

Gregory P. Forlenza, MD, MS
Curriculum Vitae

Biographical Sketch

Current Position

Assistant Professor of Pediatrics, Barbara Davis Center, Division of Pediatric Endocrinology, Department of Pediatrics, University of Colorado Denver

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-present Assistant Professor, Barbara Davis Center, Division of Pediatric Endocrinology, Department of Pediatrics, University of Colorado Denver, Denver, CO

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

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

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-present Empowering Patients for Individualized Care (EPIC) Conference – Co-Chair for organizing committee

University

2012-2013 Pediatric Obesity Center of Excellence Development Committee, University of Florida - Member
2013-2015 Chronic Pancreatitis Working Group, University of Minnesota - Member
2015-present Scientific Advisory and Review Committee (SARC), University of Colorado - Member

Hospital

2013-2015 Acute Care Diabetes Advisory Committee, University of Minnesota Hospitals – Member
2018-present Insulin Safety Committee, Children’s Hospital Colorado – Artificial Pancreas Advisor
2018-present COMPLETE Kids 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

Licensure and Board Certification

Medical Licenses

2010-present Colorado Medical License
2007-2010 Florida Medical Training License
2011-2015 Florida Medical License
2011-2015 Georgia Medical License
2013-2015 Minnesota Medical License

Board Certification

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

Review and Referee Work

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

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.

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

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*).

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," 2016-2019
12. University of Colorado Fellowship Lecture Series, "Updated on Diabetes Technology," 2016-2019

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

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

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.

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

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.

Medical Students

1. Indira Sriram, PhD – Medical Student 2015-2018
Role: Faculty advisor to medical student

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.

2. Indira Sriram, MD, PhD – Pediatric Resident 2019-2022
Role: Career advisor to pediatric resident

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.
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

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.

Grant Support

Active Grants

Academic Funding

5-ECR-2019-736-A-N, JDRF Forlenza (PI) 03/01/19-02/29/24
5 years total \$750,000 (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 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

Pending, JDRF Moran (PI) 09/01/19-08/31/23
4 years total \$4,400,000; \$536,277 local (6% 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.

Role: Site Primary Investigator

Patten-Davis Foundation Forlenza (PI) 03/01/19-02/29/24

5 years total \$200,000 (3% 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

Cystic Fibrosis Foundation

Chan (PI)

7/1/19-8/31/22

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

1-SRA-2019-817-S-B, JDRF

Bequette (PI)

7/1/19-6/30/20

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

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

UC4DK108612, NIDDK

Damiano (PI)

09/30/15-03/30/20

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

UC4DK108520, NIDDK

Hovorka (PI)

09/01/15-03/30/20

3 years total \$626,133 (2% effort)

One year 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

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

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

Industry Funding

AWD-201140, Insulet Corporation Forlenza (PI) pending

3 years total \$249,651 (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

AWD-201530, Insulet Corporation Forlenza (PI) pending

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

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

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

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 Flash Glucose Monitor.

Role: Site Primary Investigator

IDE3_AWD-175652, Insulet Corporation Forlenza (PI) 07/11/17-07/11/20

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

AWD-175324, Tandem Diabetes Care Inc Forlenza (PI) 06/23/17-06/22/20

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

CEP302-163889, Medtronic Inc Forlenza (PI) 05/01/16-12/30/19

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

IDE_2, Insulet Corporation Forlenza (PI) 03/01/17-02/28/20

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

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

Prior Support

Academic Funding

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: Co-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

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

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

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

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

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		
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		
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		
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

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

AWD-165278, Tandem Diabetes Care Inc Forlenza (PI) 08/19/16-11/09/19
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

AP-IDE1, Insulet Corporation Forlenza (PI) 11/10/16-11/09/19
3 years total \$176,760 (2% effort)
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

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

1. **Forlenza GP**, Paradise Black NM, McNamara EG, Sullivan SE. Ankyloglossia, exclusive breastfeeding, and failure to thrive. *Pediatrics*. 2010;125(6):e1500-4.
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.
3. **Forlenza GP**, Stewart MW. Diabetic retinopathy in children. *Pediatr Endocrinol Rev*. 2012;10(2):217-26.
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 Technol Ther*. 2014;16(11):706-13.
5. **Forlenza GP**, Polgreen LE, Miller BS, MacMillan ML, Wagner JE, Petryk A. Growth hormone treatment of patients with Fanconi anemia after hematopoietic cell transplantation. *Pediatr Blood Cancer*. 2014;61(6):1142-3.
6. **Forlenza GP**, Calhoun A, Beckman KB, Halvorsen T, Hamdoun E, Zierhut H, Sarafoglou K, Polgreen LE, Miller BS, Nathan B, Petryk A. Next generation sequencing in endocrine practice. *Mol Genet Metab*. 2015;115(2-3):61-71.
7. **Forlenza GP**, Sankaranarayanan S, Maahs DM. Refining the closed loop in the data age: research-to-practice transitions in diabetes technology. *Diabetes Technol Ther*. 2015;17(5):304-6.
8. **Forlenza GP**, Buckingham B, Maahs DM. Progress in Diabetes Technology: Developments in Insulin Pumps, Continuous Glucose Monitors, and Progress towards the Artificial Pancreas. *J Pediatr*. 2016;169:13-20.
9. **Forlenza GP**, Nathan BM, Moran A, Dunn TB, Beilman GJ, Pruett TL, Kovatchev BP, Bellin MD. Accuracy of Continuous Glucose Monitoring in Patients After Total Pancreatectomy with Islet Autotransplantation. *Diabetes Technol Ther*. 2016;18(8):455-63.
10. **Forlenza GP**, Nathan BM, Moran AM, Dunn TB, Beilman GJ, Pruett TL, Bellin MD. Successful Application of Closed-Loop Artificial Pancreas Therapy After Islet Autotransplantation. *American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons*. 2016;16(2):527-34.
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.

12. Karlin AW, Ly TT, Pyle L, **Forlenza GP**, Messer L, Wadwa RP, DeSalvo DJ, Payne SL, Hanes S, Clinton P, Maahs DM, Buckingham B. Duration of Infusion Set Survival in Lipohypertrophy Versus Nonlipohypertrophied Tissue in Patients with Type 1 Diabetes. *Diabetes Technol Ther*. 2016;18(7):429-35.
13. Beisang D, **Forlenza GP**, Luquette M, Sarafoglou K. Sporadic Insulinoma Presenting as Early Morning Night Terrors. *Pediatrics*. 2017;139(6).
14. Bellin MD, **Forlenza GP**, Majumder K, Berger M, Freeman ML, Beilman GJ, Dunn TB, Pruett TL, Murati M, Wilhelm JJ, Cook M, Sutherland DE, Schwarzenberg SJ, Chinnakotla S. Total Pancreatectomy With Islet Autotransplantation Resolves Pain in Young Children With Severe Chronic Pancreatitis. *J Pediatr Gastroenterol Nutr*. 2017;64(3):440-5.
15. Breton MD, Chernavvsky DR, **Forlenza GP**, DeBoer MD, Robic J, Wadwa RP, Messer LH, Kovatchev BP, Maahs DM. Closed Loop Control During Intense Prolonged Outdoor Exercise in Adolescents With Type 1 Diabetes: The Artificial Pancreas Ski Study. *Diabetes care*. 2017.
16. Cameron FM, Ly TT, Buckingham BA, Maahs DM, **Forlenza GP**, Levy CJ, Lam D, Clinton P, Messer LH, Westfall E, Levister C, Xie YY, Baysal N, Howsmon D, Patek SD, Bequette BW. Closed-Loop Control Without Meal Announcement in Type 1 Diabetes. *Diabetes Technol Ther*. 2017;19(9):527-32.
17. **Forlenza GP**. Insulin Infusion Sets and Continuous Glucose Monitoring Sensors: Where the Artificial Pancreas Meets the Patient. *Diabetes Technol Ther*. 2017;19(4):206-8.
18. **Forlenza GP**. Relevance of Bolus Calculators in Current Hybrid Closed Loop Systems. *Diabetes Technol Ther*. 2017;19(7):400-1.
19. **Forlenza GP**, Argento NB, Laffel LM. Practical Considerations on the Use of Continuous Glucose Monitoring in Pediatrics and Older Adults and Nonadjunctive Use. *Diabetes Technol Ther*. 2017;19(S3):S13-S20.
20. **Forlenza GP**, Deshpande S, Ly TT, Howsmon DP, Cameron F, Baysal N, Mauritzen E, Marcal T, Towers L, Bequette BW, Huyett LM, Pinsker JE, Gondhalekar R, Doyle FJ, 3rd, Maahs DM, Buckingham BA, Dassau E. Application of Zone Model Predictive Control Artificial Pancreas During Extended Use of Infusion Set and Sensor: A Randomized Crossover-Controlled Home-Use Trial. *Diabetes care*. 2017;40(8):1096-102.
21. **Forlenza GP**, Deshpande S, Ly TT, Howsmon DP, Cameron F, Baysal N, Mauritzen E, Marcal T, Towers L, Bequette BW, Huyett LM, Pinsker JE, Gondhalekar R, Doyle FJ, 3rd, Maahs DM, Buckingham BA, Dassau E. Erratum. Application of Zone Model Predictive Control Artificial Pancreas During Extended Use of Infusion Set and Sensor: A Randomized Crossover-Controlled Home-Use Trial. *Diabetes Care* 2017;40:1096-1102. *Diabetes care*. 2017;40(11):1606.
22. **Forlenza GP**, Raghinaru D, Cameron F, Wayne Bequette B, Peter Chase H, Paul Wadwa R, Maahs DM, Jost E, Ly TT, Wilson DM, Norlander L, Ekhlaspour L, Min H, Clinton P, Njeru N, Lum JW, Kollman C, Beck RW, Buckingham BA. Predictive hyperglycemia and hypoglycemia minimization: In-home double-blind randomized controlled evaluation in children and young adolescents. *Pediatr Diabetes*. 2017.
23. Howsmon DP, Cameron F, Baysal N, Ly TT, **Forlenza GP**, Maahs DM, Buckingham BA, Hahn J, Bequette BW. Continuous Glucose Monitoring Enables the Detection of Losses in Infusion Set Actuation (LISAs). *Sensors*. 2017;17(1).
24. Huyett LM, Ly TT, **Forlenza GP**, Reuschel-DiVirgilio S, Messer LH, Wadwa RP, Gondhalekar R, Doyle FJ, 3rd, Pinsker JE, Maahs DM, Buckingham BA, Dassau E. Outpatient Closed-Loop Control with Unannounced Moderate Exercise in Adolescents Using Zone Model Predictive Control. *Diabetes Technol Ther*. 2017;19(6):331-9.
25. Laffel LM, Aleppo G, Buckingham BA, **Forlenza GP**, Rasbach LE, Tsalikian E, Weinzimer SA, Harris DR. A Practical Approach to Using Trend Arrows on the Dexcom G5 CGM System to Manage Children and Adolescents With Diabetes. *Journal of the Endocrine Society*. 2017;1(12):1461-76.
26. Messer LH, **Forlenza GP**, Wadwa RP, Weinzimer SA, Sherr JL, Hood KK, Buckingham BA, Slover RH, Maahs DM. The dawn of automated insulin delivery: A new clinical framework to conceptualize insulin administration. *Pediatr Diabetes*. 2017.

27. Ohman-Hanson RA, **Forlenza GP**. Artificial Pancreas in Young Children. *Diabetes Technol Ther*. 2017;19(5):277-9.
28. Sarafoglou K, **Forlenza GP**, Addo OY, Kylo J, Lteif A, Hindmarsh PC, Petryk A, Gonzalez-Bolanos MT, Miller BS, Thomas W. Obesity in Children with Congenital Adrenal Hyperplasia in the Minnesota Cohort: Importance of Adjusting Body Mass Index for Height-Age. *Clin Endocrinol (Oxf)*. 2017;86(5):708-16.
29. Spaic T, Driscoll M, Raghinaru D, Buckingham BA, Wilson DM, Clinton P, Chase HP, Maahs DM, **Forlenza GP**, Jost E, Hramiak I, Paul T, Bequette BW, Cameron F, Beck RW, Kollman C, Lum JW, Ly TT. Predictive Hyperglycemia and Hypoglycemia Minimization: In-Home Evaluation of Safety, Feasibility, and Efficacy in Overnight Glucose Control in Type 1 Diabetes. *Diabetes care*. 2017.
30. Zhong VW, Crandell JL, Shay CM, Gordon-Larsen P, Cole SR, Juhaeri J, Kahkoska AR, Maahs DM, Seid M, **Forlenza GP**, Mayer-Davis EJ. Dietary intake and risk of non-severe hypoglycemia in adolescents with type 1 diabetes. *Journal of diabetes and its complications*. 2017;31(8):1340-7.
31. Buckingham BA, Christiansen MP, **Forlenza GP**, Wadwa RP, Peyser TA, Lee JB, O'Connor J, Dassau E, Huyett LM, Layne JE, Ly TT. Performance of the Omnipod Personalized Model Predictive Control Algorithm with Meal Bolus Challenges in Adults with Type 1 Diabetes. *Diabetes Technol Ther*. 2018.
32. Buckingham BA, **Forlenza GP**, Pinsker JE, Christiansen MP, Wadwa RP, Schneider J, Peyser TA, Dassau E, Lee JB, O'Connor J, Layne JE, Ly TT. Safety and Feasibility of the OmniPod Hybrid Closed-Loop System in Adult, Adolescent, and Pediatric Patients with Type 1 Diabetes Using a Personalized Model Predictive Control Algorithm. *Diabetes Technol Ther*. 2018;20(4):257-62.
33. **Forlenza GP**. Ongoing Debate About Models for Artificial Pancreas Systems and In Silico Studies. *Diabetes Technol Ther*. 2018;20(3):174-6.
34. **Forlenza GP**, Cameron FM, Ly TT, Lam D, Howsmon DP, Baysal N, Kulina G, 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 Artificial Pancreas Performance in Adolescents and Adults in a Supervised Hotel Setting. *Diabetes Technol Ther*. 2018;20(5):335-43.
35. **Forlenza GP**, Li Z, Buckingham BA, Pinsker JE, Cengiz E, Wadwa RP, Ekhlaspour L, Church MM, Weinzimer SA, Jost E, Marcal T, Andre C, Carria L, Swanson V, Lum JW, Kollman C, Woodall W, Beck RW. Predictive Low-Glucose Suspend Reduces Hypoglycemia in Adults, Adolescents, and Children With Type 1 Diabetes in an At-Home Randomized Crossover Study: Results of the PROLOG Trial. *Diabetes care*. 2018.
36. **Forlenza GP**, Messer LH, Berget C, Wadwa RP, Driscoll KA. Biopsychosocial Factors Associated With Satisfaction and Sustained Use of Artificial Pancreas Technology and Its Components: a Call to the Technology Field. *Curr Diab Rep*. 2018;18(11):114.
37. **Forlenza GP**, Pinhas-Hamiel O, Liljenquist DR, Shulman DI, Bailey TS, Bode BW, Wood MA, Buckingham BA, Kaiserman KB, Shin J, Huang S, Lee SW, Kaufman FR. Safety Evaluation of the MiniMed 670G System in Children 7-13 Years of Age with Type 1 Diabetes. *Diabetes Technol Ther*. 2018.
38. Howsmon DP, Baysal N, Buckingham BA, **Forlenza GP**, Ly TT, Maahs DM, Marcal T, Towers L, Mauritzen E, Deshpande S, Huyett LM, Pinsker JE, Gondhalekar R, Doyle FJ, 3rd, Dassau E, Hahn J, Bequette BW. Real-Time Detection of Infusion Site Failures in a Closed-Loop Artificial Pancreas. *Journal of diabetes science and technology*. 2018:1932296818755173.
39. Messer LH, Berget C, Beatson C, Polsky S, **Forlenza GP**. Preserving Skin Integrity with Chronic Device Use in Diabetes. *Diabetes Technol Ther*. 2018;20(S2):S254-s64.
40. Messer LH, **Forlenza GP**, Sherr JL, Wadwa RP, Buckingham BA, Weinzimer SA, Maahs DM, Slover RH. Optimizing Hybrid Closed-Loop Therapy in Adolescents and Emerging Adults Using the MiniMed 670G System. *Diabetes care*. 2018;41(4):789-96.
41. Sherr JL, Tauschman M, Battelino T, de Bock M, **Forlenza G**, Roman R, Hood KK, Maahs DM. ISPAD Clinical Practice Consensus Guidelines 2018 Diabetes Technologies. *Pediatr Diabetes*. 2018.
42. Wood MA, Shulman DI, **Forlenza GP**, Bode BW, Pinhas-Hamiel O, Buckingham BA, Kaiserman KB, Liljenquist DR, Bailey TS, Shin J, Huang S, Chen X, Cordero TL, Lee SW, Kaufman FR. In-Clinic

Evaluation of the MiniMed 670G System "Suspend Before Low" Feature in Children with Type 1 Diabetes. *Diabetes Technol Ther.* 2018.

43. Anderson SM, Dassau E, Raghinaru D, Lum J, Brown SA, Pinsker JE, Church MM, Levy C, Lam D, Kudva YC, Buckingham B, **Forlenza GP**, Wadwa RP, Laffel L, Doyle FJ, 3rd, DeVries JH, Renard E, Cobelli C, Boscari F, Del Favero S, Kovatchev BP. The International Diabetes Closed-Loop Study: Testing Artificial Pancreas Component Interoperability. *Diabetes Technol Ther.* 2019.
44. Berget C, Messer LH, **Forlenza GP**. A Clinical Overview of Insulin Pump Therapy for the Management of Diabetes: Past, Present, and Future of Intensive Therapy. *Diabetes spectrum : a publication of the American Diabetes Association.* 2019;32(3):194-204.
45. Brown SA, Kovatchev BP, Raghinaru D, Lum JW, Buckingham BA, Kudva YC, Laffel LM, Levy CJ, Pinsker JE, Wadwa RP, Dassau E, Doyle FJ, 3rd, Anderson SM, Church MM, Dadlani V, Ekhlaspour L, **Forlenza GP**, Isganaitis E, Lam DW, Kollman C, Beck RW. Six-Month Randomized, Multicenter Trial of Closed-Loop Control in Type 1 Diabetes. *The New England journal of medicine.* 2019.
46. Ekhlaspour L, **Forlenza GP**, Chernavvsky D, Maahs DM, Wadwa RP, DeBoer MD, Messer LH, Town M, Pinnata J, Kruse G, Kovatchev BP, Buckingham BA, Breton MD. Closed Loop Control in Adolescents and Children During Winter Sports: Use of the Tandem Control-IQ AP System. *Pediatr Diabetes.* 2019.
47. **Forlenza GP**. Use of Artificial Intelligence to Improve Diabetes Outcomes in Patients Using Multiple Daily Injections Therapy. *Diabetes Technol Ther.* 2019;21(S2):S24-s8.
48. **Forlenza GP**, Buckingham BA, Christiansen MP, Wadwa RP, Peyser TA, Lee JB, O'Connor J, Dassau E, Huyett LM, Layne JE, Ly TT. Performance of Omnipod Personalized Model Predictive Control Algorithm with Moderate Intensity Exercise in Adults with Type 1 Diabetes. *Diabetes Technol Ther.* 2019.
49. **Forlenza GP**, Ekhlaspour L, Breton M, Maahs DM, Wadwa RP, DeBoer M, Messer LH, Town M, Pinnata J, Kruse G, Buckingham BA, Chernavvsky D. Successful At-Home Use of the Tandem Control-IQ Artificial Pancreas System in Young Children During a Randomized Controlled Trial. *Diabetes Technol Ther.* 2019.
50. **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 Technol Ther.* 2019.
51. Messer LH, Berget C, **Forlenza GP**. A Clinical Guide to Advanced Diabetes Devices and Closed-Loop Systems Using the CARES Paradigm. *Diabetes Technol Ther.* 2019.
52. 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 review of medical devices.* 2019.
53. Sherr J, Buckingham BA, **Forlenza G**, Galderisi A, Ekhlaspour L, Wadwa RP, Carria L, Hsu LJ, Berget CL, Peyser TA, Lee JB, O'Connor J, Dumais B, Huyett LM, Layne JE, Ly TT. Safety and Performance of the Omnipod Hybrid Closed-Loop System in Adults, Adolescents, and Children with Type 1 Diabetes Over 5 Days Under Free-Living Conditions. *Diabetes Technol Ther.* 2019.
54. 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.
55. Vigers T, Chan CL, Snell-Bergeon J, Bjornstad P, Zeitler PS, **Forlenza G**, Pyle L. cgmanalysis: An R package for descriptive analysis of continuous glucose monitor data. *PloS one.* 2019;14(10):e0216851.

Book Chapters

1. Polychronakos C, Bellin M, Wood J, **Forlenza GP**, Rosenbloom A, Silverstein J. "Diabetes Mellitus" chapter in *Pediatric Endocrinology and Inborn Errors of Metabolism 2nd Ed* edited by Sarafoglou K.
2. **Forlenza GP**, Moran A, Nathan B. "Atypical Diabetes" chapter in *Diabetes in America* published by the National Institutes of Health.

3. Roberts AJ, **Forlenza GP**, Maahs DM, Taplin CE. "Type 1 Diabetes Mellitus and Exercise" chapter in *Diabetes and Exercise* 2nd Ed edited by Regensteiner J.
4. Kushner T, Bequette BW, Cameron F, **Forlenza G**, Maahs D, Sankaranarayanan S. "Models, Devices, Properties, and Verification of Artificial Pancreas System" in *Automated Reasoning for Systems Biology Medicine* 1st Ed.
5. **Forlenza GP**, Messer LH, Maahs DM, Chernavsky DR. "Artificial Pancreas in Pediatrics" in *The Artificial Pancreas – Current Situation and Future Directions* 1st Ed edited by Sanchez-Pena RS and Chernavsky DR.

Other Publications

1. **Forlenza GP**, Haller M. "It's Summer, Get Ready for Diabetes Camp! Camps for youth and children with diabetes are invaluable." *Review of Endocrinology*. July 2008;2;7;19-20.
2. **Forlenza GP**, Maahs DM. Diabetes Technology and Therapy in the Pediatric Age Group. *US Endocrinology*. 2016;12(1):22-3.

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. *Presented as a poster (Forlenza presenting author) at the Presidential Poster Session of the Pediatric Endocrine Society National Conference, Vancouver 2014. Also presented at the PRESS conference as a 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. *Presented as a 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. *Presented as a 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. *Presented as a poster (Forlenza presenting author) at the Pediatric Endocrine Society National Conference, San Diego, CA, 2015.*
5. **Forlenza GP**, Nathan B, Moran A, Dunn TB, Beilman GJ, Pruett TL, Bellin M. Successful Implementation of Fully Automated Closed Loop Therapy after Islet Auto-Transplantation. *Presented as a poster (Forlenza presenting author) and selected audio tour content at the American Diabetes Association National Conference, Boston, MA 2015. Presented as a platform oral presentation (Forlenza presenting author) at the PRESS conference in Minneapolis, MN, 2015.*
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. *Presented as a poster (Mann presenting author) at the Pediatric Endocrine Society National Conference, San Diego, CA 2015. Presented as an oral platform talk (Mann presenting author) at the PRESS conference in Minneapolis, MN, 2015.*
7. **Forlenza GP**. Progress Towards an Artificial Pancreas: Status in 2015. *Presented as a platform talk (Forlenza presenting author) at WAVE Retina Conference in Wailea, HI, 2015.*
8. Huyett LM, Ly TL, Reuschel-DiVirgilio SR, Clay MS, Bevier W, Gondhalekar R, Dassau E, **Forlenza GP**, Doyle FJ, Pinsker JE, Maahs DM, Buckingham BA. Outpatient Closed-Loop Control with Unannounced Moderate Exercise in Adolescents using Zone Model Predictive Control. *Presented as a platform oral presentation (Huyett presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Milan, Italy, 2016.*

9. **Forlenza GP**, Pyle LL, Maahs DM, Dunn TC. Ambulatory Glucose Profile Characterization of Juvenile Diabetes Research Foundation-Continuous Glucose Monitoring Trial Data. *Presented as a poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Milan, Italy, 2016.*
10. **Forlenza GP**, Nathan BM, Moran AM, Dunn TB, Beilman GJ, Pruetz TL, Kovatchev BP, Bellin MB. Accuracy of Continuous Glucose Monitoring in Patients after Major Abdominal Surgery. *Presented as a poster (Forlenza presenting author) at the Advanced Technologies and Treatments for Diabetes International Conference, Milan, Italy, 2016.*
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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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). *Presented as a 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. *Presented as a 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. *Presented as a 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? *Accepted as an abstract (Berget corresponding 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as a 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. *Presented as an Oral Platform 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. *Presented as an 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. *Presented as an oral platform 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. *Presented as a 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. *Presented as a 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. *Presented as an oral platform 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. *Presented as an oral platform 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. *Presented as an oral platform 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. *Presented as a 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. *Presented as a 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. *Accepted as a 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. *Accepted as a 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. *Accepted as an oral platform 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). *Accepted as a 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. *Accepted as a 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. *Submitted (Sopfe presenting author) to the American Society of Pediatric Hematology/Oncology Conference, New Orleans, LA, 2019.*
48. 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. *Submitted (Messer presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
49. Kushner T, Messer L, **Forlenza G**. Translating Standard Clinical Protocol into Tuning Procedures for Hybrid Closed Loop Systems: 670G, Control-IQ, and Loop. *Submitted (Kushner presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
50. **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. *Submitted (Forlenza presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
51. 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. *Submitted (Weinstock presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
52. 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. *Submitted (Sherr presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
53. **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. *Submitted (Forlenza presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*

54. 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? *Submitted (Hanes presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
55. 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. *Submitted (Wong presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
56. 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. *Submitted (Berget presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*
57. 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. *Submitted (Cobry presenting author) to the Advanced Technologies and Treatments for Diabetes International Conference, Madrid, Spain, 2020.*