestive Behavior (PNCA), AgroParisTech, INRA, University Paris-Saclay

### Graduate Student Second Place:

268. "Green Tea Extract Lowers NF $\kappa$ B-mediated Inflammation During Nonalcoholic Steatohepatitis in Mice Fed a High-fat Diet Consistent with Reduced Toll-like Receptor-4 Signaling." Jinhui Li, The Ohio State University

### Graduate Student Third Place:

274. "Neurorescue Effect of EGCG in an Animal Model of Parkinson's Disease." Qi Xu, Iowa State University

### Postdoctoral Fellow Second Place:

287. "Probiotic Lacidofil  $\rightarrow$  STRONG Mitigates the Antibiotic-Induced Alteration of the Fecal microRNA Signature in Healthy Humans." Amel Taibi, University of Toronto

### Postdoctoral Fellow First Place:

288. "Dietary Small RNA Modulation of Gut Microbiota Composition: *in-silico* and *in-vitro* Analyses." Haiqiu Huang, USDA ARS BHNRC

### Undergraduate Student Second Place:

289. "Obesity-Breast Cancer Interactions: Effects of Adipocytes on Breast Cancer Cells and Preventive Effects of Omega 3 Fatty Acids." Sara Alhaj, Texas Tech University

### Undergraduate Student First Place:

290. "Ellagic Acid and Quercetin are High-Affinity Ligands of Human Peroxisome Proliferator-Activated Receptor Alpha in an In-Vitro Competitive Binding Assay." Geoff Sasaki, Oregon State University

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