

University of Pittsburgh
School of Medicine
Curriculum Vitae

BIOGRAPHICAL

Mary Ellen Vajravelu, MD MSHP

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EDUCATION and TRAINING

UNDERGRADUATE

8/2004- 5/2008	Johns Hopkins University, Baltimore, MD	BS, 2008	Biomedical Engineering
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GRADUATE

7/2008- 5/2012	Case Western Reserve University School of Medicine, Cleveland, OH	MD, 2012	Medicine
7/2016- 5/2018	University of Pennsylvania	MSHP, 2018	Health Policy

POSTGRADUATE

6/2012- 6/2015	The Children's Hospital of Philadelphia; Philadelphia, PA	General Pediatrics Residency; Program Director: Dr. Lisa Zaoutis	Pediatrics
7/2015- 6/2018	The Children's Hospital of Philadelphia; Philadelphia, PA	Pediatric Endocrinology Fellowship; Program Director: Dr. Bassil Kublaoui	Pediatric Endocrinology
7/2016- 5/2018	Center for Healthcare Improvement and Patient Safety, The University of Pennsylvania, The Children's Hospital of Philadelphia; Philadelphia, PA	Fellowship in Healthcare Quality Improvement and Patient Safety; Co- directors Dr. Judy Shea and Dr. Rachel Werner	Healthcare Quality Improvement

APPOINTMENTS and POSITIONS**ACADEMIC**

2018-2021	The Children's Hospital of Philadelphia and University of Pennsylvania Perelman School of Medicine; Philadelphia, PA	Instructor of Pediatrics
2021-2021	The Children's Hospital of Philadelphia and University of Pennsylvania Perelman School of Medicine; Philadelphia, PA	Assistant Professor of Pediatrics
2021-present	University of Pittsburgh School of Medicine; UPMC Children's Hospital of Pittsburgh; Pittsburgh, PA	Assistant Professor of Pediatrics
2022-present	University of Pittsburgh School of Public Health; Pittsburgh, PA	Assistant Professor of Epidemiology

NON-ACADEMIC

2018-2021	Center for Pediatric Clinical Effectiveness, The Children's Hospital of Philadelphia; Philadelphia, PA	Core Faculty
2020-2021	Leonard Davis Institute of Health Economics, University of Pennsylvania; Philadelphia, PA	Associate Fellow
2021-present	Center for Pediatric Research in Obesity and Metabolism, UPMC Children's Hospital of Pittsburgh; Pittsburgh, PA	Investigator
2020-present	Richard King Mellon Institute for Pediatric Research at UPMC Children's Hospital of Pittsburgh	Scholar

CERTIFICATION and LICENSURE**SPECIALTY CERTIFICATION**

American Board of Pediatrics	2015
American Board of Pediatrics – Pediatric Endocrinology	2019

MEDICAL OR OTHER PROFESSIONAL LICENSURE

Pennsylvania State Board of Medicine	2012
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MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

Pediatric Endocrine Society (Quality Improvement Committee, 2016-Present)	2015-present
The Endocrine Society	2015-2021

American Diabetes Association	2018-present
Society for Pediatric Research, Junior Section	2019-present
The Obesity Society	2021-present
American College of Sports Medicine	2022-present

HONORS

Walt Disney World Foundation Merit Scholarship, full tuition for 4 years of college	2004-2008
Dean's Award Merit Scholarship, Case Western Reserve University School of Medicine	2008
Tau Beta Pi, Alpha Eta Mu Beta, National Engineering Honor Societies	2008
Alpha Omega Alpha Honor Medical Society	2012
Albert L. Lewin Award; Awarded to one outstanding medical student by the Department of Pediatrics, Rainbow Babies & Children's Hospital, Cleveland, OH	2012
Finalist, AppltUP Challenge: SugarTool; One of 5 chosen from 233 applicants across the University of Pennsylvania to compete for \$50,000 funding from venture capitalists	2016
Helmsley Charitable Trust Abstract Award to attend Endocrine Society Meeting	2017
CHOP Distinguished Research Trainee Award Nominee, The Children's Hospital of Philadelphia	2017
NIH Loan Repayment Program	2019-2023
Early Investigator Award, Endocrine Society	2019
Academic Pediatric Society and Society for Pediatric Research Journeys & Frontiers in Pediatric Research Program 2021-2022: nominated and selected to attend this program designed to encourage and support promising early career investigators in pediatrics	2021
mHealth Training Institute Scholar (NIH-funded)	2022
Inaugural Jules Hirsch Innovation Award, given by The Obesity Society in recognition of an early-career investigator whose novel work will significantly impact the field of obesity	2022
NIH Early Career Reviewer, Health Services and Systems Special Emphasis Panel	2023

PUBLICATIONS

ORIGINAL PEER-REVIEWED PUBLICATIONS

1. **Pozo M**, Cave A, Koroglu OA, Litvin DG, DiFiore J, Martin RJ, Kc P: Effect of Postnatal Intermittent Hypoxia on Growth and Cardiovascular Regulation of Rat Pups. Neonatology 102(2): 107-113, 2012 Notes: First author (maiden name Pozo).

2. **Vajravelu ME**, Tobolski J, Burrows E, Chilutti M, Xiao R, Bamba V., Willi S, Palladino A, Burnham J, McCormack SE : Peak cortisol response to corticotropin-releasing hormone is associated with age and body size in children referred for clinical testing: a retrospective review. International Journal of Pediatric Endocrinology 22(2015): doi: 10.1186, 2015.
3. **Vajravelu ME**, Chai J, Krock B, Baker S, Langdon D, Alter C, De Leon DD: Congenital Hyperinsulinism and Hypopituitarism Attributable to a Novel Mutation in FOXA2. The Journal of Clinical Endocrinology and Metabolism 103(3): 1042-1047, March 2018.
4. **Vajravelu ME**, Congdon M, Mitteer L, Koh J, Givler S, Shults J, De Leon DD: Continuous Intra-gastric Dextrose: A Therapeutic Option for Refractory Hypoglycemia in Congenital Hyperinsulinism. Hormone Research in Paediatrics 91(1): 62-68, August 2018.
5. Herrera (co-first author) A, **Vajravelu ME (co-first author)**, Givler S, Mitteer L, Avitabile CM, Lord K, De Leon DD: Prevalence of Adverse Events in Children with Congenital Hyperinsulinism Treated with Diazoxide. The Journal of Clinical Endocrinology & Metabolism 103(12): 4365-4372, December 2018.
6. **Vajravelu ME**, Keren R, Weber DR, Verma R, De León DD, Denburg MR: Incidence and Risk of Celiac Disease after Type 1 Diabetes: A Population-Based Cohort Study Using The Health Improvement Network Database. Pediatric Diabetes 19(8): 1422-1428, December 2018.
7. Webster J (co-first author), **Vajravelu ME (co-first author)**, Choi C, Zemel B, Verma R: Prevalence of and Risk Factors for Low Bone Mineral Density in Children With Celiac Disease. Clinical Gastroenterology and Hepatology 17(8): 1509-1514, July 2019.
8. Shah AS, El Ghormli L, **Vajravelu ME**, Bacha F, Farrell RM, Gidding SS, Katz LE, Tryggestad JB, White NH, Urbina EM: Cardiovascular and Metabolic Risk - Heart Rate Variability and Cardiac Autonomic Dysfunction: Prevalence, Risk Factors and Relationship to Arterial Stiffness in the Treatment Options for type 2 Diabetes in Adolescents and Youth (TODAY) study. Diabetes Care 42(11): 2143-2150, November 2019.
9. **Vajravelu ME**, Lee JM, Shah R, Shults J, Amaral S, Kelly A: Association between Prediabetes Diagnosis and Body Mass Index Trajectory of Overweight and Obese Adolescents. Pediatric Diabetes 21(5): 743-746, August 2020.
10. **Vajravelu ME**, Lee JM, Amaral S, Kelly A: Sex-Based Differences in Screening and Recognition of Prediabetes and Type 2 Diabetes in Pediatric Primary Care. Pediatric Obesity. 2021; 16:e12699.
11. **Vajravelu ME**, Lee JJ, Mitteer L, Zemel BS, Bittinger K, De Leon DD: Gut Microbiome Profile after Pancreatectomy in Infants with Congenital Hyperinsulinism. Pancreas 50(1):89-92, January 2021.
12. **Vajravelu ME**, Hitt TA, Amaral S, Katz LEL, Lee JM, Kelly A: Real-World Treatment Escalation from Metformin Monotherapy in Youth-Onset Type 2 Diabetes Mellitus: A Retrospective Cohort Study. Pediatric Diabetes 2021 (Sep);22(6):861-871.
13. **Vajravelu ME**, Hitt TA, Mak N, Edwards A, Mitchell J, Schwartz LA, Kelly A, Amaral S: Text Messages and Financial Incentives for Physical Activity: Insights from Virtual Group Interviews

of Adolescents with Prediabetes and Type 2 Diabetes. JMIR Diabetes 2022 (Apr 06); 7(2):e33082.

14. Stefanovski D, **Vajravelu M**, Givler S, De Leon D. Exendin-(9-39) effects on glucose and insulin in children with congenital hyperinsulinism during fasting and during a meal and a protein challenge. Diabetes Care 2022 (June 2);45(6):1381-1390.
15. **Vajravelu ME**, Kindler JM, Zemel BS, Jawad A, Koren D, Brar P, Brooks LJ, Reiner J, Katz LEL. Visceral Adiposity is Related to Insulin Sensitivity and Inflammation in Adolescents with Obesity and Mild Sleep Disordered Breathing. Journal of Pediatric Endocrinology and Metabolism 2022 (Jul 11);35(8):1069-1077.
16. **Vajravelu ME**, Hirschfeld E, Gebremariam A, Burant CF, Herman WH, Peterson KE, Meijer JL, Lee J. Prospective Test Performance of Nonfasting Biomarkers to Identify Dysglycemia in Children and Adolescents. Hormone Research in Paediatrics, 2022 (Online ahead of print).
17. **Vajravelu ME**, Mani I, Malik S, Hewitt B, Peyyety V, Arslanian S. Race and Neighborhood-Related Disparities Spanning the COVID-19 Pandemic: Trajectories of Combined Glycemic Control and Body Mass Index in Youth with Diabetes. Diabetes Care 2023 Mar 1;46(3):511-518.
18. Craven M, **Vajravelu ME**, Levine MA, Whyte MP, Mancilla EE. Sporadic osteolytic bone disorder from 12bp tandem duplication in TNFRSF11A encoding RANK: clinical characterization and response to bisphosphonate therapy. Bone 2023 May;170:116698.
19. Chu P, Patel A, Helgeson V, Goldschmidt A, Ray MK, **Vajravelu ME**. Perception and Awareness of Diabetes Risk and Reported Risk-Reducing Behaviors in Adolescents in the US: A Cross-Sectional Analysis. JAMA Network Open, May 2023 (in press)

OTHER PEER REVIEWED PUBLICATIONS

1. **Vajravelu ME**, Lee J: Identifying Prediabetes and Type 2 Diabetes in Asymptomatic Youth: Should HbA1c Be Used as a Diagnostic Approach? Curr Diab Rep 18(7): 43, June 2018.
2. **Vajravelu ME**, De Leon DD: Genetic characteristics of patients with congenital hyperinsulinism. Curr Opin Pediatr 30(4): 568-575, August 2018.
3. **Vajravelu ME**, Arslanian S: Mobile Health and Telehealth Interventions to Increase Physical Activity in Adolescents with Obesity: A Promising Approach to Engaging a Hard-to-Reach Population. Curr Obes Rep 2021 Dec;10(4):444-452.
4. Karbeah J, Bensignor MO, **Vajravelu ME**: Multidimensional Approaches to Understanding Structural Racism's Impact on Type 1 Diabetes. Pediatrics 2023 (in press)

OTHER NON-PEER REVIEWED PUBLICATIONS

1. **Vajravelu ME**, Tamaroff J, Shults J: Evidence Does Not Support a Role of Rotavirus Vaccination in Decline in Incidence of Type 1 Diabetes. JAMA Pediatrics 173(9):893. doi: 10.1001/jamapediatrics.2019.2457, July 2019.
2. **Vajravelu ME**: Type 2 diabetes in children: a rising health threat that can be detected early. Children's Doctor, Newsletter from The Children's Hospital of Philadelphia September 2019.

3. Elizabeth Hlavinka: New Therapeutic Hope for Kids With T2D: Liraglutide add-on boosts glycemic control in adolescents over 52 weeks. Medpage Today April 2019 Notes: Content-area expertise: I commented on liraglutide and type 2 diabetes in youth, as well as findings from an upcoming publication.
4. Debbie Koenig: New Guidelines for Kids With Obesity: What Parents Should Know. WebMD. January 13, 2023. Notes: Content-area expertise: I commented on recent American Academy of Pediatrics guidelines about pediatric obesity management.

PUBLISHED ABSTRACTS

1. Webster J, Choi C, **Vajravelu ME**, Zemel B, Verma R: Prevalence of Low Lumbar Spine Bone Mineral Density in Pediatric Patients with Celiac Disease: A Retrospective Cohort Study. Gastroenterology 154(6):S1074-S1074, May 2018. Notes: Poster presentation at Digestive Disease Week Conference June 2018.
2. **Vajravelu ME**, Keren R, Weber D, Verma R, De León DD, Denburg M: Incidence and Risk of Celiac Disease in Individuals with Type 1 Diabetes over the Lifespan: A Population-Based Cohort Study Using The Health Improvement Network Database. Diabetes 67(Supplement 1):-, July 2018. Notes: Moderated poster session at American Diabetes Association 78th Scientific Session, Orlando, FL June 2018.
3. Shah AS, El Ghormli L, Bacha F, Farrell RM, Gidding S, Katz LE, Tryggestad J, **Vajravelu ME**, White NH, Urbina EM: Reduced Heart Rate Variability (HRV) in Young Adults with Youth-onset Type 2 Diabetes (T2D) is related to Glycemic Control: The TODAY Study. Diabetes 68, July 2019. Notes: Moderated poster session at American Diabetes Association 79th Scientific Sessions, San Francisco, CA June 2019.
4. **Vajravelu ME**, Lee JM, Amaral S, Kelly A: Gender- and Race/Ethnicity-Based Differences in Type 2 Diabetes Screening in Pediatric Primary Care. Hormone Research in Paediatrics 93(SUPPL1):14-15, June 2020. Notes: Poster presentation accepted for Pediatric Endocrine Society Annual Meeting, Fort Worth, TX, April 2020; conference cancelled due to COVID19 pandemic.
5. **Vajravelu ME**, Lee JM, Shults J, Amaral S, Kelly A: Hemoglobin A1c-Based Diabetes Screening is Associated with Improved Body Mass Index Trajectory in Overweight and Obese Adolescents. Hormone Research in Paediatrics 93(SUPPL1):13-14, June 2020. Notes: Poster presentation accepted for Pediatric Endocrine Society Annual Meeting, Fort Worth, TX, April 2020; conference cancelled due to COVID19 pandemic.
6. Hitt TA, Vazquez Diaz S, Sanchez-Kleinberg Y, Shea J, Katz L, **Vajravelu ME**: 889-P: Prescriber Perceptions of the Implementation of Liraglutide into Pediatric Type 2 Diabetes Care. Diabetes 70(Supplement 1):-, June 2021. Notes: Poster presentation at American Diabetes Association 81st Scientific Sessions, Virtual June 2021.
7. Gettings J, Patil O, **Vajravelu ME**, Hawkes C, Tuttle A, Buzby M, Crean S, Dever M, Mulligan L, Willi S: 871-P: Integrating the PHQ-A Depression Screening Tool within the Electronic Health Record Increases Detection of Depression Symptoms. Diabetes 70(Supplement 1):-, June 2021. Notes: Poster presentation at American Diabetes Association 81st Scientific Sessions, Virtual June 2021.
8. **Vajravelu ME**, Hitt TA, Amaral S, Katz LE, Lee JM, Kelly A. 21-OR: Real-World Treatment Escalation from Metformin Monotherapy in Youth-Onset Type 2 Diabetes Mellitus: A Retrospective Cohort Study. Diabetes 70(Supplement 1):-, June 2021. Notes: Oral presentation at American Diabetes Association 81st Scientific Sessions, Virtual June 2021.

ABSTRACTS

1. **Vajravelu ME**, Lord K, Givler S, De Leon D: Protein-Induced Hypoglycemia in KATP Hyperinsulinism is Mediated by the GLP-1 Receptor. Pediatric Academic Societies Meeting, Baltimore, MD April 2019: Notes: Oral presentation.
2. **Vajravelu ME**, Kelly A: Variation in type 2 diabetes (T2D) screening across a large pediatric primary care network. Pediatric Academic Societies Meeting, Baltimore, MD April 2019 Notes: Poster presentation.
3. Abaraoha J, **Vajravelu ME**: Family History of Diabetes is Associated with Improved Body Mass Index Z-Score in Adolescents with Prediabetes. Pediatric Academic Societies Annual Meeting, Philadelphia, PA May 2020 Notes: Poster presentation. Conference cancelled.
4. Gettings J, Patil O, **Vajravelu ME**, Hawkes C, Tuttle A, Buzby M, Crean S, Dever M, Mulligan L, Willi S: Integrating the PHQ-A Depression Screening Tool Increases Detection of Depression Symptoms for Youth in the CHOP Diabetes Center Children's Hospital of Philadelphia Quality and Safety Day, Philadelphia, PA 2020 Notes: Poster presentation. Virtual.
5. Danowitz M, Hawkes C, Willi S, **Vajravelu ME**: Associations between the COVID-19 pandemic and glycemic control in pediatric type 1 and type 2 diabetes. Eastern Society for Pediatric Research Annual Meeting; Virtual March 2021 Notes: Oral Poster Presentation.
6. Danowitz M, Hawkes C, Willi S, **Vajravelu ME**: Associations between the COVID-19 pandemic and glycemic control in pediatric diabetes mellitus. Pediatric Endocrine Society 2021 Virtual Annual Meeting April 2021 Notes: Presidential poster award, recognized as one of the top-ranking abstracts submitted by a trainee.
7. Sanchez-Kleinberg Yesenia, Hitt T, Vazquez-Diaz S, Katz L, **Vajravelu ME**: Patient Experiences with Use of Liraglutide for Pediatric Type 2 Diabetes. Pediatric Endocrine Society 2021 Virtual Annual Meeting April 2021 Notes: Presidential Poster (recognized as one of the top-ranking abstracts submitted by a trainee).
8. Said N, **Vajravelu M**, LaBarre J, Lee J. The Reproducibility and Reliability of Insulin Resistance Indices in Children and Adolescents. Pediatric Endocrine Society 2022 Annual Meeting, April-May 2022, online.
9. Patel A, Chu P, **Vajravelu ME**. Association Between Diabetes Risk Perception and Health Behaviors in Adolescents. ObesityWeek 2022 November 2022, San Diego, CA. Notes: Poster presentation.
10. **Vajravelu ME**, Hewitt B, Rodriguez Gonzalez A, Kriska A, Mitchell J, Helgeson V, Amaral S, Arslanian S. Physical Activity in Adolescents and Young Adults (AYA) with Type 2 Diabetes (T2D) or Prediabetes—The Role of Motivation. 83rd Scientific Sessions of the American Diabetes Association June 2023, San Diego, CA. Notes: Poster presentation.
11. Peyyety V, Zupa MF, Hewitt B, Rodriguez Gonzalez A, Mani I, Prioleau T, McCurley J, Lin YK, **Vajravelu ME**. Barriers and Facilitators to Use of Continuous Glucose Monitors for Type 2 Diabetes in Youth. 83rd Scientific Sessions of the American Diabetes Association June 2023, San Diego, CA. Notes: Poster presentation.

PROFESSIONAL ACTIVITIES

TEACHING

Medical Student Teaching:

Date	Role	Title of Session	Type of Learner	Number of Learners	Sessions/Year
2012-2015	Instructor	Pediatric History and Physical Exam Sessions	Medical Students at Perelman School of Medicine, University of Pennsylvania	3	3
2019-2021	Facilitator	Endocrinology Small Group Sessions; Course Director: Dr. Carrie Burns	Medical Students at Perelman School of Medicine, University of Pennsylvania	10/group	1-2
2020	Facilitator	Health Systems Science course small group sessions; Course Director: Dr. Rani Nandiwada	Medical Students at Perelman School of Medicine, University of Pennsylvania	15/group	4
2021	Facilitator	Mini Healthcare Hackathon	MSTP Students, University of Pittsburgh School of Medicine	1 group/7 students	1
2022, 2023	Instructor	Pediatric Advanced Physical Exam Sessions	Medical Students (M1) at University of Pittsburgh School of Medicine	1-2 per session	4

Resident Student Teaching:

Date	Role	Title of Session	Type of Learner	Number of Learners	Sessions/Year
2017	Content expert	"Factitious Hypoglycemia"	Residents and fellows in PICU or ED at Children's Hospital of Philadelphia	10-15	1
2017	Lecturer	"Adrenal Insufficiency in a Nutshell"	Pediatric Residents, Noon Conference, Crozer Chester Medical Center, Upland, PA	20	1
2021	Content expert	"Glycogen Storage Disease Type 1"	Pediatric Interns at Children's Hospital of Philadelphia	45	1

2021, 2023	Lecturer	“Slow Linear Growth”	Philadelphia Pediatric Residents on Endocrinology service, UPMC Children’s Hospital of Pittsburgh	3	1
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Fellow Student Teaching:

Date	Role	Title of Session	Type of Learner	Number of Learners	Sessions/Year
2015- 2018	Lecturer	Combined Pediatric-Adult Endocrine Grand Rounds	Fellows, attendings at Children’s Hospital of Philadelphia Division of Endocrinology & Hospital of University of Pennsylvania Division of Endocrinology	30-50	2-3/year
2019- 2020	Lecturer	“QI versus Research”	Pediatric Endocrinology Fellows, Children’s Hospital of Philadelphia	12	1
2022	Lecturer	“Introduction to Clinical Research”	Pediatric Endocrinology Fellows, UPMC Children’s Hospital of Pittsburgh	9	3

Faculty Development Teaching:

Date	Role	Title of Session	Type of Learner	Number of Learners	Sessions/Year
2017	Lecturer	“Adrenal Insufficiency”	Physician Assistant residents at Children’s Hospital of Philadelphia NICU	5	1

Curriculum Development/Teaching Products:

Date	Title of Curriculum/Product	Explanation
2018	Quality Improvement Curriculum, Pediatric Endocrinology Fellowship at Children’s Hospital of Philadelphia	As QI Director for the Division, I developed a series of lectures and project milestones for pediatric endocrinology fellows at CHOP to satisfy ACGME requirements.
Published May 2021	Clinical Pathway, Children’s Hospital of Philadelphia: Inpatient and Outpatient Specialty Care Clinical Pathway for Peri-operative	Over approximately 9 months, I worked with a multidisciplinary team to develop guidelines for clinical use at CHOP. Co-authors: E. Mancilla, MD; L. Katz, MD; V.

	Management of Hypocalcemia in Children with 22q11.2 Deletion/Duplication	Bamba, MD; M. Vajravelu, MD ; A. Weintraub, MD; D. McDonald-McGinn, MS, CGC; T. Dea, CRNP; J. Zook, PharmD; T. Crowley
Published March 2021	Clinical Pathway, Children's Hospital of Philadelphia: PICU Clinical Pathway for Known or Suspected Central Diabetes Insipidus (DI)	Over approximately 3 years, I worked with a multidisciplinary team to develop guidelines for clinical use at CHOP. Co-authors: M. Kirschen, MD; M. Vajravelu, MD ; K. Lord, MD; V. Srinivasan, MD; K. Resendiz Trujano, PharmD; R. Hunter, MD; A. Grachen, PharmD
Updated 2019, 2020	Clinical Pathway, Children's Hospital of Philadelphia: Emergency Department Clinical Pathway for Evaluation/Treatment of Children with Suspected Diabetic Ketoacidosis (DKA)	I worked with a multidisciplinary team to update guidelines for clinical use at CHOP. Co-authors: V. Srinivasan, MD; K. Lord, MD; C. Jacobstein, MD; S. Gaines, RN; J. Lavelle, MD; A. Ackerman, MD; M. Vajravelu, MD ; T. Kaushal, MD
Updated May 2017, December 2019	Clinical Pathway, Children's Hospital of Philadelphia: Emergency Department Clinical Pathway for Evaluation/Treatment of Children with Type 1 Diabetes Mellitus (DM) and Acute Illness	I worked with a multidisciplinary team to update guidelines for clinical use at CHOP. Co-authors: A. Ackerman, MD, K. Lord, MD, S. Gaines, RN, C. Jacobstein, MD, N. Patel, PharmD, M. Kilberg, MD, M. Vajravelu, MD , J. Lavelle, MD
Published March 2019	Clinical Pathway, Children's Hospital of Philadelphia: Inpatient and Outpatient Specialty Care Clinical Pathway for Calcium Management in Children Undergoing Total Thyroidectomy	Over approximately 9 months, I worked with a multidisciplinary team to develop guidelines for clinical use at CHOP. Co-authors: Lord, K. MD; Bauer, A. MD; Vajravelu, M. MD ; Kivel, C. CRNP; Hoffman, J. MBA; Giordano, T. DNP; Samuels, S. MD; Smith, T. CRNP; Drill, A. CRNP; Dezzi, M. CRNP; Kroeplin, G. CRNP; Durkin, M., RN; Lippold, C. RN

Mentoring:

Date	Mentor Role	Mentee	Context	Mentee Achievements
2019	Primary Mentor	Joanna Abaraoha	NIDDK Summer Medical Student Program, University of Pennsylvania	Retrospective cohort study of type 2 diabetes screening in regional pediatric practices; results accepted for poster presentation at Pediatric Academic Societies Annual Conference 2020
2020-2021	Primary Mentor	Yesenia Sanchez-Kleinberg, MD, Pediatric Resident at the Children's Hospital of Philadelphia.	QI Project: Patient Perspectives About Use of Victoza	Completed semi-structured interviews with patients and caregivers about use of a recently-approved medication for pediatric type 2 diabetes. Presented at Presidential Poster Session at Pediatric Endocrine Society Meeting 2021. Accepted to CHOP's Pediatric

2020-2021	Thesis Committee Chair, mentor	Talia Hitt, MD, MPH, Pediatric Endocrinology Fellow at Children's Hospital of Philadelphia	University of Pennsylvania's Master of Science in Health Policy (MSHP) Research program	Endocrinology Fellowship. Project: Provider Perceptions of Liraglutide Prescribing in Pediatric Type 2 Diabetes. Dr. Hitt graduated from the MSHP program in 2021 as scheduled and presented our findings at the 2021 American Diabetes Association Scientific Sessions.
2020-2021	Mentor	Layla Abdulla, medical student	Elizabeth Blackwell Society (EBS) mentorship program at Perelman School of Medicine at the University of Pennsylvania	EBS is a student run group dedicated to highlighting the accomplishments of women in medicine, addressing the unique lifestyles women in medicine face, and fostering relationships between faculty and students. I met with Layla several times throughout her first year of medical school.
2020-2023	Co-mentor	Emma Edmondson, MD, Pediatric Resident, Children's Hospital of Philadelphia	Pediatric endocrine expertise for project involving adolescents with type 2 diabetes transitioning to adult care	Dr. Edmondson was awarded a <i>2021 Academic Pediatric Association Young Investigator Award</i> for her project, "Emerging Adults with Type 2 Diabetes: Understanding Illness Experience and Transition to Adult Care"
2022-	Mentor	Vaishnavi Peyyety, Undergraduate student and Temple Medical Scholar at Washington and Jefferson College	Summer research experience in 2022, 2023	Projects: 1) Qualitative study of attitudes about use of continuous glucose monitors in adolescents with type 2 diabetes; <i>accepted for poster presentation at 83rd Scientific Sessions of American Diabetes Association; (2023); recipient of Trelka Award for Life Sciences Research (2023)</i> ; 2) Evaluating social risk factors in adolescents and young adults with prediabetes; <i>recipient of Merck Internships for Excellence in Science (2023)</i>
2022-2023	Mentor	Arya Patel, Undergraduate student at University of Pittsburgh	Pre-medical school research, clinical shadowing	Project: Study of relationship between diabetes risk perception and health behaviors in adolescents with overweight/obesity surveyed by the US National Health and Nutrition Examination Survey; <i>accepted for poster presentation at ObesityWeek</i>

2022 and published in JAMA Network Open in 2023

2022-	Mentor	Patricia Chu, MD, pediatric and adult endocrinology fellow, Children’s Hospital of Philadelphia and University of Pennsylvania	University of Pennsylvania’s Master of Science in Clinical Epidemiology (MSCE) Research program	Thesis Project: National Trends in Use of Glucagon-Like 1-Peptide Receptor Agonist Medication in Youth with Obesity and Type 2 Diabetes
2022-	Mentor	Adriana Rodriguez Gonzalez, MD, pediatric endocrinology fellow, UPMC Children’s Hospital of Pittsburgh	Fellowship scholarly project	Project: Use of Continuous Glucose Monitors for Pediatric Type 2 Diabetes Risk Evaluation <i>Recipient of 2022 Endocrine Fellows Foundation Award</i>
2023-	Mentor	Rawan Elrajabi MD, pediatric endocrinology fellow, UPMC Children’s Hospital of Pittsburgh	Fellowship scholarly project	Project: Phenotyping Eating Behaviors in Youth with Suspected Monogenic Obesity

RESEARCH

Current Grant Support:

Grant Number	Grant Title	Role	Years	Source \$
1K23DK125719	Behavioral Economics for Activity Motivation in Adolescents and Young Adults with Prediabetes and Type 2 Diabetes	PI	7/2020-4/2024	NIH NIDDK, \$165,292/annual direct costs, 75% effort
MR2013-57327	NAFLD and PCOS in Adolescent Girls with Obesity	PI	2/2022-2/2023	The Pittsburgh Foundation, W. Clyde and Ida Mae Thurman Fund
N/A	Continuous Glucose Monitoring for Type 2 Diabetes Risk Evaluation in Children and Adolescents	PI	11/2022-10/2024	Tanner Scholar Advancing Equity Award, \$35,000 direct costs

Pending Grant Support: none

Prior Grant Support:

Grant Number	Grant Title	Role	Years	Source \$
5K12DK094723-07	Career Development Program in Pediatric Diabetes Research (K12)	Scholar (PI: Steven Willi)	7/2018-6/2020	NIH NIDDK, \$90,000/annual direct costs, 75% effort
Endocrine Fellows Foundation Research Grant	Effects of Continuous Enteral Dextrose on Feeding, Growth, and Gut Microbiome in Infants and Children with Hyperinsulinism	Lead investigator (PI: Diva De Leon)	12/2016-11/2017	Endocrine Fellows Foundation, \$5,000/annual direct costs, 80% effort
T32DK07314 (Diversity supplement)	Diabetes, Endocrine, and Metabolism	Trainee investigator (PI: Anne Cappola)	7/2016-6/2018	NIH NIDDK, 80% effort
5T35HL082544-04	Research Training in Heart, Lung, Blood & Sleep Diseases	Trainee investigator (PI: Lourdes Prieto)	6/2009-8/2009	NIH NHLBI, 100% effort during 8 week program

Journal refereeing:

2017-Present	Reviewer	JAMA Pediatrics
2018-Present	Reviewer	Journal of Clinical Medicine Research
2019-Present	Reviewer	Annals of Medicine
2020-Present	Reviewer	Endocrinology, Diabetes & Metabolism
2020-Present	Reviewer	The Journal of Pediatrics
2020-Present	Reviewer	Hormone Research in Paediatrics
2020-Present	Reviewer	Pediatrics
2020-Present	Reviewer	The Journal of Clinical Endocrinology & Metabolism
2020-Present	Reviewer	Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy
2021-Present	Reviewer	JMIR Research Protocols
2021-Present	Reviewer	JMIR Pediatrics and Parenting
2022-Present	Reviewer	The Lancet Regional Health – Americas
2022-Present	Reviewer	Frontiers in Endocrinology
2022-Present	Reviewer	Digital Health
2022-Present	Reviewer	Journal of Telemedicine and Telecare
2022-Present	Reviewer	Frontiers in Nutrition
2022-Present	Reviewer	mHealth
2022-Present	Reviewer	JMIR Human Factors

LIST OF CURRENT RESEARCH INTERESTS

- Pediatric type 2 diabetes mellitus
- Pediatric obesity
- Health services research
- Mobile Health (mHealth) and digital health technologies
- Behavioral Economics
- Health equity

INVITED SEMINARS AND LECTURESHIPS**Local Presentations**

Date	Title	Sponsoring Institution	Location
2017	Reducing Hypoglycemia in At-Risk Newborns	Fellowship Association Quality Improvement Works in Progress; The Children's Hospital of Philadelphia	Philadelphia, PA
2017	Reducing Hypoglycemia in At-Risk Newborns	Research in Progress, Fellowship in Healthcare Improvement and Patient Safety; The Children's Hospital of Philadelphia	Philadelphia, PA
2017	Celiac disease screening in Type 1 Diabetes	Research in Progress for Master of Science in Health Policy candidates; University of Pennsylvania	Philadelphia, PA
2020	Pediatric Nephrology Grand Rounds: "Diabetes After Kidney Transplant"	Children's Hospital of Philadelphia Division of Nephrology	Philadelphia, PA
2020	"Management of Pediatric Type 2 Diabetes"	Diabetes Center for Children, Children's Hospital of Philadelphia	Philadelphia, PA
2021	"Using Behavioral Insights and Real-World Data to Improve Care for Pediatric Type 2 Diabetes"	UPMC Children's Hospital of Pittsburgh, Friday Lecture Series; Division of Pediatric Endocrinology, Diabetes & Metabolism	Pittsburgh, PA
2021	"Using Behavioral Insights and Real-World Data to Improve Care for Pediatric Type 2 Diabetes"	UPMC Children's Hospital of Pittsburgh, CHATTER Health Services Research Seminar	Pittsburgh, PA
2022	"Using <i>Quantitative</i> and <i>Qualitative</i> Data to Understand and Improve Our Patients' Lived Experiences with Diabetes Mellitus"	UPMC Children's Hospital of Pittsburgh, Friday Lecture Series; Division of Pediatric Endocrinology, Diabetes & Metabolism	Pittsburgh, PA

2023	"Uncovering and Addressing Inequities in Pediatric Diabetes"	Race &... Lecture Series, University of Pittsburgh	Pittsburgh, PA
2023	"Tackling Youth-Onset Type 2 Diabetes: From the Individual to Society"	University-Wide Endocrine Lecture, University of Pittsburgh	Pittsburgh, PA

Regional Presentations

Date	Title	Sponsoring Institution	Location
May 2018	Incidence and Risk of Celiac Disease in Individuals with Type 1 Diabetes: A Population-Based Cohort Study Using The Health Improvement Network Database	Philadelphia Endocrine Society	Philadelphia, PA
April 2020, April 2023	Applying Behavioral Economic Concepts for Health Promotion	Health Psychology graduate course, La Salle University, Dr. Nataliya Zelikovsky course director	Philadelphia, PA (virtual)
May 2021	Type 2 Diabetes in Youth: Who's at Risk, How to Screen, and What to Do	Children's Hospital of Philadelphia Virtual Professional Events Series for Primary Care Pediatricians	Virtual
January 2022	Using Behavioral Insights and Real-World Data to Improve Care for Pediatric Type 2 Diabetes	Master of Science in Health Policy Research-In-Progress Seminar, University of Pennsylvania	Philadelphia, PA (virtual)
April 2022	Inadequate Clean Drinking Water: Downstream Effects	The Pittsburgh Study, Environmental Justice Summit on Water	Pittsburgh, PA

National Presentations

Date	Title	Sponsoring Institution	Location
April 2020	"Real versus Ideal: Aiming for Effectiveness, Value, and Scalability"	Division of Pediatric Endocrinology, Diabetes, and Metabolism, University of Michigan	Ann Arbor, MI (virtual due to COVID19 pandemic)
July 2020	"New-Onset Diabetes after Transplantation"	Pediatric Academic Societies Annual Meeting	Philadelphia, PA (presented virtually)
March 2024	Title TBD, Health Services Research and Pediatric Type 2 Diabetes; George E. Bacon Lecture in Pediatric Endocrinology, including Grand Rounds for Department of Pediatrics	Division of Pediatric Endocrinology and Department of Pediatrics, University of Michigan School of Medicine	Ann Arbor, MI

International Presentations

Date	Title	Sponsoring Institution	Location
September 2022	“Engaging the Content Experts: Eliciting End-User Perspectives to Develop and Refine an mHealth Intervention to Increase Physical Activity in Adolescents with Prediabetes and Type 2 Diabetes”	International Society for Research on Internet Interventions (ISRII) 11 th Annual Meeting	Pittsburgh, PA, USA
August 2023	“Projected Impact of Weight-Loss Medication Use on Racial-Ethnic Disparities in Adolescent Obesity”	ISPE 39 th International Conference on Pharmacoepidemiology & Therapeutic Risk Management	Halifax, Nova Scotia, Canada

SERVICE**University and Medical School Service**

Date	Role	Context
2017	Judge	Research Institute Summer Scholars Program Poster Day, Children’s Hospital of Philadelphia
2017-2018	Member	Program Evaluation Committee, Pediatric Endocrinology Fellowship, The Children’s Hospital of Philadelphia
2017-2021	Member	Scientific Review Committee for Children’s Hospital of Philadelphia Divisions of Endocrinology & Nephrology; reviewed research protocols prior to submission to IRB
2017-2021	Applicant interviewer	Pediatric Endocrinology Fellowship, Children’s Hospital of Philadelphia
2018-2021	Director of Quality Improvement	Division of Endocrinology and Diabetes, Children’s Hospital of Philadelphia
2018-2021	Member	Physician Wellbeing Committee, Division of Endocrinology and Diabetes, Children’s Hospital of Philadelphia
2019	Organizer	Quality Improvement Retreat, Division of Endocrinology & Diabetes, Children’s Hospital of Philadelphia
2019-2021	Applicant interviewer	Pediatric Residency Program, Children’s Hospital of Philadelphia
2020-2021	Member	Diabetes Executive Committee, Diabetes Center for Children, Children’s Hospital of Philadelphia
2021-2021	Member	Admissions Committee for Masters Program, Center for Healthcare Improvement and Patient Safety at the University of Pennsylvania
2022-	Faculty facilitator	University of Pittsburgh School of Medicine Pediatrics Advanced Physical Exam course for pre-clinical medical students, Spring and Fall Sessions
2022-	Applicant interviewer	Pediatric Endocrinology Fellowship, UPMC Children’s Hospital of Pittsburgh

2022-	Applicant interviewer	Pediatric Residency Program, Pediatric Scientist Development Program, UPMC Children's Hospital of Pittsburgh
2023-	IRB Member	Standing committee member of University of Pittsburgh Institutional Review Board; monthly meetings

Regional Service

Date	Role	Context
2017-2021	Member	Eastern Society of Pediatric Research

National Service

Date	Role	Context
2016-Present	Member	Quality Improvement Committee, Pediatric Endocrine Society
2021 (February, March)	Faculty facilitator	PedsEndo Fellow 365 Webinar for Pediatric Endocrine Society; facilitated session for fellows, titled "How to Design an Impactful Quality Improvement Project"; held twice virtually
2022-2025	Committee Member	American College of Sports Medicine (ACSM) Exercise is Medicine Pediatric Committee
2022-	Member	SPROUT (Supporting Pediatric Research on Outcomes and Utilization of Telehealth)
2023	Session Chair	American Diabetes Association 83 rd Scientific Sessions: "Improving Outcomes for Adolescents with Type 2 Diabetes"
2023-2025	Early Career Representative	American Diabetes Association, Public Health & Epidemiology Leadership Team
2023	Reviewer	NIH Grant Review for Health Services Research Special Emphasis Panels (March and July 2023)