# ANITA A. PANJWANI

700 W. State Street
West Lafayette, Indiana 47907
apanjwan@purdue.edu | 765-494-6559

## EDUCATION

2019 PhD, Human Nutrition, Department of International Health, The Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD
Dissertation: Joint Effects of Maternal Metabolic Conditions and Plasma Branched-Chain Amino Acids on the Risk of Child Autism Spectrum Disorder: Evidence of Sex Difference
Co-advisors: Dr. Amanda Palmer, Dr. Xiaobin Wang

2012 MPH, Nutrition, Hubert Department of Global Health, Emory University, Rollins School of Public Health, Atlanta, GA
Thesis: Impact of the Family Health Program in Vespasiano, Brazil on the Nutritional Status of Children Five Years and Younger
Advisor: Dr. Juan Leon

2009 BA, Neurobiological Sciences, Global Health Minor, Northwestern University, Weinberg School of Arts and Sciences, Evanston, IL

## PROFESSIONAL EXPERIENCE

2022 – Assistant Professor, Department of Nutrition Science, College of Health and Human Sciences, Purdue University, West Lafayette, IN

2019 – 2022 Postdoctoral Scholar, Departments of Nutrition Science and Psychological Sciences, College of Health and Human Sciences, Purdue University, West Lafayette, IN
Responsibilities: Examining the diet and gut microbiome in children with Angelman syndrome as co-PI on a grant through the Angelman Syndrome Foundation; leading the pilot study for the Purdue Omnityping Kit for Individualized Testing (POcKIT) project with Dr. Bridgette Kelleher, including selection of assays, development of materials, and fostering a collaboration with nutrition and food sciences faculty; conducted a study on effects of COVID-19 on food and eating behaviors in children with ASD; supported Dr. Regan Bailey's research program, including analysis of dietary supplement use among children using NHANES data

2018 – 2019 Research Assistant, Center on the Early Life Origins of Disease, Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Analyzed associations between the maternal plasma metabolome and subsequent diagnosis of child autism spectrum disorder

2016 – 2019 Research Assistant, Lewis B. and Dorothy Cullman Chemoprotection Center, Johns Hopkins School of Medicine, Baltimore, MD
Responsibilities: Conducted research on phytochemicals, including quantifying concentrations and preparing dietary interventions for clinical studies

2016 – 2017 Research Assistant, Center for Human Nutrition, Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Analyzed data from the Nepal Nutrition Intervention Project to examine the association between maternal inflammation and child growth

2015 – 2017 Research Assistant, Institute of International Programs, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Reviewed literature and conducted meta-analyses to identify preventive interventions for stunting and wasting

2013 – 2015 Statistical Analyst/Programmer, Department of Preventive Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL
Responsibilities: Developed and executed analytical programs to study prevention of chronic diseases, interpreted analyses, prepared scientific presentations and manuscripts, managed databases, and assisted in grant preparation

2012 – 2013 Consultant, Pan American Health Organization, Washington, D.C.
Responsibilities: In collaboration with Emory University, UNICEF, and the CDC, translated ProPAN 2.0 (Process for the Promotion of Child Feeding) software technical specifications into Epi Info code, assisted in the operationalization of WHO infant and young child feeding (IYCF) indicators, updated the software users' guide, provided training and technical support, and developed instructional and dissemination materials

2011 – 2012 Research Assistant, Emory University Rollins School of Public Health, Atlanta, GA
Responsibilities: Contributed to data analysis for multiple child nutrition projects in Brazil and Bolivia, and assisted in the design of a survey on maternal and child health, housing, feeding, and anthropometry

2012 Community Needs Assessor, Urban Health Initiative, Atlanta, GA
Responsibilities: Partnered with a low-income community in Northwest Atlanta to address issues of food security and health, and presented findings to community and stakeholders at a local food symposium at Emory University

2011 Intern, CARE India, Patna, India
Responsibilities: Collaborated with CARE staff to investigate infant and young child feeding practices in rural Bihar and conducted participatory research and content and skills trainings with front line health workers

2006 – 2010 Research Assistant and Lab Manager, Northwestern University, Evanston, IL
Responsibilities: Designed and conducted behavioral learning experiments in animal models to study memory and analyzed data for reports; hired and trained students, assigned roles and duties, and coordinated weekly lab meetings

## TEACHING EXPERIENCE

2019, 2021 Mentor, Course: Kelleher Laboratory Research Experience in Neurodevelopmental Disorders, Purdue University, West Lafayette, IN
Responsibilities: Introduce undergraduate students to topics in nutrition in neurodevelopmental disorders and mentor them in developing a research plan, conducting data analyses, drafting an abstract, and preparing a poster for presentation

2021 Guest Lecturer, Course: Language and Communication in Autism Spectrum Disorder, Purdue University, West Lafayette, IN
Responsibilities: Conducted an in-person lecture on diet, feeding, and GI problems in individuals with autism spectrum disorder for 120 undergraduate students

2021 Guest Lecturer, Course: Health Systems Organization, Portland State University School of Public Health, Portland, OR
Responsibilities: Conducted an online remote lecture on global innovations, including frugal innovations for masters level students

2017, 2018 Teaching Assistant, Course: Food Technology and Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Mentored masters level students; maintained course logistics, including coordinating several offsite tours; evaluated assignments and exams; assisted with curriculum revision

2017 Teaching Assistant, Course: Cellular Biochemistry of Nutrients, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Mentored masters level students; maintained course logistics; evaluated exams

2016, 2017 Guest Lecturer and Teaching Assistant, Course: Assessment of Nutritional Status, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Responsibilities: Mentored masters level students; maintained course logistics; evaluated assignments; lectured on lessons learned in the field

2014 Guest Lecturer and Teaching Assistant, Course: Introduction to Epidemiology, Northwestern University Feinberg School of Medicine, Chicago, IL
Responsibilities: Mentored medical students; evaluated assignments and exams

2013 Teaching Assistant, Course: Introduction to Epidemiology, Northwestern University Program in Public Health, Chicago, IL
Responsibilities: Mentored masters level students; held weekly lab sessions; evaluated assignments

## PROFESSIONAL ACTIVITIES

Member:

2021 – Diversity, Equity, and Inclusion Science Consortium, College of Health and Human Sciences, Purdue University

2020 – 2022 Postdoctoral and Graduate Diversity Equity and Inclusion Committee, Department of Psychological Sciences, Purdue University

2020 – Purdue Autism Research Center, Purdue University

2019 – International Society for Autism Research

2016 – American Society for Nutrition

Invited Speaker:

2021 "Income and Food Security Status Disparities among COVID-19 Impacts on Food-related Outcomes in Children with Autism Spectrum Disorder", Diversity, Equity, and Inclusion Science Consortium, College of Health and Human Sciences, Purdue University

2021 "COVID-19 and Food-related Outcomes in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status", Purdue Institute of Inflammation, Immunology, and Infectious Disease Research Spotlight

2021 "COVID-19 and Food-related Outcomes in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status", Purdue Autism Research Center

2020 "The Role of Nutrition in Autism Spectrum Disorders from Maternal Biomarkers to the Impacts of COVID-19: Highlighting Disparities", Interdepartmental Nutrition Seminar, Purdue University

2016 "Phytochemicals and Autism Spectrum Disorder" Wendy Klag Center for Autism & Developmental Disabilities Journal Club, Johns Hopkins Bloomberg School of Public Health

2014 High School Medicine Discovery Program, Northwestern Memorial Hospital

Invited Facilitator:

2014 "Integration of ProPAN Software on the Optifood Platform" Optifood Workshop WHO, Geneva, Switzerland

Abstract Reviewer:

2021 American Society for Nutrition Annual Meeting

Practicum Participant:

2018 Dietary Supplement Research, National Institutes of Health - Office of Dietary Supplements

Mentor:

2017 WISE (Women in Science and Engineering), Garrison Ford High School/ Johns Hopkins University

## LANGUAGES

English – native
Hindi and Urdu – fluent (speaking)
Spanish – conversational (reading, writing, speaking)

## STATISTICAL PROGRAMS

Stata, SAS, SPSS – proficient
R – basic

## HONORS AND AWARDS

| | |
|---|---|
| 2018 | Harry J. Prebluda Fellowship in Nutritional Biochemistry, Department of International Health, The Johns Hopkins Bloomberg School of Public Health |
| 2017 | Harry D. Kruse Fellowship, Department of International Health, The Johns Hopkins Bloomberg School of Public Health |
| 2017 | Sight and Life Global Nutrition Research Institute/DSM Scholars Program, Department of International Health, The Johns Hopkins Bloomberg School of Public Health |
| 2017 | George G. Graham Professorship endowment, Department of International Health, The Johns Hopkins Bloomberg School of Public Health |
| 2015 | Bacon Chow Endowed Award, Department of International Health, The Johns Hopkins Bloomberg School of Public Health |
| 2015 | Feinberg Program in Public Health Teaching Assistant Award, Department of Preventive Medicine, Northwestern University |
| 2011 | Global Field Experience Award, Rollins School of Public Health, Emory University |

## PUBLICATIONS

**Panjwani, A.**, Andrews, S., Hamrick, L., Wheeler, A., Kelleher, B.L. Early Hyperphagia in Prader-Willi Syndrome Compared to Other Neurodevelopmental Disorders (in preparation).

**Panjwani, A.**, Bailey, R.L., Kelleher, B.L. COVID-19 and Food-related Outcomes in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status. *Curr Dev Nutr* 2021; 5(9):nzab112.

**Panjwani, A.**, Bailey, R.L., Kelleher, B.L. COVID-19 and Behavior in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status. *Res Dev Disabil* 2021; 115:104002.

Zimmerman, A.W., Singh K., Connors, S.L., Liu, H., **Panjwani, A.**, Lee, L., Diggins, E., Foley, A., Melnyk, S., Singh, I.N., James, S.J., Frye, R.E., Fahey, J.W. Randomized Controlled Trial of Sulforaphane and Metabolite Discovery in Children with Autism Spectrum Disorder. *Mol Autism* 2021; 12(1):38.

**Panjwani, A.**, Cowan, A.E., Jun, S., Bailey, R.L. Trends in Nutrient and non-Nutrient containing Dietary Supplement Use among U.S. Children from 1999-2016. *J. Peds* 2020; 231:131-140.e2.

**Panjwani, A.**, Ji, Y., Fahey, J.W., Palmer, A., Wang G., Hong, X., Zuckerman, B., Wang, X. Maternal Dyslipidemia, Plasma Branched-Chain Amino Acids levels, and the Risk of Child Autism Spectrum Disorder: Evidence of Sex Difference. *J Autism Dev Dis* 2020; 50(2):540-550.
**Panjwani, A.**, Ji, Y., Fahey, J.W., Palmer, A., Wang G., Hong, X., Zuckerman, B., Wang, X. Maternal Obesity/Diabetes, Plasma Branched-Chain Amino Acids (BCAAs), and Autism Spectrum Disorder Risk in Urban Low-Income Children: Evidence of Sex Difference. *Autism Res* 2019; 12(10):1562-1573.

Fahey, J.W., Wade, K.L., Stephenson, K.K., **Panjwani, A.**, Liu H., Cornblatt, G., Cornblatt, B., Ownby, S., Fuchs, E., Holtzclaw, W.D., Cheskin, L. Bioavailability of Sulforaphane Following Ingestion of Glucoraphanin-Rich Broccoli Sprout Extract with Active Myrosinase: A pilot study of the effects of proton pump inhibitor administration and tablet coating. *Nutrients* 2019; 11(7).

Fahey, J.W., Wade, K.L., Stephenson, K.K., Shi, Y., Liu, H., **Panjwani, A.**, Warrick, C., Olson, M.E. A strategy to deliver precise oral doses of the glucosinolates or isothiocyanates from *Moringa oleifera* leaves for use in clinical studies. *Nutrients* 2019; 11(7).

**Panjwani, A.**, Liu, H., Fahey, J.W. Crucifers and related vegetables and supplements for neurologic disorders: what is the evidence? *Curr Opin Clin Nutr Metab Care* 2018; 21(6).

Ji, Y., Riley, A. W, Lee L, Hong, X., Wang, G., Tsai, H., Pearson, C., **Panjwani, A.**, Ji, H., Bartell, T. R., Burd, I., Fallin, M. D., Wang, X. Maternal biomarkers of acetaminophen use and offspring attention deficit hyperactivity disorder. *Brain Sci* 2018; 8(7).

Khan, S.S., Shah, S.J., Colangelo, L.A., **Panjwani, A.**, Liu, K., Lewis, C.E., Shay, C.M., Goff, D.C. Jr, Reis, J., Vasconcellos, H.D., Lima, J.A.C., Lloyd-Jones, D., Allen, N.B. Association of patterns of change in adiposity with diastolic function and systolic myocardial mechanics from early adulthood to middle age: the coronary artery risk development in young adults study. *J Am Soc Echocardiogr* 2018;31(12).

**Panjwani, A.**, Heidkamp, R. Complementary Feeding Interventions Have a Small but Significant Impact on Linear and Ponderal Growth of Children in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis. *J Nutr* 2017; 147.

*Presentations and Abstracts*

Andrews, S., **Panjwani, A.**, Kelleher, B.L., Hamrick, L., Wheeler, A. Early Hyperphagia in Prader-Willi Syndrome Compared to Other Neurodevelopmental Disorders. (2021, Sep 30 - Oct 1). Foundation for Prader-Willi Research Annual Symposium, Virtual.

**Panjwani, A.**, Bailey, R.L., Kelleher B.L. COVID-19 and Alterations in Behavior and Food-related Outcomes in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status. (2021, May 3-7). International Society for Autism Research Annual Meeting, Virtual.

**Panjwani, A.**, Bailey, R.L., Kelleher, B.L. COVID-19 and Food-related Outcomes in Children with Autism Spectrum Disorder: Disparities by Income and Food Security Status. (2021, Apr 5-8). In Wheeler, A. & Kelleher, B. (Chairs), *What is the need, and what do we do? Innovations in assessing and treating families of individuals with neurodevelopmental disorders during COVID-19 and beyond* [Symposium]. Annual Gatlinburg Conference, Virtual.

**Panjwani, A.**, Ji, Y., Fahey, J.W., Palmer, A., Wang G., Hong, X., Zuckerman, B., Wang, X. Maternal Multiple Metabolic Disorders, Plasma Branched-Chain Amino Acids (BCAAs), and Risk of Child Autism Spectrum Disorder Risk: Evidence of Sex Difference. (2020, May). International Society of Autism Research Annual Meeting. Invited oral presentation. Seattle, WA.

Aguilar, P., Smith, D., **Panjwani, A**. The Presence of Sensory Modalities in Neurogenetic Syndromes Compared to Low-risk Controls in the Purdue Early Phenotype Study. (2020, April). Purdue Undergraduate Research Conference. West Lafayette, IN.

**Panjwani, A.**, Ji, Y., Fahey, J.W., Palmer, A., Wang G., Hong, X., Zuckerman, B., Wang, X. Maternal Obesity/Diabetes, Plasma Branched-Chain Amino Acids (BCAAs), and Risk of Child Autism Spectrum Disorder Risk: Evidence of Sex Difference (2019, Jun 8-11). American Society of Nutrition. Baltimore, MD.

**Panjwani, A.**, Schulze, K., Wu, L., West, Jr., K. P., Christian, P. Inflammation during Pregnancy and Growth of Early School-Aged Children in Rural Nepal (2017, Apr 22-26). American Society of Nutrition. Chicago, IL.

Abedin, Z., Diez-Roux, A., Kershaw, K., **Panjwani, A.**, Allen, N.B. Does Social Support Moderate the Association of Socioeconomic Status and Subclinical Atherosclerosis in the Multi Ethnic Study of Atherosclerosis (MESA)? (2015, Oct 7-11). Annual Meeting of the Society of General Internal Medicine. Toronto, Canada.

Lutter, C., Mir, R., Pachon, H., Cheung, E., Sullivan, K., Creed-Kanashiro, H., **Panjwani, A.**, Escobar, J., Alam, K. ProPAN 2.0 (Process for the Promotion of Child Feeding): A Tool for Infant and Young Child Feeding Programming. The FASEB Journal. 2013;27:620.1.

**Panjwani, A.**, Czech, M., Koh, S., Gruber, J., Halliwell, B., Penney, T., Routtenberg, A. 2010. Long-lasting Olfactory Memory in C. elegans with Mutation in Two Protein Kinase C (PKC) Isoforms. (2010, Nov 3-7). Society for Neuroscience Conference. San Diego, CA.

## RESEARCH SUPPORT

| | |
|---|---|
| Ingestive Behaviors and Gut Microbiota in Children with Angelman Syndrome | $100,000 |
| Angelman Syndrome Foundation | 8/1/21 – 12/31/22 |
| Role: Principal Investigator with MPIs Bridgette Kelleher, Regan Bailey, and Stephen Lindemann | |

## AD HOC REVIEWER (SCIENTIFIC JOURNALS)

Journal of the Academy of Nutrition and Dietetics
Nutritional Neuroscience
The Journal of Nutrition
Public Health Nutrition
BMC Pediatrics