

Gregory P. Forlenza, MD, MS
Curriculum Vitae

Biographical Sketch

Current Position

Associate Professor of Pediatrics, Barbara Davis Center, Division of Pediatric Endocrinology, Department of Pediatrics, University of Colorado Denver; Director of Pediatric Diabetes Technology Research

Professional Address

1775 Aurora CT

MS A140

Aurora, CO 80045

Email: gregory.forlenza@cuanschutz.edu

Phone: 303-724-2323

Fax: 303-724-6779

Education

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Georgia Institute of Technology, Atlanta, GA	BS	05/2003	Chemistry
University of Florida, Gainesville, FL	MD	05/2007	Medicine
University of Florida, Gainesville, FL	Resident	06/2010	Pediatrics
University of Colorado Denver, Denver, CO	Fellow	06/2011	Pediatric Endocrinology
University of Minnesota, Minneapolis, MN	MS	06/2015	Clinical Research
University of Minnesota, Minneapolis, MN	Fellow	06/2015	Pediatric Endocrinology

Academic Appointments

2011-2013	Assistant Professor, Division of General Pediatrics, Department of Pediatrics, University of Florida College of Medicine, Gainesville, FL
2015-2021	Assistant Professor, Barbara Davis Center, Division of Pediatric Endocrinology, Department of Pediatrics, University of Colorado Anschutz Medical Campus, Aurora, CO
2021-present	Associate Professor, Barbara Davis Center, Division of Pediatric Endocrinology, Department of Pediatrics, University of Colorado Anschutz Medical Campus, Aurora, CO Director of Pediatric Diabetes Technology Research

Honors, Special Recognitions and Awards

2007	Research Honors, University of Florida College of Medicine
2010	Outstanding Resident Teacher in Pediatrics, University of Florida College of Medicine
2012	Excellence in Customer Service Key, University of Florida College of Medicine
2014	Pediatric Endocrine Society - Competitive Travel Grant Award
2014	CAPER Pancreas Fest - Competitive Travel Grant Award
2015	Hostetter Award for Most Outstanding Research by a Fellow – University of Minnesota Pediatric Research, Education, and Scholarship Symposium (PRESS)
2017	American Diabetes Association - Young Investigator Travel Award
2019	International Society for Pediatric and Adolescent Diabetes - Young Investigator Award
2023	University of Colorado Pediatric Endocrinology Fellowship – Outstanding Faculty Teacher

Membership in Professional Organizations

2010-present American Academy of Pediatrics
 2013-present Pediatric Endocrine Society (Membership Committee 2014-2017)
 2013-present The Endocrine Society
 2014-present American Diabetes Association
 2015-present The Society for Pediatric Research (elected)
 2017-present International Society for Pediatric and Adolescent Diabetes
 2019-present Association of Diabetes Care and Education Specialists

Major Committee and Service Responsibilities

Community Service

2003-2010 Florida Camp for Children and Youth with Diabetes – Counselor
 2012-2013 Florida Camp for Children and Youth with Diabetes – Supervising Physician
 2013-2015 Camp Needlepoint for Adolescents with Diabetes – Supervising Physician
 2017-present Camp Colorado Diabetes Camp – Senior Medical Staff Physician

Departmental

2017-present Clinical Care Task Force, Barbara Davis Center - Member
 2017-2023 Empowering Patients for Individualized Care (EPIC) Conference – Co-Chair for organizing committee
 2019-2021 Barbara Davis Center Grand Rounds and Morbidity and Mortality Conference organizing chair
 2021-present Barbara Davis Center Pediatric Research Committee – Member
 2023-present Practical Ways to Achieve Targets in Diabetes Care (ATDC) Keystone Conference – Organizing Committee Member

University

2012-2013 Pediatric Obesity Center of Excellence Development Committee, University of Florida - Member
 2013-2015 Chronic Pancreatitis Working Group, University of Minnesota – Member
 2021-present Clinical Translational Research Advisory Committee – BDC Representative

Hospital

2013-2015 Acute Care Diabetes Advisory Committee, University of Minnesota Hospitals – Member
 2018-2020 Insulin Safety Committee, Children’s Hospital Colorado – Artificial Pancreas Advisor
 2018-present Multidisciplinary Pancreatitis Working Group, Children’s Hospital Colorado – Founding Member

State

2016-present Colorado Kids with Diabetes Consensus School Guidelines for Diabetes Therapy – Diabetes Technology Advisor

National

2014-2017 Pediatric Endocrine Society Membership Committee – Member
 2017 The Endocrine Society Pediatric Therapeutic Continuous Glucose Monitoring Task Force – Committee Member

2019-present	American Diabetes Association Annual Scientific Sessions Pediatric Diabetes content committee - member
2020	IDEA 2.0 American Association of Clinical Endocrinologists CGM Education Committee – Pediatric CGM content advisor
2021-present	AADE National Coverage Determination for Insulin Pumps and CGMs Advisory Committee – Member and Pediatric Advisor
2023	ISPAD Annual Scientific Sessions Planning Committee - Member

Licensure and Board Certification

Medical Licenses

2010-present Colorado Medical License

Board Certification

2010 American Board of Pediatrics, General Pediatrics
 2017 American Board of Pediatrics, Pediatric Endocrinology

Review and Referee Work

Journal Editorship

2020-2023 Pediatric Diabetes – Associate Editor
 2023-present Diabetes Technology and Therapeutics – Associate Editor

Journal Editorial Board

2019-2023 Diabetes Technology and Therapeutics

Ad hoc Manuscript Reviewer

2011-2012 American Family Physician
 2011-present Diabetes Technology and Therapeutics
 2014-2015 Childhood Obesity
 2015-present Diabetes Science and Technology
 2016 American Journal of Ophthalmology
 2016-present Sensors
 2017-present Diabetes Care
 2017-present Pediatric Diabetes
 2017-present PLOS One
 2017-present Lancet Diabetes and Endocrinology
 2019-present Diabetes, Obesity, and Metabolism

Invited Extramural Lectures, Presentations, and Visiting Professorships

Local

1. University of Florida Grand Rounds, “Multiple Manifestations of Multisystem Mitochondrial Maladies,” Gainesville, FL 2010
2. University of Colorado Endocrinology Grand Rounds, “An Interesting Case of Polyuria,” Denver, CO 2011
3. Children’s Diabetes Foundation Guild, “Update on Artificial Pancreas Technology 2016,” Denver, CO 2016
4. University of Colorado Nursing Lecture Series, “Hemoglobin A1c,” Denver, CO 2017

5. Barbara Davis Center Research in Progress, "Update on Artificial Pancreas Research," Denver, CO 2017
6. Colorado Optimist Club, "Diabetes Technology in 2017," Denver, CO 2017
7. Colorado Association of School Nurses, "An Update on Diabetes Technology: Closed Loop, PLGS, and Pumps," Denver, CO 2018
8. Barbara Davis Center Research in Progress, "Artificial Pancreas Research at the Barbara Davis Center – Update for 2018" Denver, CO 2018
9. University of Colorado Endocrine Division Grand Rounds, "Diabetes Technology in 2019: The Rapidly Changing Field of Continuous Glucose Monitors and Artificial Pancreas Systems," Denver, CO 2019
10. Endocrine Division Educational Conference, "CGM in Non-T1D Patients," Denver, CO 2021.
11. Colorado School Nurse Educational Series, "Diabetes Technology Update 2021," Denver, CO 2021
12. Barbara Davis Center Research in Progress Series, "Optimizing Success with Hybrid Closed Loop Technology in Children with Type 1 Diabetes," Denver, CO 2021.
13. Colorado Springs Educational Talk, "Type 1 Diabetes Technology Update 2022," Virtual, CO, 2022.
14. Barbara Davis Center Grand Rounds, "Development, Testing, and Approval of Omnipod 5: From Academic Project to Real-World Use," Virtual, 2022.
15. Barbara Davis Center Fellowship Lecture Series, "Fellows Technology Update Summer 2022," Denver, CO, 2022.
16. University of Colorado Grand Rounds, "From Concept to Clinical Practice: How Technology Reduces Burden and Improves Care for Children with Type 1 Diabetes," Denver, CO, 2023

Regional

1. University of Minnesota PRESS Conference, "Near Euglycemia can be achieved safely in pediatric total pancreatectomy islet auto-transplant recipients using an adapted intravenous insulin infusion protocol," Minneapolis, MN 2014
2. University of Minnesota PRESS Conference, "Success of Artificial Pancreas Use in Patients after TPIAT," Minneapolis, MN 2015
3. Western Association for Vitreoretinal Education/Ocular Imaging Conference (WAVE/OIC) Meeting, "Artificial Pancreas Technology in 2013," Maui, Hawaii 2013
4. WAVE/OIC Meeting, "Artificial Pancreas Technology in 2015," Maui, Hawaii 2015
5. Pediatric Endocrinology Nursing Society, "Islet Cell Allo-Transplantation," Denver, CO 2016
6. Diabetes Symposium for the Medical College of Wisconsin, "Artificial Pancreas Technology in 2017: The Dawn of the Automated Insulin Delivery Paradigm," Milwaukee, WI 2017
7. Practical Ways to Achieve Targets in Diabetes Care Conference, "More Than 1 Year of Hybrid Closed Loop in Pediatrics," Keystone, CO, 2017.
8. Practical Ways to Achieve Targets in Diabetes Care Conference, "Future Artificial Pancreas Systems," Keystone, CO, 2019.
9. Cedars Sinai Pediatric Grand Rounds, "Use of Technology to Improve management of Pediatric Diabetes," Virtual Talk, 2021.
10. Georgia Chapter of AACE Regional Conference, "The Latest on CGM, Insulin Pumps, and Hybrid Closed Loop Systems," Virtual Talk, 2021.
11. Practical Ways to Achieve Targets in Diabetes Care Conference, "Customizable AP Systems," Virtual Talk, 2021.
12. Diabetes Dialog Conference, "Future of Hybrid Closed Loop Systems," Denver, CO 2021.
13. Diabetes Dialogue, "New and Emerging Continuous Glucose Monitors in 2022," Denver, CO, 2022.

National

1. American Diabetes Association Annual Scientific Sessions, oral abstract presentation, "Inpatient Safety and Feasibility of the Tandem Predictive Low Glucose Suspend (PLGS) Insulin Pump," San Diego, CA, 2017.
2. American Diabetes Association Annual Scientific Sessions, oral abstract presentation, "Overnight to Early Morning Glycemic Outcomes in Children Using the MiniMed 670G System," Orlando, FL, 2018.

3. American Diabetes Association Annual Scientific Sessions, invited platform presentation, "Monitoring Glycemia in Youth with Type 1 Diabetes Mellitus – Meter Blood Glucose, Continuous Glucose Monitoring, or Both?" Orlando, FL, 2018.
4. American Diabetes Association Annual Scientific Sessions, invited platform presentation, "Continuous Glucose Monitor Use in Hospital Settings," Chicago, IL, 2020.
5. Pediatric Academic Society Annual Meeting, "The Changing Role of Diabetes Providers," Virtual Talk, 2021.
6. Medscape Advanced Therapy for Diabetes Conference Encore, "Automated Insulin Delivery with Dexcom CGM," Virtual Talk, 2021.
7. American Diabetes Association Annual Scientific Sessions, invited platform presentation, "Challenges and Benefits of Technology Use in High-Risk Youth Populations," New Orleans, LA, 2022.
8. American Diabetes Association Annual Scientific Sessions, invited platform presentation, "The Insulin-Only Bionic Pancreas Trial: The iLet Bionic Pancreas and Study Design," New Orleans, LA, 2022.
9. Endocrine Society Annual Conference, "Automated Insulin Delivery: The Future is Now," Atlanta, GA, 2022.
10. American Academy of Family Physicians Lecture Series, "Type 1 Diabetes – Pediatric," Virtual, 2022.

International

1. Advanced Technologies and Treatments for Diabetes International Conference, "Evaluation of the MiniMed 670G System Predictive Low Glucose Management Feature in Children," Vienna, Austria, 2018
2. Advanced Technologies and Treatments for Diabetes International Conference, "ADVICE4U Pro Study – Decision Support Systems for Health Care Professionals: How Advisor Pro Works," Berlin, Germany, 2019
3. International Society for Pediatric and Adolescent Diabetes Conference, "Advice4U: Results of a Multinational Multicenter Study," Boston, MA, 2019 (*Invited*).
4. Advanced Technologies and Treatments for Diabetes International Conference, "Clinical Implementation and Utilization of Hybrid Closed-Loop Technology," Madrid, Spain, 2020 (*Invited*).
5. Advanced Technologies and Treatments for Diabetes International Conference, "Omnipod 5: Unique Features and Clinical Benefits of Tubeless Automated Insulin Delivery," Virtual Talk, 2021.
6. Rethinking "Candidate Selection" for Control-IQ Hybrid Closed Loop Technology, EASD Scientific Sessions, Virtual Talk, 2021.
7. Safety Evaluation of the Omnipod 5 Automated Insulin Delivery System over 3 Months of Use in Adults and Children with Type 1 Diabetes, EASD Scientific Sessions, Virtual Talk, 2021.
8. Advanced Technologies and Treatments for Diabetes International Conference, "Predicting 12-Month Success with a Second-Generation Hybrid Closed Loop (HCL) Artificial Pancreas System," Barcelona, Spain, 2022.
9. European Association for the Study of Diabetes, "Glycemic Outcomes over 15 Months with the Omnipod 5 Automated Insulin Delivery System," Stockholm, Sweden, 2022.
10. European Association for the Study of Diabetes, "Recently Diagnosed with Type 1 Diabetes: Glycemic Outcomes with the Omnipod 5 Automated Insulin Delivery System," Stockholm, Sweden, 2022.
11. Advanced Technologies and Treatments for Diabetes International Conference, "Real-World Data on Hybrid Closed-Loop in Type 2 Diabetes," Florence, Italy, 2024.

Teaching Record

Major Presentations

Presentations to Medical Students

1. University of Colorado Pediatric Interest Group, "What it's like working as a general pediatrician and pediatric sub-specialist," 2017

Presentations to Residents and Fellows

1. University of Florida Noon Conference, "Eating Related Disorders in Pediatrics," 2009
2. University of Florida Intern Lecture Series, "Type 1 Diabetes," 2009
3. University of Colorado Fellowship Lecture Series, "Update on Type 1 Diabetes Epidemiology," 2011
4. University of Florida Pediatric Resident Lecture Series, "Reading a Growth Chart," 2011
5. University of Florida Family Medicine Lecture Series, "Well Child Care Guidelines," 2011
6. University of Florida Family Medicine Lecture Series, "Infant Feeding Guides," 2011
7. University of Florida Pediatric Resident Lecture Series, "Pediatric Obesity and Type 2 Diabetes," 2012
8. University of Minnesota Research in Progress Series, "Artificial Pancreas in Patients after TPIAT," 2014
9. University of Minnesota Fellowship Lecture Series, "Drug Induced Diabetes," 2015
10. University of Minnesota Fellowship Lecture Series, "Progress towards an Artificial Pancreas." 2015
11. University of Colorado Fellowship Lecture Series, "Drug Induced Diabetes," 2016-2022
12. University of Colorado Fellowship Lecture Series, "Updated on Diabetes Technology," 2016-2022

Morbidity and Mortality Conferences

1. University of Florida Morbidity and Mortality Conference, "Postprandial hypoglycemia in Children after Nissen Fundoplication," 2009
2. University of Minnesota Morbidity and Mortality Conference, "An Unusual Case of Headaches: Early Presentation of Autoimmune Hypophysitis," 2015
3. Barbara Davis Center Morbidity and Mortality Conference, "DKA with Hypokalemia," 2017
4. Barbara Davis Center Morbidity and Mortality Conference, "Suicide with HCL AP," 2019
5. Barbara Davis Center Morbidity and Mortality Conference, "COVID-19 in the Type 1 Diabetes Population, what is the evidence showing us?" 2021

Wards and Clinic Attending Duties

Outpatient Service

- 2 half-days per week: diabetes clinic at BDC
- 2 half-days per month: telemedicine with patients in Grand Junction, CO
- 1 half-day per month: COMPLETE Kids Multidisciplinary Pancreatitis clinic
- 1 day every other month supervise fellows' clinic for 2-3 fellows

Inpatient Service

- 6 weeks per year including 3 weekends per year: Provide consulting care to hospitalized children with type 1 diabetes and hospitalized children with hyperglycemia. See new onset T1D patients in clinic at BDC for outpatient education. Outside consulting calls from pediatricians and other hospitals.
 - Precept Pediatric Endocrinology fellows on rounds at Children's Hospital Colorado and serve as backup for overnight calls.

Other Educational Activities

2012-2013	University of Florida Second Year Medical Student Introductions to Pediatrics – Course Director
2013-2015	University of Minnesota Pediatric Endocrinology Case Conferences for Medical Students – Small Group Leader and Speaker
2015-present	University of Colorado Pediatric Endocrinology Small Groups for Second Year Medical Students – Small Group Leader for growth and puberty workshops
2015-present	University of Colorado Pediatric Endocrinology Residency Half-Day – Small Group Leader

- 2015-present University of Colorado Pediatric Endocrinology Fellowship Lecture Series – Present 2-3 sessions per year
- 2015-present University of Colorado Pediatric Endocrinology Fellows Continuity Clinic – Precept fellows clinic 6 times per year
- 2019-2021 Director of the Barbara Davis Center Grand Rounds and Morbidity and Mortality conference series
- 2021-present University of Colorado Clinical Trials Research Advisory Committee – BDC Representative

Trainees and Mentees

Undergraduate Students

1. Aria Saunders – Undergraduate Biomedical Engineering Student 2019
 Project: MiniMed 670G Hybrid Closed Loop Artificial Pancreas System for the Treatment of Diabetes Mellitus: Overview of Its Safety and Efficacy
 Role: Faculty mentor for undergraduate biomedical engineering summer research student.
 Publication: **Saunders A**, Messer LH, Forlenza GP. MiniMed 670G Hybrid Closed Loop Artificial Pancreas System for the Treatment of Type 1 Diabetes Mellitus: Overview of Its Safety and Efficacy. Expert Rev Med Devices. 2019. Epub 2019/09/22. doi: 10.1080/17434440.2019.1670639. PubMed PMID: 31540557.
2. Kasserine Taylor – Undergraduate Student 2019-2020
 Project: Use of machine learning and hybrid closed loop systems at diabetes camps
 Role: Faculty mentor for pre-medical undergraduate student.
 Publication: **Taylor KA**, Forlenza GP. Use of Machine Learning and Hybrid Closed Loop Insulin Delivery at Diabetes Camps. Diabetes technology & therapeutics. 2020. Epub 2020/02/15. doi: 10.1089/dia.2020.0026. PubMed PMID: 32058821.
3. Carson Wedding – Undergraduate Quantitative Biology Student 2023-2024
 Project: Pattern recognition in type 1 diabetes technology data
 Role: Faculty mentor

Medical Students

1. Indira Sriram, PhD – Medical Student 2015-2018
 Role: Faculty advisor to medical student
2. Marisa Sobczak – Medical Student 2021
 Project: Glycemic Control in Relation to Technology Use in a Single Center Cohort of Children with Type 1 Diabetes
 Role: Project advisor
 Publication: Sawyer A, **Sobczak M**, Forlenza GP, Alonso GT. Glycemic Control in Relation to Technology Use in a Single Center Cohort of Children With Type 1 Diabetes. Diabetes technology & therapeutics. 2022. Epub 20220131. doi: 10.1089/dia.2021.0471. PubMed PMID: 35099306.

Residents

1. Elizabeth Mann, MD – Pediatric Resident 2013-2015
 Project: QI Project. Improvements in Training for Diabetes Camp. University of Minnesota Camp Needlepoint
 Role: During fellowship provided mentorship to a pediatric resident with an interest in pediatric endocrinology on a QI project to improve training of volunteers and counselors at Camp Needlepoint.
3. Indira Sriram, MD, PhD – Pediatric Resident 2019-2022
 Role: Career advisor to pediatric resident
4. Alexandra Sawyer, MD – Pediatric Resident 2021
 Project: Glycemic Control in Relation to Technology Use in a Single Center Cohort of Children with

Type 1 Diabetes

Role: Project advisor

Publication: **Sawyer A**, Sobczak M, Forlenza GP, Alonso GT. Glycemic Control in Relation to Technology Use in a Single Center Cohort of Children With Type 1 Diabetes. *Diabetes technology & therapeutics*. 2022. Epub 20220131. doi: 10.1089/dia.2021.0471. PubMed PMID: 35099306.

5. James Schuler, MD – Pediatric Resident 2022-2025
Role: Faculty Advisor

Fellows

1. Jenna Sopfe, MD – Pediatric Heme/Onc Fellow 2015-2018
Project: Prospective and retrospective analysis of malglycemia in the pediatric bone marrow transplant population
Role: Primary faculty mentor for Dr. Sopfe's fellowship projects and Masters of Clinical Research projects.
Publications:
 - **Sopfe J**, Pyle L, Keating AK, Campbell K, Liu AK, Wadwa RP, Verneris MR, Giller RH, Forlenza GP. Malglycemia is associated with poor outcomes in pediatric and adolescent hematopoietic stem cell transplant patients. *Blood Adv*. 2019;3(3):350-9. Epub 2019/02/06. doi: 10.1182/bloodadvances.2018021014. PubMed PMID: 30718242.
 - **Sopfe J**, Campbell K, Keating AK, Pyle L, Liu AK, Verneris MR, Giller RH, Forlenza GP. Glycemic variability is associated with poor outcomes in pediatric hematopoietic stem cell transplant patients. *Pediatr Blood Cancer*. 2020;67(11):e28626. Epub 2021/01/23. doi: 10.1002/pbc.28626. PubMed PMID: 33480469.
 - **Sopfe J**, Vigers T, Pyle L, Giller RH, Forlenza GP. Safety and Accuracy of Factory Calibrated Continuous Glucose Monitoring in Pediatric Patients Undergoing Hematopoietic Stem Cell Transplantation. *Diabetes technology & therapeutics*. 2020. Epub 2020/02/28. doi: 10.1089/dia.2019.0521. PubMed PMID: 32105513.
2. Kalie Tommerdahl, MD – Pediatric Endocrinology fellow 2017-2020
Project: Metabolic and Renal Effects of Automated Insulin Delivery Systems in Youth with Type 1 Diabetes Mellitus.
Role: Co-faculty mentor for Dr. Tommerdahl's fellowship projects; Career Advisor
Publication: Pauley ME, **Tommerdahl KL**, Snell-Bergeon JK, Forlenza GP. Continuous Glucose Monitor, Insulin Pump, and Automated Insulin Delivery Therapies for Type 1 Diabetes: An Update on Potential for Cardiovascular Benefits. *Curr Cardiol Rep*. 2022. Epub 20221024. doi: 10.1007/s11886-022-01799-x. PubMed PMID: 36279036
3. Soohee Cho, MD – Pediatric Heme/Onc Fellow 2019-2022
Project: Feasibility and Safety Study of a Hybrid Closed Loop Insulin Delivery System for Children and Young Adults with High Risk Acute Lymphoblastic Leukemia
Role: Primary faculty mentor for Dr. Cho's fellowship project and Masters of Clinical Research projects.
Publication: **Cho S**, Vigers T, Pyle L, Franklin A, Demedis J, Jeney F, Forlenza GP. Composite Metric of Glycemic Control Q-Score is Elevated in Pediatric and Adolescent/Young Adult Hematopoietic Stem Cell Transplant Recipients. *Diabetes technology & therapeutics*. 2022. Epub 20221213. doi: 10.1089/dia.2022.0246. PubMed PMID: 36511871.
4. Meghan Pauley, DO – Pediatric Endocrinology Fellow 2020-2023
Project: Barriers to Uptake of Insulin Technologies and Novel Solutions
Role: Manuscript advisor
Publication: **Pauley ME**, Tommerdahl KL, Snell-Bergeon JK, Forlenza GP. Continuous Glucose

Monitor, Insulin Pump, and Automated Insulin Delivery Therapies for Type 1 Diabetes: An Update on Potential for Cardiovascular Benefits. *Curr Cardiol Rep.* 2022. Epub 20221024. doi: 10.1007/s11886-022-01799-x. PubMed PMID: 36279036

5. Ideen Tabatabai, MD – Pediatric Endocrinology Fellow 2023-present
Project: Real World Implementation of the Beta Bionics iLet
Role: Faculty research mentor
Publication: Forlenza GP, **Tabatabai I**, Lewis D. Point-Counterpoint: The Need for Do-It-Yourself (DIY) Open Source (OS) AID Systems in Type 1 Diabetes Management. *Diabetes Technol Ther.* 2024. Epub 20240426. doi: 10.1089/dia.2024.0073. PubMed PMID: 38669472.
6. Alexandra Sawyer, MD – Pediatric Endocrinology Fellow 2023-present
Project: Using Simplified Meal Boluses versus Carbohydrate Counting in Adolescents with Hybrid Closed Loop Systems: A Randomized Crossover Trial
Role: Faculty research mentor

Graduate and PhD Students

1. Mausam Patidr, MSPH – Pharmacology Graduate Student 2017-2018
Project: Investigation of Self Monitoring of Blood Glucose in Type 1 Diabetes.
Role: Graduate committee member and medical advisor for thesis
2. Taisa Kushner – Computer Science PhD Student 2017-2020
Project: Rigorous Synthesis and Verification of Decisions using Data-Driven Models
Role: Medical advisor for type 1 diabetes and artificial pancreas modeling and systems. Member of PhD Thesis committee.
Publication: Forlenza GP, **Kushner T**, Messer LH, Wadwa RP, Sankaranarayanan S. Factory-Calibrated Continuous Glucose Monitoring: How and Why It Works, and the Dangers of Reuse Beyond Approved Duration of Wear. *Diabetes technology & therapeutics.* 2019. Epub 2019/03/01. doi: 10.1089/dia.2018.0401. PubMed PMID: 30817171
3. Aria Saunders – Masters Biomedical Engineering Student 2021-2023
Project: Design and development of an interface tool designed to reduce vehicular accidents due to hypoglycemia in people with diabetes
Role: Masters project advisor
Publication: **Saunders AL**, Bodine C, Snell-Bergeon J, Forlenza GP, Shah VN. Higher Prevalence of Hypoglycemia and Unsafe Driving Practices in Adults With Type 1 Diabetes. *Diabetes Care.* 2023. Epub 20230127. doi: 10.2337/dc22-2035. PubMed PMID: 36706058
4. Amy Zhang – PhD in Biomedical Engineering Student 2022-2023
Project: Safe Driving for Type 1 Diabetes
Role: PhD Thesis committee member and clinical advisor

Faculty

1. Cari Berget, RN, MPH, CDE – Instructor and Research Nurse 2020-present
Role: Ms. Berget serves as the head research nurse and manager of the BDC Pediatric Diabetes Technology Research team. I serve as her direct supervisor and primary academic mentor.
2. Laurel Messer, RN, CDE, PhD – Assistant Professor 2020-2022
Role: Dr. Messer conducts research on diabetes education, treatment adherence, and diabetes technology. I provide her with career and academic mentorship as well as collaboration on numerous academic and industry projects.
3. Erin Cobry, MD – Assistant Professor 2019-present
Role: Dr. Cobry conducts research on the impact of T1D on sleep and the role of diabetes technology

in improving health in children and their parents. I work with Dr. Cobry on her career development projects and provide academic and career mentorship.

4. Kalie Tommerdahl, MD – Assistant Professor 2020-present
Role: Dr. Tommerdahl conducts research on the metabolic and cardiovascular benefits of technology in the T1D population. I am the technology mentor on her NIH K23 grant.
5. Samantha Lange, FNP, RN, CDCES – Instructor 2021-present
Role: Ms. Lange serves as a research and clinical nurse practitioner. I serve as her direct supervisor and primary academic mentor.
6. Taylor Triolo, MD – Associate Professor 2022-present
Role: Dr. Triolo conducts research on the impact of diabetes genes on islet survival. I am a technology mentor on her NIH K23 grant.

Grant Support

Active Grants

Academic Funding

2-SRA-2023-1275-M-B Forlenza (PI) 11/01/22-10/31/24

2 years total \$1,000,000 (10% effort)

Expanding Technology Success into Novel Populations: Safety and Feasibility Testing of a Fully Closed Loop System in Adolescents and Young Adults with High Baseline HbA1c Values

This JDRF Project Award is to investigate the use of an advanced fully closed loop AP system in young adults and adolescents with HbA1c values 9-12% and a focus on historically underrepresented populations.

Role: Primary Investigator

3-SRA-2019-852-M-R, JDRF Moran (PI) 09/01/19-03/31/25

6 years total \$512,869 (5% effort)

Hybrid Closed Loop Therapy and Verapamil for Beta Cell Preservation in New Onset Type 1 Diabetes (CLVer)

This JDRF Project Award is to investigate the role of advance hybrid closed loop AP systems as well as oral calcium channel blockers in a factorial design in new onset children with T1D. Now in Extension Phase.

Role: Site Primary Investigator; Protocol Co-Chair

1U01DK127551-01, NIH/NIDDK Breton (PI) 9/17/20-6/30/24

3 years total \$310,104 (10% effort)

Translation of the UVA Advanced Automated Insulin Delivery Systems to Clinical Care in Young Children: Glycemic Control, Regulatory Acceptance and Optimization of Day to Day Use

The goal of this multi-center study is to examine the efficacy and safety of the UVA Advanced Automated Insulin Delivery System in the clinical management of young children under age 6 years with type 1 diabetes

Role: Co-Investigator

2206-05306, Helmsley Charitable Trust Polsky (PI) 11/01/21-10/31/24

3 years total \$2,713,114 (20% effort)

SEEDS Pathway: Shared Empowerment of Early Device Success

This project involves creating a clinical pathway to help healthcare providers onboard persons with diabetes onto diabetes devices

Role: Co-Investigator

1R01AT012288-01, NIH

Voida (PI)

9/20/22-6/30/26

4 years total \$1,194,505 (5% effort)

CAPE2: Enhancing Physiological Closed Loops with Cognitive and Psychosocial-Informed Interventions for Blood Glucose Level Control in Type-1 Diabetes

This explores trust and privacy issues critical to developing personalized physiological and cognitive models of T1D patients, to improve the effectiveness of closed-loop control algorithms and improve patient–device interaction through the delivery of timely and pertinent “nudges” encouraging self-management behaviors that improve glycemic control.

Role: Co-Investigator

Industry Funding

AWD-201140, Insulet Corporation

Forlenza (PI)

12/01/19-11/30/24

5 years total \$634,520 (5% effort)

Evaluating the Safety and Effectiveness of the Omnipod Horizon Automated Insulin Delivery System in Patients with Type 1 Diabetes

This project is the pivotal-FDA approval study of the Insulin Horizon HCL AP system in children and adults.

Role: Site Primary Investigator

G190270, Insulet Corporation

Forlenza (PI)

07/22/20-07/21/25

5 years total \$284,838 (5% effort)

Evaluating the Safety and Effectiveness of the Omnipod Horizon Automated Insulin Delivery System in Very Young Children with Type 1 Diabetes

This project is the pivotal-FDA approval study of the Insulin Horizon HCL AP system in children 2-5 years old.

Role: Site Primary Investigator

AWD-200511, Tandem Diabetes Care

Forlenza (PI)

10/08/19-10/07/24

5 years total \$103,138 (5% effort)

Safety of the Tandem t:slim X2 with Control-IQ Automated Insulin Delivery System in Children, age Two to Five Years Old

This project is the first safety study of the Control-IQ HCL AP algorithm in pre-school aged children.

Role: Site Primary Investigator

CIP324, Medtronic Inc.

Forlenza (PI)

07/08/19-07/07/24

5 years total \$300,000 (2% effort)

Evaluation of an Advanced Algorithm with CGM in Adults, Adolescents, and Pediatrics

This project is a pre-pivotal test of an advanced Bayesian calibration filter in the Medtronic CGM system.

Role: Primary Investigator

CIP326, Medtronic Inc.

Forlenza (PI)

06/24/19-06/23/24

5 years total \$223,256 (2% effort)

Feasibility Study on Safety Observations Related to Setting Changes Recommended by Personalized Closed Loop (PCL)

This project is pre-pivotal refinement and testing of a cell phone and cloud based tuning algorithm to improve hybrid closed loop therapy.

Role: Primary Investigator

CIP321, Medtronic Inc. Forlenza (PI) 05/08/19-05/07/24

5 years total \$721,625 (2% effort)

Safety and Effectiveness Evaluation of the Advanced Hybrid Closed Loop (AHCL) system in Adult and Adolescent Subjects with Type 1 Diabetes

This project is the pivotal trial of the ePID 4.0 HCL algorithm in pediatric patients.

Role: Primary Investigator

I8B-MC-ITSB, Lilly Wadwa (PI) 03/21/19-03/20/24

5 years total \$217,330 (2% effort)

A Prospective, Randomized Double-Blind Comparison of LY900014 to Humalog with an Open-Label Postprandial LY900014 Treatment Group in Children and Adolescents with Type 1 Diabetes PRONTO-Peds

Phase 3 pivotal trial of Lilly ultra-rapid acting insulin (FiAsp) in pediatrics.

Role: Co-Investigator

AWD-223799, Tandem Diabetes Care Forlenza (PI) 10/04/22-10/03/27

5 years total \$67,851 (2% effort)

Safety Evaluation of an Advanced Hybrid Closed Loop System Using Lyumjev with the Tandem t:slim X2 with Control-IQ in Adults, Adolescents, and Children with Type 1 Diabetes

This project is the FDA approval trial to use an ultra-rapid acting insulin in the CIQ HCL system.

Role: Site Primary Investigator

CIP335, Medtronic Inc. Forlenza (PI) 08/01/22-07/31/27

5 years total \$165,400 (2% effort)

CIP335: Evaluation of the Advanced Hybrid Closed Loop (AHCL) System in Type 1 Adult and Pediatric Subjects Using Lyumjev

This project is the FDA approval trial to use an ultra-rapid acting insulin in the 780G AHCL system.

Role: Site Primary Investigator

TP-0011713 Forlenza (PI) 10/04/22-10/03/27

5 years total \$67,851 (5% effort)

Control IQ 2.0 Feasibility Study #2: Use of Control-IQ Technology 2.0 in Adults, Children, and Preschoolers with Type 1 Diabetes

This clinical tests the CIQ algorithm with a lower target and late meal module in an outpatient setting with meal and exercise challenges.

Role: Site Primary Investigator

CIP337, Medtronic Inc. Forlenza (PI) 02/14/23-02/13/28

5 years total \$103,585 (2% effort)

Safety and Effectiveness Evaluation of the MiniMed 780G System used in Combination with the DS5 CGM

This study tests the use of the Synergy disposable sensor with the 780G system.

Role: Site Primary Investigator

CIP331, Medtronic Inc. Forlenza (PI) 04/25/21-04/24/26

5 years total \$119,257 (2% effort)

Use of the Guardian Connect System with Smart Connected Devices (CIP331)

This study collects sensor, insulin, sleep, activity, and meal data for 3-9 months on participants using a novel connected smart-pen and CGM system.

Role: Site Primary Investigator

25B0534, Tandem Diabetes Care and Dexcom Forlenza (PI) 01/31/22-01/30/27

5 years total \$100,453

Feasibility and Safety Study of a Hybrid Closed Loop Insulin Delivery System for Children and Young Adults with High Risk Acute Lymphoblastic Leukemia

This investigator-initiated pilot study tests the use of the Control-IQ HCl system in adolescents and young adults with hyperglycemia due to therapy for high risk Leukemia.

Role: Primary Investigator

Prior Support

Academic Funding

5-ECR-2019-736-A-N, JDRF Forlenza (PI) 03/01/19-02/28/24

5 years total \$750,000 (50% effort)

Promotion of Successful Artificial Pancreas Utilization via Predictive Modeling and Targeted Behavioral Interventions in Children, Adolescents, and Young Adults with Type 1 Diabetes.

This JDRF Early Career Patient-Oriented Diabetes Research Award is focused on development of multi-component predictive models to identify patients likely to need additional supports with clinical implementation of hybrid closed loop artificial pancreas technology. These models will then be used to provide targeted behavioral interventions to support successful adoption of this technology.

Role: Primary Investigator

Patten-Davis Foundation Forlenza (PI) 03/01/19-02/28/24

5 years total \$200,000 (1% effort)

Promotion of Successful Artificial Pancreas Utilization via Predictive Modeling and Targeted Behavioral Interventions in Children, Adolescents, and Young Adults with Type 1 Diabetes.

This award provides additional project support for the JDRF ECPODRA.

Role: Primary Investigator

ECCS-2037267, NSF Zhou (PI) 9/15/20-11/30/23

4 years total \$134,627 (5% effort)

SenSE: Closed-Loop Artificial Pancreas with Noninvasive Monitoring of Glucose and Diet

This NSF project award is to develop noninvasive sensors for glucose sensing using light refraction and meal detection using an ear-worn device and machine-learning algorithms.

Role: Site Primary Investigator

P30DK116073, NIH/NIDDK Messer (PI) 04/01/21-03/31/23

2 years total \$100,000 (0.5% effort)

Development of a "Cognitive Awareness Artificial Pancreas Enhancement" (CAPE) to Help Adolescents with Type 1 Diabetes Optimize their use of Artificial Pancreas Systems

This project involves determining predictors of diabetes self-management that can be leveraged to create a unique “nudge” intervention for adolescents with type 1 diabetes using hybrid closed loop.
Role: Co-Investigator

Cystic Fibrosis Foundation Chan (PI) 07/01/19-08/31/22
3 years total \$450,000 (5% effort)
Sensor Augmented Pump Therapy in Inpatients with CFRD
This project is a randomized controlled trial of sensor augmented pump therapy compared against multiple daily injections to improve glucose control in children with Cystic Fibrosis Related Diabetes (CFRD) hospitalized for cystic fibrosis exacerbation.
Role: Co-Investigator

CCF-1815983, NSF Sankaranarayanan (PI) 06/01/18-05/31/21
3 years total \$122,927 (2% effort)
Rigorous Synthesis and Verification Decision using Data-Driven Models
PhD Thesis work for Dr. Kushner focusing on data driven modeling to verify and improve automated decision making for type 1 diabetes
Role: Co-Investigator

UC4DK108612, NIDDK Damiano (PI) 09/30/15-09/30/20
2 years total \$171,050 (2% effort)
Final clinical studies for submission of a pre-market approval application to the FDA for a Bionic Pancreas that automates type 1 diabetes management
This project is the pivotal trial of the Damiano iLet system in children and adults. It includes insulin-only and dual-hormone studies.
Role: Co-Investigator

1-SRA-2019-817-S-B, JDRF Bequette (PI) 07/01/19-06/30/20
1 year total \$29,193 (5% effort)
Analysis of a large patient dataset to improve probabilistic-based modeling for automated insulin delivery
This project will use the large Tidepool dataset and expert review by investigators at two sites to develop train and test automated machine learning algorithms to detect pump infusion site failures and CGM sensor anomalies.
Role: Site Primary Investigator

AWD-172034, Helmsley Charitable Trust Phillip (PI) 3/26/17-5/25/20
3 years total \$198,278 (2% effort)
Evaluation of the DreaMed Advice4U for Automated Insulin Pump Settings Adjustments in Children and Adolescents with Type 1 Diabetes – The Advice4U Study
Pilot randomized controlled clinical trial of automated decision support systems to adjust pump settings for adolescents on SAP therapy.
Role: Co-Investigator

UC4DK108520, NIDDK Hovorka (PI) 09/01/15-03/30/20
3 years total \$626,133 (2% effort)

Day-and-night home closed loop in young people with type 1 diabetes
This study is the pivotal trial of the Hovorka MPC HCL AP platform.
Role: Co-Investigator

UC4DK108483, NIDDK Kovatchev (PI) 01/01/16-12/30/19

4 years total \$966,706 (2% effort)

Clinical Acceptance of the Artificial Pancreas: The International Diabetes Closed Loop (iDCL) Trial
This multi-national effort is a series of trials on the TypeZero Kovatchev MPC algorithm containing a pivotal trial of the Tandem HCL MPC AP system.

Role: Co-Investigator

K12DK094712, NIDDK Steck (PI) 08/01/16-07/31/19

3 years total \$434,700 (75% effort)

Developing Pediatric Diabetes Investigators for the Future

My research projects for this grant focus on clinical implementation of artificial pancreas systems and on the impact of malglycemia in patients after bone marrow transplantation.

Role: Trainee

DP3DK104059, NIDDK Buckingham (PI) 09/01/14-06/30/19

4 years total \$568,175 (2% effort)

Using a Closed-Loop System Plus Behavioral Supports in Preschoolers with Diabetes

This study is a behavioral-intervention adherence trial of multi-component interventions to improve technology use in young children.

Role: Site Primary Investigator

UC4DK101132, NIDDK Meyer-Davis (PI) 09/01/13-06/30/18

5 years total \$2,156,974 (10% effort)

FL3X: An Adaptive Intervention to Improve Outcomes for Youth with Type 1 Diabetes

Randomized controlled adaptive trial of behavioral coaching for high-risk teens with T1D.

Role: Co-Investigator

R01DK102188, NIDDK Bequette (PI) 04/01/14-03/31/18

3 years total: \$203,301 (5% effort)

A probabilistic closed-loop artificial pancreas to handle unannounced meals

This project is a series of in-patient and hotel/house studies to further development of fully closed loop AP designs.

Role: Site Primary Investigator

Thrasher Research Fund Sopfe (PI) 07/01/17-06/30/18

1 year total: \$15,451 (2% effort)

Evaluation of Malglycemia via Continuous Glucose monitoring in the Pediatric Hematopoietic Stem Cell Transplant Population

Fellowship research project for Dr. Sopfe investigating the impact of malglycemia on outcomes in pediatric patients after HSCT.

Role: Mentor

Cancer League of Colorado	Sopfe (PI)	07/01/17-06/30/18
1 year total: \$29,961 (2% effort)		
Evaluation of Malglycemia via Continuous Glucose monitoring in the Pediatric Hematopoietic Stem Cell Transplant Population		
Fellowship research project for Dr. Sopfe investigating the impact of malglycemia on outcomes in pediatric patients after HSCT.		
Role: Mentor		
1446900, NSF	Sankaranarayanan (PI)	10/01/14-09/30/17
5 years total \$615,404 (7% effort)		
CPS: Synergy: Collaborative Research: In-Silico Functional Verification of Artificial Pancreas Control Algorithms.		
This NSF project involves formal verification of AP algorithms in a manner similar to that used for other control systems.		
Role: Co-Investigator		
University of Colorado Foundation	Maahs (PI)	04/01/16-03/31/17
1 year total: \$130,000 (5% effort)		
Reducing Risks and Improving Glucose Control during Exercise in Youth with T1DM: The AP Ski Camp Foundation funded randomized controlled trial of the Kovatchev artificial pancreas system in children during extremes of exercise, temperature, and altitude.		
Role: Co-Investigator		
R01DK085591, NIDDK	Chase (PI)	09/01/09-08/30/16
7 years total: \$289,970 (7% effort)		
In home closed loop reduction of nocturnal hypoglycemia and daytime hyperglycemia		
Randomized controlled trial of home-use of PLGS and Hyper/hypo-glycemia minimization algorithms.		
Role: Co-Investigator		
17-2013-471, JDRF	Buckingham (PI)	11/01/13-10/30/15
2 years total: \$301,778 (10% effort)		
Predicting Infusion Set and CGM Failure in Artificial Pancreas Systems		
Trial testing home-use of a Zone MPC AP system as well as fault detection algorithms.		
Role: Site Primary Investigator		
T32DK065519, NIDDK	Moran (PI)	06/24/13-06/30/15
2 years total \$237,974 (75% effort)		
Pre-Faculty Research Training in Pediatric Endocrinology		
Funding for pediatric endocrinology fellows interested in a career in endocrinology clinical research.		
My project for this award focused on use of artificial pancreas technology to control glucose in patients after total pancreatectomy with islet-auto transplantation.		
Role: Trainee		
University of Minnesota CTSI	Bellin (PI)	06/24/13-06/30/15
2 year total: \$50,000 (5% effort)		

Efficacy and Feasibility of Fully Automated Closed Loop Insulin Pump Therapy after Islet Auto-Transplantation

Funding for my fellowship project under Dr. Bellin investigating the role of artificial pancreas technology in patients after total pancreatectomy with islet auto-transplantation.

Role: Co-Investigator

Minnesota Vikings Research Award Bellin (PI) 06/24/13-06/30/15

2 year total: \$50,000 (5% effort)

Efficacy and Feasibility of Fully Automated Closed Loop Insulin Pump Therapy after Islet Auto-Transplantation

Funding for my fellowship project under Dr. Bellin investigating the role of artificial pancreas technology in patients after total pancreatectomy with islet auto-transplantation.

Role: Co-Investigator

University of Florida Pilot Award Silverstein (PI) 06/01/12-05/31/13

1 year total: \$62,000 (10% effort)

Fun & Fit Families- behavior modification for pediatric obesity

Role: Co-Investigator

American Academy of Pediatrics – CATCH Grant Silverstein (PI) 06/01/12-05/31/13

1 year total: \$12,000 (5% effort)

Fun & Fit Families- behavior modification for pediatric obesity

Role: Co-Investigator

Industry Funding

ADC-US-VAL-18175, Abbott Diabetes Care Forlenza (PI) 12/01/18-11/30/23

3 years total \$131,299 (5% effort)

FreeStyle Libre Flash Glucose Monitoring System Pediatric Accuracy Study

This project is the pediatric pivotal accuracy study for the Abbott FreeStyle Libre 2 Flash Glucose Monitor.

Role: Site Primary Investigator

CEP304, Medtronic Inc. Slover (PI) 10/12/17-10/11/22

5 years total \$160,000 (2% effort)

Multi-Center Randomized Controlled Trial in Adult and Pediatric Patients with Type 1 Diabetes Using Closed Loop System at Home Study

Phase 4 post-marketing randomized controlled trial of the 670G HCL AP system in patients previously on MDI, CSII, and SAP therapy.

Role: Co-Investigator

ADC-US-PMS-17168-002, Abbott Diabetes Care Forlenza (PI) 9/03/18-9/02/21

3 years total \$53,140 (3% effort)

FreeStyle Libre Flash Glucose Monitoring System Post Approval Study for Pediatric Patients

This project is a post-market randomized controlled trial of the Abbott FreeStyle Libre Flash Glucose Monitor in pediatric patients in a 1 year long out-patient observational period.

Role: Site Primary Investigator

<p>CEP302-163889, Medtronic Inc 2 years total \$435,000 (5% effort) Safety Evaluation of the Hybrid Closed Loop (HCL) System in Pediatric Subjects with Type 1 Diabetes This project is the pivotal trial of the Medtronic 670G HCL AP in patients 2-13 years of age. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>05/01/16-12/30/20</p>
<p>AWD-201530, Insulet Corporation 1 year total \$98,680 (2% effort) Prepivotal evaluation of the Safety and Effectiveness of the Omnipod Horizon Automated Glucose Control System in Patients with Type 1 Diabetes This project is the prepivotal final evaluation of the complete Omnipod-Dexcom-Horizon integrated HCL AP platform prior to the pivotal trial. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>12/01/19-11/30/20</p>
<p>IDE3_AWD-175652, Insulet Corporation 3 years total \$435,220 (5% effort) Evaluating glucose control in patients with type 1 diabetes under free-living conditions with the Insulet automated glucose control system This project is a pre-pivotal trial of the Omnipod HCL MPC AP system working with the Dexcom G4 CGM. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>07/11/17-07/11/20</p>
<p>AWD-175324, Tandem Diabetes Care Inc 3 years total \$299,246 (5% effort) Tandem PLGS Pivotal Home Randomized Crossover Study This project is the pivotal out-patient trial of the Tandem PLGS system working on the T:slim X2 pump with the Dexcom G5 CGM. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>06/23/17-06/22/20</p>
<p>IDE_2, Insulet Corporation 3 years total \$100,246 (2% effort) Evaluating meal performance and effect of moderate intensity exercise in patients with type 1 diabetes with the Insulet automated glucose control system This project is a small pre-pivotal trial of the Omnipod HCL MPC AP system working with the Dexcom G4 CGM. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>03/01/17-02/28/20</p>
<p>AWD-165278, Tandem Diabetes Care Inc 3 years total \$119,958 (2% effort) Tandem Predictive Low Glucose Suspend Inpatient Feasibility Study This project is an in hospital safety trial of the Tandem PLGS algorithm. Role: Site Primary Investigator</p>	<p>Forlenza (PI)</p>	<p>08/19/16-11/09/19</p>
<p>AP-IDE1, Insulet Corporation 3 years total \$176,760 (2% effort)</p>	<p>Forlenza (PI)</p>	<p>11/10/16-11/09/19</p>

A Prospective Early Feasibility Study to Assess the Performance of the Insulet Artificial Pancreas System Using the OmniPod Insulin Management System and the Dexcom G4 Share™ AP System

This project is an in hospital safety trial of the Omnipod HCL MPC AP system working with the Dexcom G4 CGM.

Role: Site Primary Investigator

AWD-175652, Tandem Diabetes Care Inc Forlenza (PI) 11/01/17-10/31/19

2 years total \$124,800 (2% effort)

Real-Time Monitoring and Glucose Control During Winter-Sport Exercise in Youth with Type 1 Diabetes: The AP Ski Camp Continued

This project is an investigator-initiated study of the Tandem AP system (Kovatchev algorithm) in children at a ski camp.

Role: Site Primary Investigator

CEP294, Medtronic Inc Slover (PI) 11/01/15-03/31/18

3 years total: \$250,000 (5% effort)

Safety Evaluation of the Hybrid Closed Loop (HCL) System in Type 1 Diabetes

This project is the pivotal trial for the Medtronic 670G HCL AP system in patients \geq 14 years of age.

Role: Co-Investigator

CEP273, Medtronic Inc. Slover (PI) 06/16/15-08/15/16

1 year total: \$150,000 (5% effort)

In-Clinic Feasibility Study to Observe the Closed Loop System

Brief, 1 week, hotel pre-pivotal study of the HCL AP system in children with T1D.

Role: Co-Investigator

Medtronic Investigator Initiated Supplies Grant Bellin (PI) 06/24/13-06/30/15

2 year total: supplies only (n/a)

Efficacy and Feasibility of Fully Automated Closed Loop Insulin Pump Therapy after Islet Auto-Transplantation

Role: Co-Investigator

Relinquished Funding

Academic Funding

1K23DK120867-01, NIDDK Forlenza (PI) 04/01/19-03/30/23

4 year total \$802,700 (75% effort)

Promotion of Successful Artificial Pancreas Utilization via Predictive Modeling and Targeted Behavioral Interventions in Children, Adolescents, and Young Adults with Type 1 Diabetes.

This NIH K23 proposal was awarded by the NIH, but relinquished due to overlap with the JDRF ECPODRA.

Role: Primary Investigator

Bibliography

Peer-Reviewed Publications

First Author: 35

Senior Author: 24

Other Co-Author: 60

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2. **Forlenza GP**, Rewers M. The epidemic of type 1 diabetes: what is it telling us? Current opinion in endocrinology, diabetes, and obesity. 2011;18(4):248-51. Epub 2011/08/17. doi: 10.1097/MED.0b013e32834872ce. PubMed PMID: 21844707.
3. **Forlenza GP**, Stewart MW. Diabetic retinopathy in children. *Pediatric endocrinology reviews : PER*. 2012;10(2):217-26. Epub 2013/04/02. PubMed PMID: 23539833.
4. **Forlenza GP**, Chinnakotla S, Schwarzenberg SJ, Cook M, Radosevich DM, Manchester C, Gupta S, Nathan B, Bellin MD. Near-euglycemia can be achieved safely in pediatric total pancreatectomy islet autotransplant recipients using an adapted intravenous insulin infusion protocol. *Diabetes technology & therapeutics*. 2014;16(11):706-13. doi: 10.1089/dia.2014.0061. PubMed PMID: 25068208; PMCID: 4201245.
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11. **Forlenza GP**, Pyle LL, Maahs DM, Dunn TC. Ambulatory glucose profile analysis of the juvenile diabetes research foundation continuous glucose monitoring dataset-Applications to the pediatric diabetes population. *Pediatr Diabetes*. 2016. Epub 2016/11/24. doi: 10.1111/pedi.12474. PubMed PMID: 27878929.
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Book Chapters

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Other Publications

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Scientific Abstracts from Scientific Meetings

Competitive Abstracts

1. **Forlenza GP**, Chinnakotla S, Schwarzenberg SJ, Cook M, Radosevich D, Manchester C, Gupta S, Nathan B, Bellin M. Near Euglycemia Can be Achieved Safely in Pediatric Total Pancreatectomy Islet Auto-Transplant Recipients Using an Adapted Intravenous Insulin Infusion Protocol. *Poster (Forlenza presenting author) at the Presidential Poster Session of the Pediatric Endocrine Society National Conference, Vancouver 2014. PRESS Conference poster (Forlenza presenting author) in Minneapolis, MN, 2014.*
2. **Forlenza GP**, Nathan B, Moran A, Dunn T, Beilman G, Pruett T, Bellin M. Efficacy and Feasibility of Fully Automated Closed Loop Insulin Pump Therapy after Islet Auto-Transplantation. *Poster (Forlenza presenting author) at the Pancreas Fest National Conference, Pittsburgh, PA, 2014.*
3. **Forlenza GP**, Nathan B, Moran A, Dunn TB, Beilman GJ, Pruett TL, Bellin M. Efficacy and Feasibility of Fully Automated Closed Loop Insulin Pump Therapy after Islet Auto-Transplantation. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2015.*
4. **Forlenza GP**, Fischer L, Janicke DM, Lim CS, Mathews A, Dumont-Driscoll M, Alber JM, Silverstein JH. Feasibility and Preliminary Outcomes of Fun & Fit Families: a Family-Based Community-Centered Behavioral Lifestyle Intervention for Pediatric Obesity. *Poster (Forlenza presenting author) at the Pediatric Endocrine Society National Conference, San Diego, CA, 2015.*
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6. Mann EA, **Forlenza GP**, Kogler A, Miller BS, Nathan B. Educating Diabetes Camp Counselors: Identifying the Gap Between Perceptions and Knowledge – A Quality Improvement Project. *Poster (Mann presenting author) at the Pediatric Endocrine Society National Conference, San Diego, CA 2015. Platform oral talk (Mann presenting author) at the PRESS conference in Minneapolis, MN, 2015.*

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11. **Forlenza GP**, Cameron F, Baysal N, Buckingham BA, Clinton P, Lam D, Levy C, Levister C, Ly TL, Maahs DM, Messer LH, Patek SD, Westfall E, Xie YY, Bequette BW. Effect of Meal Detection Suppression on Postprandial Glycemic Excursion in Fully Closed Loop Artificial Pancreas with Unannounced Unscheduled Large Meals. *Poster (Forlenza presenting author) at the American Diabetes Association Conference, New Orleans, LA, 2016.*
12. Cameron F, Ly TL, Buckingham BA, Bequette BW, **Forlenza GP**, Maahs DM, Levy C. Hotel Trial of a Fully Closed Loop Artificial Pancreas with Unannounced Unscheduled Large Meals. *Poster (Bequette presenting author) at the American Diabetes Association Conference, New Orleans, LA, 2016.*
13. **Forlenza GP**, Cameron FM, Ly TT, Lam D, Howsmon D, Baysal N, Messer L, Clinton P, Levister C, Patek SD, Levy CJ, Wadwa RP, Maahs DM, Bequette BW, Buckingham BA. Fully Closed Loop Multiple Model Probabilistic Predictive Controller (MMPPC) Artificial Pancreas (AP) Performance in Adolescents and Adults in a Supervised Hotel Setting. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
14. **Forlenza GP**, Deshpande S, Ly T, Howsmon DP, Cameron F, Baysal N, Towers L, Marcal T, Bequette BW, Gondhalekar R, Doyle FJ, Maahs DM, Buckingham B, Dassau E. Application of Zone Model Predictive Control (Zone-MPC) Artificial Pancreas (AP) During Extreme Fault Detection Testing Conditions: A Randomized Crossover-Controlled Home-Use Trial. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
15. **Forlenza GP**, Chernavsky DR, DeBoer M, Robic J, Kovatchev BP, Wadwa RP, Messer L, Maahs DM, Breton MD. The Artificial Pancreas (AP) Improves Glycemic Control During Extended Exercise at Ski Camp in Adolescents with Type 1 Diabetes (T1D). *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
16. Messer L, **Forlenza GP**, Wadwa RP, Westfall E, Jost E, Alonso GT, Maahs DM, Slover R. Hybrid Closed-Loop (HCL) Therapy in Adolescents and Young Adults with Type 1 Diabetes (T1D) Increases Time in Range. *Platform Oral Presentation (Messer presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
17. Howsmon DP, Baysal N, Hahn J, Buckingham B, Ly TT, Maahs DM, **Forlenza GP**, Bequette BW. Real-Time Detection of Losses in Infusion Set Actuation (LISAS) in a Closed-Loop Artificial Pancreas. *Poster (Howsmon presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
18. Berget C, Driscoll KA, Hanes S, Marcal T, Towers L, Maahs DM, Howsmon DP, Deshpande S, Gondhalekar R, **Forlenza G**, Bequette BW, Cameron F, Dassau E, Ly T, Doyle FJ, Buckingham B, Hood K. Does the Artificial Pancreas Reduce Diabetes Distress and Hypoglycemia Worry in

Individuals with Type 1 Diabetes? *E-Poster (Berget presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*

19. Tinti D, Marcal T, Towers L, Doiev J, Ly T, Messer L, **Forlenza GP**, Maahs D, Buckingham B. Continuous Glucose Monitor (CGM) Survival and Accuracy Over 21 Consecutive Days. *Poster (Tinti presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Paris, France, 2017.*
20. **Forlenza GP**, Wadwa RP, Slover R, O'Brien R, Mouse TJ, Lum J, Berget C, Marcal T, Beck RW, Buckingham BA, Ly TT. Inpatient Safety and Feasibility of the Tandem Predictive Low Glucose Suspend (PLGS) Insulin Pump. *Platform Oral Presentation (Forlenza presenting author) at the American Diabetes Association Conference, San Diego, CA, 2017.*
21. **Forlenza GP**, Raghinaru D, Cameron F, Bequette BW, Chase HP, Wadwa RP, Maahs DM, Jost E, Ly TT, Wilson DM, Clinton P, Lum JW, Kollman C, Beck RW, Buckingham BA. Predictive Hyperglycemia and Hypoglycemia Minimization (PHHM) in Children with Type 1 Diabetes (T1D): In-Home Evaluation of Safety, Feasibility and Efficacy. *Poster (Forlenza presenting author) at the American Diabetes Association Conference, San Diego, CA, 2017.*
22. Buckingham BA, **Forlenza GP**, Schneider J, Peyser TA, Dassau E, Lee JB, O'Connor J, Layne J, Ly TT. Safety and Feasibility of Omnipod Hybrid Closed-Loop in Adolescents with Type 1 Diabetes Using a Personalized Model Predictive Control Algorithm. *Poster (Buckingham presenting author) at the American Diabetes Association Conference, San Diego, CA, 2017.*
23. Buckingham BA, **Forlenza GP**, Schneider J, Peyser TA, Dassau E, Lee JB, O'Connor J, Layne J, Ly TT. Safety and Feasibility of Omnipod Hybrid Closed-Loop in Children Aged 6-12 Years with Type 1 Diabetes Using a Personalized Model Predictive Control Algorithm. *Late-Breaking Poster (Buckingham presenting author) at the American Diabetes Association Conference, San Diego, CA, 2017.*
24. Garg S, Slover RH, Giordano D, **Forlenza GP**, Lee SW, Shin J, Kaufman FR. Maintaining Glucose Control at One + Year of MiniMed 670G System Home Use; Single Center Experience. *Late-Breaking Poster (Garg presenting author) at the American Diabetes Association Conference, San Diego, CA, 2017.*
25. Sopfe J, Keating AK, Pyle L, Campbell K, Liu AK, Wadwa RP, Verneris M, Giller R, **Forlenza GP**. Malglycemia in Pediatric Hematopoietic Stem Cell Transplant Recipients. *Poster (Sopfe presenting author) at the Pediatric Blood & Marrow Transplant Consortium Conference Montreal, Quebec, 2017.*
26. Sopfe J, Keating AK, Pyle L, Campbell K, Liu AK, Wadwa RP, Verneris M, Giller R, **Forlenza GP**. Malglycemia is Associated with Increased Infection in Pediatric Hematopoietic Stem Cell Transplant Recipients. *Poster (Sopfe presenting author) at the American Society of Hematology Annual Meeting, Atlanta, GA, 2017.*
27. Sopfe J, Keating AK, Pyle L, Campbell K, Liu AK, Wadwa RP, Verneris M, Giller R, **Forlenza GP**. Malglycemia is Associated with Increased Mortality in Pediatric Hematopoietic Stem Cell Transplant Recipients. *Platform Oral Presentation (Sopfe presenting author) at the American Society of Blood and Marrow Transplantation BMT Tandem Meeting, Salt Lake City, UT, 2018.*
28. Buckingham B, Pinsker J, **Forlenza GP**, Cengiz E, Pettus J, Swanson V, Li Z, Lum J, Kollman C, Beck R. PROLOG: A Randomized Clinical Trial to Assess the Efficacy of Predictive Low Glucose Suspend versus Sensor-Augmented Pump Therapy in the Management of Type 1 Diabetes. *Platform Oral Presentation (Buckingham presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Vienna, Austria, 2018.*
29. Buckingham B, Christiansen MP, **Forlenza GP**, Wadwa RP, Peyser TA, Lee JB, O'Connor J, Layne JE, Ly TL. Performance of Omnipod Personalized Model Predictive Control Algorithm with Specific Meal Challenges in Adults with Type 1 Diabetes. *Platform Oral Presentation (Buckingham presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Vienna, Austria, 2018.*

30. **Forlenza GP**, Buckingham BA, Christiansen MP, Wadwa RP, Peyser TA, Lee JB, O'Connor J, Layne JE, Ly TL. Performance of Omnipod Personalized Model Predictive Control Algorithm with Moderate Intensity Exercise and Variable Setpoints in Adults with Type 1 Diabetes. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Vienna, Austria, 2018.*
31. Buckingham BA, Shulman DI, **Forlenza GP**, Bode BW, Pinhas-Hamiel O, Wood MA, Kaiserman KB, Liljenquist DR, Bailey TS, Shin J, Huang S, Cordero TL, Kaufman FR. Glycemic Outcomes During Minimed 670G System Use in Children with T1D. *Platform Oral Presentation (Buckingham presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Vienna, Austria, 2018.*
32. **Forlenza GP**, Shulman DI, Wood MA, Bode BW, Pinhas-Hamiel O, Buckingham BA, Kaiserman KB, Liljenquist DR, Bailey TS, Shin J, Huang S, Cordero TL, Lee SW, Kaufman FR. Evaluation of the Minimed 670G System Predictive Low Glucose Management Feature in Children. *Platform oral Presentation (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Vienna, Austria, 2018.*
33. Berget C, Messer L, Pyle L, Westfall E, **Forlenza GP**, Driscoll K. Real World Use of Hybrid Closed Loop Therapy in Pediatric Patients with Type 1 Diabetes. *Oral guided poster (Berget presenting author) at the American Diabetes Association Conference, Orlando, FL, 2018.*
34. Buckingham BA, Sherr J, **Forlenza GP**, Peyser TA, Lee JB, O'Connor JB, Dumas B, Huyett LM, Layne JE, Ly TT. Safety and Performance of the Omnipod Hybrid Closed-Loop System in Adults with Type 1 Diabetes Over 5 Days Under Free-Living Conditions. *Platform oral presentation (Buckingham presenting author) at the American Diabetes Association Conference, Orlando, FL, 2018.*
35. **Forlenza GP**, Buckingham BA, Sherr J, Peyser TA, Lee JB, O'Connor JB, Dumas B, Huyett LM, Layne JE, Ly TT. Safety and Performance of the Omnipod Hybrid Closed-Loop System in Adolescents with Type 1 Diabetes Over 5 Days Under Free-Living Conditions. *Poster (Forlenza presenting author) at the American Diabetes Association Conference, Orlando, FL, 2018.*
36. Sherr J, **Forlenza GP**, Buckingham BA, Peyser TA, Lee JB, O'Connor JB, Dumas B, Huyett LM, Layne JE, Ly TT. Safety and Performance of the Omnipod Hybrid Closed-Loop System in Children Aged 6-12 years with Type 1 Diabetes Over 5 Days Under Free-Living Conditions. *Poster (Sherr presenting author) at the American Diabetes Association Conference, Orlando, FL, 2018.*
37. **Forlenza GP**, Shulman DI, Wood MA, Bailey TS, Bode BW, Buckingham BA, Huang S, Shin J, Lee SW, Cordero TL, Kaufman FR. Overnight to Early Morning Glycemic Outcomes in Children Using the MiniMed 670G Hybrid Closed-Loop (HCL) System. *Platform oral presentation (Forlenza presenting author) at the American Diabetes Association Conference, Orlando, FL, 2018.*
38. Berget C, Messer LH, Vigers TR, Wadwa RP, Slover R, Pyle L, Driscoll KA, **Forlenza GP**. Real World Use of Hybrid Closed Loop Therapy in Pediatric Patients with Type 1 Diabetes: A Clinical Observation Study. *Platform oral presentation (Berget presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Berlin, Germany, 2019.*
39. Norlander L, Tabatabai I, Ekhlaspour L, Buckingham B, Sethi M, **Forlenza G**. Glycemic Outcomes and System Adherence Between Age Groups in Pediatric Subjects Using a Hybrid Closed-Loop Pump. *Platform oral presentation (Norlander presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Berlin, Germany, 2019.*
40. Lange S, Messer LH, Berget C, **Forlenza G**, Slover R. Exercise using Hybrid Closed Loop Therapy: Lessons from Pediatrics. *Poster (Lange presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Berlin, Germany, 2019.*
41. Vigers T, Chan CL, Snell-Bergeon J, Bjornstad P, Zeitler PS, **Forlenza G**, Pyle L. An R Package for Analysis of Continuous Glucose Monitor Data. *Poster (Vigers presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Berlin, Germany, 2019.*
42. Messer LH, Hanes S, Tabatabai I, DiMeglio LA, Hannon T, **Forlenza G**, Woerner S, Lange S, Driscoll K, Hood K, Rodriguez H, Buckingham BA. Novel Telehealth Support Intervention for Young Children

Using HCL. *Poster (Messer presenting author) at the American Diabetes Association Conference, San Francisco, CA, 2019.*

43. Ekhlaspour L, **Forlenza G**, Berget C, Bird K, Englert K, Hsu L, Balliaro C, Mauras N, Wadwa RP, Buckingham B, El-Khatib F, Damiano E, Russell S. First Test of the iLet, a Purpose-Built Bionic Pancreas Platform, in Children and Adolescents with Type 1 Diabetes. *Poster (Ekhlaspour presenting author) at the American Diabetes Association Conference, San Francisco, CA, 2019.*
44. Buckingham BA, **Forlenza GP**, Sherr J, Galderisi A, Ekhlaspour L, Lee JB, O'Connor JB, Dumais B, Huyett LM, Layne JE, Ly TT. Safety and Performance of the Omnipod Hybrid Closed-Loop System in Young Children Aged 2-6 Years with Type 1 Diabetes. *Platform oral presentation (Buckingham presenting author) at the American Diabetes Association Conference, San Francisco, CA, 2019.*
45. Wong JJ, Clay SM, **Forlenza GP**, Hanes S, Wadwa RP, Hood KK. Evaluating Early Initiation of Continuous Glucose Monitoring (CGM) Among Youth Diagnosed with Type 1 Diabetes (T1D). *Poster (Wong presenting author) at the American Diabetes Association Conference, San Francisco, CA, 2019.*
46. Bailey TS, Bode BW, Buckingham BA, **Forlenza GP**, Pinhas-Hamiel O, Kaiserman K, Liljenquist DR, Shulman DI, Wood MA, Chen X, Shin J, Cordero TL, Lee SW, Kaufman FR. Glycemic Outcomes in the MiniMed 670G System Pivotal Trials in Patients 2-75 Years of Age. *Poster (Bailey presenting author) at the American Diabetes Association Conference, San Francisco, CA, 2019.*
47. Sopfe J, Scarbro S, Suresh K, Maloney K, **Forlenza GP**. Hyperglycemia and Adverse Outcomes in Pediatric Acute Lymphoblastic Leukemia/Lymphoma Patients. *Poster (Sopfe presenting author) at the American Society of Pediatric Hematology/Oncology Conference, New Orleans, LA, 2019.*
48. Ekhlaspour L, Raghinaru D, **Forlenza GP**, Isganaitis E, Kudva YC, Lam DW, Levister C, O'Malley G, Lum JW, Brown SA. Outcomes in Pump- and CGM-Naïve Subgroups in the International Diabetes Closed-Loop (iDCL) Trial. *Poster (Ekhlaspour presenting author) at the Diabetes Technology Meeting, Bethesda, MA, 2019.*
49. O'Malley G, Raghinaru, Levy CJ, Pinsker JE, **Forlenza GP**, Messer L, Isganaitis E, Ekhlaspour L, Lum J, Brown SA. Clinical Management of a Closed-Loop Control System: Results from a 6-Month Multicenter Randomized Clinical Trial. *Poster (O'Malley presenting author) at the Diabetes Technology Meeting, Bethesda, MA, 2019.*
50. Messer LH, Campbell K, Manning M, Habib S, **Forlenza GP**. Satisfaction and reduction in diabetes burden with predictive low glucose suspend in individuals with type 1 diabetes. *Poster (Messer presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
51. Kushner T, Messer L, **Forlenza G**. Translating Standard Clinical Protocol into Tuning Procedures for Hybrid Closed Loop Systems: 670G, Control-IQ, and Loop. *Poster (Kushner presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
52. **Forlenza GP**, DeSalvo DJ, Huyett L, Jantz J, Chang A, Vienneau T, Ly TT. Frequent Bolusing is associated with Better Glycemic Control in 7,494 Youth with Type 1 Diabetes Using the Omnipod Insulin Management System. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
53. Weinstock RS, Hirsch IB, **Forlenza GP**, DeSalvo DJ, Jantz J, Huyett L, Chang A, Vienneau T, Ly TT. Regular Users of Temporary Basal Rate or Extended Bolus Have Better Glycemic Outcomes in 11,997 Omnipod Insulin Management System Users with Type 1 Diabetes. *Poster (Weinstock presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
54. Sherr JL, Buckingham BA, **Forlenza GP**, Galderisi A, Ekhlaspour L, Wadwa RP, Zgorski M, Kingman R, Berget C, Lee JB, O'Connor J, Dumais B, Vienneau T, Huyett LM, Ly TT. Performance of Omnipod Personalized Model Predictive Control with Multiple Setpoints, and Meal and Exercise Challenges in Children aged 2-12 years with Type 1 Diabetes. *Poster (Sherr presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*

55. **Forlenza GP**, Buckingham BA, Sherr JL, Wadwa RP, Galderisi A, Ekhlaspour L, Berget C, Hsu L, Zgorski M, Lee JB, O'Connor J, Dumais B, Vienneau T, Huyett LM, Ly TT. Performance of Omnipod Personalized Model Predictive Control Algorithm with Multiple Setpoints and Meal and Exercise Challenges in Adults and Adolescents with Type 1 Diabetes. *Poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
56. Hanes S, Wadwa RP, Weber I, **Forlenza G**, Buckingham B, Hood K. Continuous Glucose Monitoring (CGM) initiation at diagnosis versus six months later: Which is Best? *Poster (Hanes presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
57. Wong JJ, Hanes S, **Forlenza G**, Weber I, Wadwa RP, Hood K. Early Initiation of Continuous Glucose Monitoring Among Children and Adolescents: Benefits and Timing. *Poster (Wong presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
58. Berget C, Messer LH, Vigers T, Pyle L, Driscoll KA, **Forlenza G**. Twelve Month Clinical Observation of Youth with Type 1 Diabetes Using 670G HCL in the Real-World. *Platform oral presentation (Berget presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
59. Cobry E, Berget C, Messer L, Wadwa RP, Driscoll KA, Pyle L, Vigers T, **Forlenza G**. Psychosocial Outcomes After One Year of Real-World Hybrid Closed-Loop Therapy in Youth and Young Adults with Type 1 Diabetes. *Poster (Cobry presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
60. **Forlenza GP**. Continuous Glucose Monitor Use in Hospital Settings. *Invited oral platform presentation (Forlenza presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
61. Ekhlaspour L, **Forlenza GP**, Schoelwer M, DeBoer M, Kingman R, Berget C, Emory E, Wadwa RP, Buckingham B, Breton M. Safety and Performance of the Tandem T:slim X2 with Control-IQ Automated Insulin Delivery System in Preschoolers, age 2-6 Years Old. *Oral abstract (Ekhlaspour presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
62. **Forlenza GP**, Buckingham BA, Criego A, Brown SA, Bode BW, Levy CJ, Ly TT. First Home Evaluation of the Omnipod Horizon Automated Glucose Control System at Specific Glucose Targets in Children with Type 1 Diabetes. *Oral abstract (Forlenza presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
63. Buckingham BA, **Forlenza GP**, Criego A, Brown SA, Bode BW, Levy CJ, Ly TT. First Home Evaluation of the Omnipod Horizon Automated Glucose Control System in Children with Type 1 Diabetes. *Poster (Buckingham presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
64. Brown SA, Bode BW, Levy CJ, **Forlenza GP**, Buckingham BA, Criego A, Ly TT. First Home Evaluation of the Omnipod Horizon Automated Glucose Control System at Specific Glucose Targets in Adults with Type 1 Diabetes. *Poster (Brown presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
65. Brown SA, Bode BW, Levy CJ, **Forlenza GP**, Buckingham BA, Criego A, Ly TT. First Home Evaluation of the Omnipod Horizon Automated Glucose Control System in Adults with Type 1 Diabetes. *Poster (Brown presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
66. **Forlenza GP**, Buckingham BA, Sherr JL, Wadwa RP, Galderisi A, Ekhlaspour L, Berget C, Hsu L, Zgorski M, Lee JB, O'Connor J, Dumais B, Vienneau T, Huyett LM, Ly TT. Omnipod Personalized MPC Algorithm at Target Glucose of 110 mg/dL is Safe in Adults and Adolescents without Increasing Risk of Hypoglycemia. *Poster (Forlenza presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*

67. Sherr JL, Buckingham BA, **Forlenza GP**, Galderisi A, Ekhlaspour L, Wadwa RP, Zgorski M, Kingman R, Berget C, Lee JB, O'Connor J, Dumais B, Vienneau T, Huyett LM, Ly TT. Omnipod Personalized MPC Algorithm at Target Glucose of 110 mg/dL is Safe in Children Aged 2-12 without Increasing Risk of Hypoglycemia. *Poster (Sherr presenting author) at American Diabetes Association Conference, Chicago, IL (virtual), 2020.*
68. **Forlenza GP**, Buckingham BA, Criego A, Brown SA, Bode BW, Levy CJ, Ly TT. First home evaluation of the Omnipod Horizon Automated Glucose Control System in Children with Type 1 Diabetes. *Platform oral presentation (Forlenza presenting author) at the European Association for the Study of Diabetes conference, Vienna, Austria (virtual), 2020.*
69. Brown SA, Bode BW, Levy CJ, **Forlenza GP**, Buckingham BA, Criego A, Ly TT, First home evaluation of the Omnipod Horizon Automated Glucose Control System in adults with Type 1 Diabetes. *Platform oral presentation (Brown presenting author) at the European Association for the Study of Diabetes conference, Vienna, Austria (virtual), 2020.*
70. Criego A, Buckingham BA, **Forlenza GP**, Brown SA, Bode BW, Levy CJ, Ly TT. First Home Evaluation of the Omnipod Horizon Automated Glucose Control System in Children with Type 1 Diabetes. *ePoster (Criego presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Abu Dhabi, UAE (virtual), 2020.*
71. Cobry E, Berget C, Messer LH, Escobar E, Jost E, Dong F, Driscoll K, **Forlenza GP**. Sleep Mode Use in Pediatric Patients with Type 1 Diabetes Using Control-IQ. *ePoster (Cobry presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Abu Dhabi, UAE (virtual), 2020.*
72. Berget C, Messer LH, Dong F, Escobar E, Jost E, Cobry E, Slover RH, Driscoll KA, **Forlenza GP**. Increased time in range in the first month of Control-IQ use in a clinical sample of youth with T1D. *ePoster (Berget presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Abu Dhabi, UAE (virtual), 2020.*
73. Messer LH, Berget C, Towers L, Otten B, Ernst A, Karami A, Thomas S, Cobry E, Alonso GT, Slover R, Wadwa RP, **Forlenza GP**. Evaluation of a Control-IQ Follow-up Program by Diabetes Educators. *ePoster (Messer presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Abu Dhabi, UAE (virtual), 2020.*
74. Boranian E, Messer LH, Berget C, Cobry E, Wadwa RP, Slover R, **Forlenza GP**. Success and challenges with CGM in children and adolescents with T1D. *ePoster (Boranian presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Abu Dhabi, UAE (virtual), 2020.*
75. Bode B, Levy C, Brown S, Carlson A, Shah V, Pinsker J, Bhargava A, Mehta S, Laffel L, Jones T, Aleppo G, **Forlenza G**, Ly T. Performance of Omnipod 5 Automated Insulin Delivery System at Specific Glucose Targets from 110-1150 mg/dL Over Three Months in Adults and Adolescents with Type 1 Diabetes. *Platform oral presentation (Bode presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Virtual, 2021.*
76. Sherr J, **Forlenza G**, Buckingham B, Criego A, Hansen D, Bode B, Brown S, Macleish S, Pinsker J, Desalvo D, Mehta S, Laffel L, Bhargava A, Ly T. Performance of Omnipod 5 Automated Insulin Delivery System at Specific Glucose Targets from 110-150 mg/dL Over Three Months in Children with Type 1 Diabetes (T1D). *Platform oral presentation (Sherr presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Virtual, 2021.*
77. **Forlenza G**, Brown S, Bode B, Levy C, Criego A, Hansen D, Hirsch I, Carlson A, Bergenstal R, Sherr J, Mehta S, Laffel L, Shah V, Bhargava A, Weinstock R, MacLeish S, DeSalvo D, Jones T, Aleppo G, Buckingham B, Ly T. Safety Evaluation of the Ominpod 5 Automated Insulin Delivery System over 3 Months of Use in Adults and Children with Type 1 Diabetes. *Platform oral presentation (Forlenza presenting author) at the European Association for the Study of Diabetes conference, Virtual, 2021.*
78. Sawyer A, Sobczak M, **Forlenza G**, Alonso GT. Continuous Glucose Monitor Use, but Not Insulin Pump Use, in Pediatric Patients with Type 1 Diabetes Consistently Associated with Lower A1c.

Platform oral presentation (Sawyer presenting author) at the Pediatric Academic Societies Conference, Virtual 2021.

79. Sherr J, Bode B, **Forlenza G**, Laffel L, Brown S, Buckingham B, Criego A, DeSalvo D, Macleish S, Hansen D, Ly T. Evaluation of the Omnipod 5 Automated Insulin Delivery System in Very Young Children with Type 1 Diabetes (T1D). *Platform oral presentation (Sherr presenting author) at the American Diabetes Association 2021 Scientific Sessions, Virtual, 2021.*
80. Shah V, Criego A, Carlson A, Bhargava A, Bode B, Brown S, **Forlenza G**, Levy C, Mehta S, Laffel L, Aleppo G, Buckingham B, DeSalvo D, Hirsch I, Macleish S, Pinsker J, Ly T. Transition from Multiple Daily Injection (MDI) to Omnipod 5 Automated Insulin Delivery System Improves A1c in Type 1 Diabetes (T1D). *Platform oral presentation (Shah presenting author) at the American Diabetes Association 2021 Scientific Sessions, Virtual, 2021.*
81. Carlson A, Criego A, **Forlenza G**, Bode B, Levy C, Hansen D, Hirsch I, Brown S, Bergenstal R, Sherr J, Mehta S, Laffel L, Shah V, Bhargava A, Weinstock R, Macleish S, DeSalvo D, Jones T, Aleppo G, Buckingham B, Ly T. Glycemic Management over 6 Months with the Omnipod 5 Automated Insulin Delivery System. *Platform oral presentation (Carlson presenting author) at the American Diabetes Association 2021 Scientific Sessions, Virtual, 2021.*
82. **Forlenza G**, Vigers T, Berget C, Messer L, Lal R, Basina M, Maahs D, Hood K, Buckingham B, Wilson D, Wadwa RP, Driscoll K, Pyle L. Predicting Success with a First-Generation Hybrid Closed Loop Artificial Pancreas System Among Children, Adolescents, and Young Adults with Type 1 Diabetes: a Model Development and Validation Study. *ePoster (Forlenza presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Virtual 2021.*
83. **Forlenza G**, DeSalvo D, Hadjiyianni I, Huyett L, Lowen S, Chang A, Vinneau T, Ly T. Glycemic Profiles and Treatment Patterns in 1,464 Children and Adolescents with Type 1 Diabetes Using the Omnipod DASH Insulin Management System with Continuous Glucose Monitoring and Cloud-Based Data Management. *ePoster (Forlenza presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Virtual 2021.*
84. Sobczak M, Sawyer A, Alonso GT, **Forlenza G**. Continuous Glucose Monitoring (CGM) Use with or without Insulin Pump Use is Associated with Lower A1c in Pediatric Patients with Type 1 Diabetes (T1D). *ePoster (Sobczak presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Virtual 2021.*
85. Sherr J, Bode B, **Forlenza G**, Laffel L, Schoelwer M, Buckingham B, Criego A, DeSalvo D, MacLeish S, Hansen D, Ly T. Evaluation of the Omnipod 5 Automated Insulin Delivery System in Very Young Children with Type 1 Diabetes. *Platform oral presentation (Sherr presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Virtual 2021.*
86. Escobar E, Towers L, Berget C, Vigers T, Pyle L, Messer L, Cobry E, Slover R, Wadwa RP, Driscoll K, **Forlenza G**. Psychosocial Impacts of the t:slim X2 Pump with Control-IQ Technology (CIQ) in a Clinical Population of Youth with Type 1 Diabetes (T1D) After 6 Months of Use. *ePoster (Escobar presenting author) at the International Society for Pediatric and Adolescent Diabetes Conference, Virtual 2021.*
87. **Forlenza GP**, Vigers T, Berget C, Messer L, Karami A, Towers L, O'Donnell H, Wadwa RP, Pyle L. Predicting 12-Month Success with a Second-Generation Hybrid Closed Loop Artificial Pancreas System. *Platform oral presentation (Forlenza presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
88. Berget C, Messer L, Vigers T, Pyle L, Cobry E, **Forlenza G**. Sustaining Improvement in Glycemic Control for Youth Using Control-IQ (CIQ) for One Year. *Platform oral presentation (Berget presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
89. Macleish S, Sherr J, Bode B, **Forlenza G**, Laffel L, Schoelwer M, Buckingham B, Criego A, DeSalvo D, Hansen D, Ly T, Omnipod 5 in Preschoolers Study Group. *Platform oral presentation (Macleish*

presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.

90. Boranian E, Vigers T, O'Donnell H, Berget C, Messer L, Pyle L, Wadwa RP, **Forlenza GP**. The Relationship Between Time-In-Range (TIR), Mean Glucose and HbA1c in Youth with Type 1 Diabetes. *Platform oral presentation (Boranian presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
91. Ekhlaspour L, Buckingham B, Huyett L, Criego A, Carlson A, Brown S, Weinstock R, Hansen D, Bode B, **Forlenza G**, Levy C, Macleish S, DeSalvo D, Hirsch I, Jones T, Mehta S, Laffel L, Sherr J, Bhargava A, Shah V, Dumais B, Ly T, Omnipod 5 Study Group. Performance of the Omnipod 5 Automated Insulin Delivery System with and Without Pre-Meal Bolus. *ePoster (Ekhlaspour presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
92. Berget C, Centi S, McNair B, **Forlenza G**, Messer L. Feasibility of a Clinical Tool to Support Clinicians in Caring for Persons with Diabetes Using Automated Insulin Delivery. *ePoster (Berget presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
93. Messer L, Vaida S, Cook P, **Forlenza G**, Feisler C, Fivekiller E, Sankaranarayanan S. Development of a "Cognitive Awareness Artificial Pancreas Enhancement" (CAPE) to Help Adolescents with T1D Optimize Their Use of Artificial Pancreas Systems. *ePoster (Messer presenting author) at Advanced Technologies and Treatments for Diabetes International Conference, Barcelona, 2022.*
94. Criego AB, Carlson AL, **Forlenza GP**, Bode BW, Levy CJ, Hansen DW, Hirsch IB, Brown SA, Bergenstal RM, Sherr J, Mehta SN, Laffel LM, Shah V, Bhargava A, Weinstock RS, Macleish S, DeSalvo D, Jones TC, Aleppo G, Buckingham BA, Ly TL, Omnipod 5 Research Group. Glycemic Outcomes over 15 Months with the Omnipod 5 Automated Insulin Delivery System. *Poster presentation (Criego presenting author) at the American Diabetes Association 2022 Scientific Sessions, New Orleans, 2022.*
95. DeSalvo D, Bode B, **Forlenza GP**, Laffel LM, Buckingham BA, Criego AB, Schoelwer M, Macleish SA, Sherr J, Hansen DW, Ly TT, Omnipod 5 In Preschool Study Group. ADA Presidents' Select Abstract: Glycemic Outcomes over 12 Months in Very Young Children with the Omnipod 5 Automated Insulin Delivery (AID) System. *Platform oral presentation (DeSalvo presenting author) at the American Diabetes Association 2022 Scientific Sessions, New Orleans, 2022.*
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