




Bruce Buckingham

Professor of Pediatrics (Endocrinology) at the Lucile Salter Packard Children's Hospital, Emeritus

Pediatrics - Endocrinology

 NIH Biosketch available Online

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty - University Medical Line, Pediatrics - Endocrinology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My major interest is in type 1 diabetes mellitus, continuous glucose sensor, and the development of an artificial pancreas. Other research interests include using continuous glucose monitoring and algorithms to control blood glucose levels in intensive care units.

CLINICAL TRIALS

- A Randomized Control Trial Comparing Linjeta Versus Humalog in Pumps: Effect on Postprandial Blood Sugars., Not Recruiting
- A Study to Evaluate a Multiple Model Probabilistic Predictive Controller (MMPPC) for Closed Loop Insulin Delivery, Not Recruiting
- An Outpatient Pump Shutoff Pilot Feasibility and Safety Study, Not Recruiting
- An Outpatient Study of Automated Blood Glucose Control With an Insulin-Only Bionic Pancreas, Not Recruiting
- Assessment of an Automatic Closed-loop Insulin Delivery System, Not Recruiting
- Development of Algorithms for a Hypoglycemic Prevention Alarm: Closed Loop Study, Not Recruiting
- Diabetes Assistant (DiAs) Control-to-Range (CTR) Nocturnal Closed-Loop Camp Study, Not Recruiting
- Diabetes Pump With Predictive Low Glucose Suspend Pivotal Trial, Not Recruiting
- Duration of Infusion Set Function: Quick-Set Teflon Catheter Versus Sure-T Steel Infusion Set Catheter, Not Recruiting
- Evaluation of Extended Infusion Set Wear Using Medtronic Extended Wear Sof-set Infusion Set, Not Recruiting
- Evaluation of Fiasp® (Fast Acting Insulin Aspart) in 670G Hybrid Closed-Loop Therapy, Not Recruiting
- Fault Detection, Zone MPC and DiAs System in T1D, Not Recruiting
- Fault Detection, Zone MPC and DiAs System in T1D, Not Recruiting
- Full Day and Night Closed-Loop With DiAs Platform, Not Recruiting
- Hyaluronidase Effect on Infusion Set Life, Not Recruiting
- Hybrid Closed Loop Therapy and Verapamil for Beta Cell Preservation in New Onset Type 1 Diabetes, Not Recruiting
- Hybrid Closed-Loop Hotel Studies With Medtronic PID Controller, Not Recruiting
- Initiation of Continuous Glucose Monitoring at Diagnosis of Type 1 Diabetes, Not Recruiting

- Insulet Artificial Pancreas Early Feasibility Study, Not Recruiting
- Longevity of Multi-Slitted Catheter With Lantern Technology, Not Recruiting
- Medtronic Minimed Overnight Closed-Loop System, Not Recruiting
- Medtronic Treat to Range (TTR) Closed-Loop Control, Not Recruiting
- Omnipod Horizon™ Automated Glucose Control System Preschool Cohort, Not Recruiting
- Outpatient Pump Shutoff Pilot Feasibility and Efficacy Study, Not Recruiting
- Outpatient Reduction of Nocturnal Hypoglycemia by Using Predictive Algorithms and Pump Suspension in Children, Not Recruiting
- Pilot Study to Evaluate a Method of Controlling High Blood Sugar in the Pediatric Intensive Care Unit, Not Recruiting
- Pivotal Omnipod Horizon™ Automated Glucose Control System, Not Recruiting
- Pre-pivotal Omnipod Horizon™ Automated Glucose Control System, Not Recruiting
- Real-time Reminders To Decrease Late or Missed Meal Boluses, Not Recruiting
- Reduction of Nocturnal Hypoglycemia and Hyperglycemia in the Home Using Predictive Algorithms, Not Recruiting
- Reduction of Nocturnal Hypoglycemia and Hyperglycemia in the Home Using Predictive Algorithms, Pump Suspension, and Insulin Dosing in Children and Young Adolescents, Not Recruiting
- Remote Monitoring of Diabetes in Young Children With Type 1 Diabetes, Not Recruiting
- Reversal of Hypoglycemia Unawareness Using Continuous Glucose Monitoring, Not Recruiting
- Testing State of the Art Remote Glucose Monitoring at Diabetes Camp, Not Recruiting
- The Insulin-Only Bionic Pancreas Pivotal Trial, Not Recruiting
- The Pediatric Artificial Pancreas (PEDAP) Trial of Control-IQ Technology in Young Children in Type 1 Diabetes, Not Recruiting
- USS Virginia Closed-Loop Versus SAP Therapy for Hypoglycemia Reduction in T1D, Not Recruiting

Publications

PUBLICATIONS

- **Automated basal insulin delivery versus multiple daily injections in type 1 diabetes: results from a randomized parallel controlled trial.** *Frontiers in endocrinology*
Jendle, J. H., Garg, S. K., Thivolet, C., Weinstock, R. S., Hirsch, I. B., Evans, M., Griffin, K. J., Philis-Tsimikas, A., Wheeler, B. J., Kipnes, M. S., Carlson, A. L., Buckingham, B. A., Bhargava, et al
2025; 16: 1716587
- **Diabetes technology use in U.S. hospitals: A survey of user experiences.** *Diabetes, obesity & metabolism*
Hughes, M. S., Morgan, M., Liu, Y. T., Lee, M. Y., Hanes, S. J., Hood, K. K., Buckingham, B. A., Lal, R.
2025
- **Use of the Omnipod 5 Automated Insulin Delivery System Activity Feature Reduces Insulin Delivery and Attenuates the Drop in Glycemia Associated With Exercise in a Randomized Controlled Trial.** *Diabetes care*
Turner, L. V., Sherr, J. L., Zaharieva, D. P., Baran, J., Hirsch, I. B., Bode, B. W., Brown, S. A., Bzdick, S., Church, M. M., Hansen, D. W., Kingman, R., Laffel, L. M., Shah, et al
2025
- **Early Stages of Automated Insulin Delivery.** *Diabetes technology & therapeutics*
Zisser, H., Hovorka, R., Basu, A., Battelino, T., Boughton, C. K., Breton, M. D., Buckingham, B. A., Brown, S. A., Cherňavsky, D. R., Dassau, E., DeBoer, M. D., Doyle, F. J., Ekhlaspour, et al
2025; 27 (S3): S33-S47
- **Metabolic Models, in Silico Trials, and Algorithms.** *Journal of diabetes science and technology*
Cinar, A., Basu, A., Bequette, B. W., Breton, M. D., Buckingham, B., Cengiz, E., Cobelli, C., Dassau, E., Doyle, F. J., Fabris, C., Facchinetti, A., Hirsch, I., Hovorka, et al
2025; 19 (4): 895-907

- **Metabolic Models, in Silico Trials, and Algorithms.** *Diabetes technology & therapeutics*
Cinar, A., Basu, A., Bequette, B. W., Breton, M. D., Buckingham, B., Cengiz, E., Cobelli, C., Dassau, E., Doyle, F. J., Fabris, C., Facchinetti, A., Hirsch, I., Hovorka, et al
2025; 27 (S3): S21-S32
- **Early Stages of Automated Insulin Delivery.** *Journal of diabetes science and technology*
Zisser, H., Hovorka, R., Basu, A., Battelino, T., Boughton, C. K., Breton, M. D., Buckingham, B. A., Brown, S. A., Cherfavyvsky, D. R., Dassau, E., DeBoer, M. D., Doyle, F. J., Ekhlaspour, et al
2025; 19 (4): 908-923
- **Associations of CGM Metrics With Stimulated C-Peptide Measures in Youth With Recent-Onset Type 1 Diabetes.** *Diabetes care*
Neyman, A., DiMeglio, L. A., Bauza, C., Buckingham, B., Clements, M. A., Forlenza, G. P., Sherr, J. L., Kanapka, L., Beck, R. W., Kollman, C., Beasley, S., Cobry, E., Norlander, et al
2025
- **Differences in White Matter Microstructure in Children With Type 1 Diabetes Persist During Longitudinal Follow-up: Relation to Dysglycemia.** *Diabetes*
Mauras, N., Ma, Q., Weinzimer, S. A., White, N. H., Tsalikian, E., Buckingham, B., Fox, L. A., Tamborlane, W., Arbelaez, A. M., Tansey, M., Aye, T., Cato, A., Hershey, et al
2025
- **Algorithm-Driven Initiation and Adaptation of Hybrid Closed-Loop in Young Children with Type 1 Diabetes: A Pilot Study.** *Diabetes technology & therapeutics*
Pavan, J., Cobry, E., Reed, Z. W., Villa-Tamayo, M. F., Diaz C, J. L., DeBoer, M. D., Schoelwer, M., Jost, E., Kingman, R., Holmes, V., Lum, J. W., Koravi, C. L., Buckingham, et al
2025
- **USING AN AI-BASED ADVISOR AND DIGITAL TWINS TO SAFELY INITIATE AND ADJUST AUTOMATED INSULIN DELIVERY SETTINGS IN YOUNG CHILDREN WITH TYPE 1 DIABETES**
Pavan, J., Cobry, E., Reed, Z., Villa-Tamayo, M. F., Castaneda, J., Jost, E., Kingman, R., Lum, J., Beck, R., Deboer, M., Schoelwer, M., Buckingham, B., Wadwa, et al
MARY ANN LIEBERT, INC.2025: E97
- **IMPACT OF EARLY INITIATION OF AUTOMATED INSULIN DELIVERY ON GLYCEMIA TWO YEARS FROM DIAGNOSIS OF TYPE 1 DIABETES**
Van Name, M., Sherr, J., Bauza, C., Buckingham, B., Clements, M., Forlenza, G., Neyman, A., Beck, R., Bailey, R., Kollman, C., Beasley, S., Cobry, E., Norland, et al
MARY ANN LIEBERT, INC.2025: E189-E190
- **ASSOCIATIONS OF CGM METRICS WITH STIMULATED C-PEPTIDE MEASURES IN YOUTH WITH RECENT-ONSET TYPE 1 DIABETES**
DiMeglio, L., Bauza, C., Buckingham, B., Clements, M., Forlenza, G., Sherr, J., Beck, R., Kanapka, L., Kollman, C., Beasley, S., Cobry, E., Norland, L., McDonough, et al
MARY ANN LIEBERT, INC.2025: E65-E66
- **The use of automated insulin delivery around physical activity and exercise in type 1 diabetes: a position statement of the European Association for the Study of Diabetes (EASD) and the International Society for Pediatric and Adolescent Diabetes (ISPAD).** *Diabetologia*
Moser, O., Zaharieva, D. P., Adolfsson, P., Battelino, T., Bracken, R. M., Buckingham, B. A., Danne, T., Davis, E. A., Dovč, K., Forlenza, G. P., Gillard, P., Hofer, S. E., Hovorka, et al
2024
- **The Use of Automated Insulin Delivery around Physical Activity and Exercise in Type 1 Diabetes: A Position Statement of the European Association for the Study of Diabetes (EASD) and the International Society for Pediatric and Adolescent Diabetes (ISPAD).** *Hormone research in paediatrics*
Moser, O., Zaharieva, D., Adolfsson, P., Battelino, T., Bracken, R. M., Buckingham, B. A., Danne, T., Davis, E. A., Dovc, K., Forlenza, G. P., Gillard, P., Hofer, S. E., Hovorka, et al
2024: 1-28
- **Toward Automation: The Road Traveled and Road Ahead for Integrating Automated Insulin Delivery into Inpatient Care.** *Diabetes technology & therapeutics*
Hughes, M. S., Pasquel, F. J., Davis, G. M., Lal, R. A., Buckingham, B. A., Boughton, C. K., Brown, S. A., Bally, L.
2024

- **Efficacy and Safety of a Tubeless AID System Compared With Pump Therapy With CGM in the Treatment of Type 1 Diabetes in Adults With Suboptimal Glycemia: A Randomized, Parallel-Group Clinical Trial.** *Diabetes care*
Renard, E., Weinstock, R. S., Aleppo, G., Bode, B. W., Brown, S. A., Castorino, K., Hirsch, I. B., Kipnes, M. S., Laffel, L. M., Lal, R. A., Penforinis, A., Riveline, J., Shah, et al
2024
- **Psychosocial outcomes with the Omnipod® 5 Automated Insulin Delivery System in caregivers of very young children with type 1 diabetes.** *Diabetes, obesity & metabolism*
MacLeish, S. A., Hood, K. K., Polonsky, W. H., Wood, J. R., Bode, B. W., Forlenza, G. P., Laffel, L. M., Buckingham, B. A., Criego, A. B., Schoelwer, M. J., DeSalvo, D. J., Sherr, J. L., Hansen, et al
2024
- **Empowering Hospitalized Patients With Diabetes: Implementation of a Hospital-wide CGM Policy With EHR-Integrated Validation for Dosing Insulin.** *Diabetes care*
Lee, M. Y., Seav, S. M., Ongwela, L., Lee, J. J., Aubyrn, R., Cao, F. Y., Kalinsky, A., Aparicio Ramos, O., Gu, Y., Kingston, K., Ivanovic, M., Buckingham, B. A., Desai, et al
2024
- **Safety and prescribing recommendations for verapamil in newly diagnosed pediatric type 1 diabetes (T1D): The CLVer experience.** *Journal of clinical & translational endocrinology*
Ekhlaspour, L., Buckingham, B., Bauza, C., Clements, M., Forlenza, G. P., Neyman, A., Norlander, L., Schamberger, M., Sherr, J. L., Bailey, R., Beck, R. W., Kollman, C., Beasley, et al
2024; 36: 100352
- **Impact of Missed and Late Meal Boluses on Glycemic Outcomes in Automated Insulin Delivery-Treated Children and Adolescents with Type 1 Diabetes: A Two-Center, Population-Based, Cohort Study.** *Diabetes technology & therapeutics*
Laugesen, C., Ritschel, T., Ranjan, A., Hsu, L. J., Jørgensen, J. B., Svensson, J., Ekhlaspour, L., Buckingham, B. A., Norgaard, K.
2024
- **Cost-Effectiveness of Closed-Loop Automated Insulin Delivery Using the Cambridge Hybrid Algorithm in Children and Adolescents with Type 1 Diabetes: Results from a Multicenter 6-Month Randomized Trial.** *Journal of diabetes science and technology*
Fox, D. S., Ware, J., Boughton, C. K., Allen, J. M., Wilińska, M. E., Tauschmann, M., Denvir, L., Thankamony, A., Campbell, F., Wadwa, R. P., Buckingham, B. A., Davis, N., DiMeglio, et al
2024: 19322968241231950
- **Digital Technology for Diabetes. Reply.** *The New England journal of medicine*
Hughes, M. S., Addala, A., Buckingham, B.
2024; 390 (10): 963-964
- **Digital Technology for Diabetes REPLY** *NEW ENGLAND JOURNAL OF MEDICINE*
Hughes, M. S., Addala, A., Buckingham, B.
2024; 390 (10): 963-964
- **The Minimally-Invasive Oral Glucose Minimal Model: Estimation of Gastric Retention, Glucose Rate of Appearance, and Insulin Sensitivity From Type 1 Diabetes Data Collected in Real-Life Conditions.** *IEEE transactions on bio-medical engineering*
Faggionato, E., Schiavon, M., Ekhlaspour, L., Buckingham, B. A., Dalla Man, C.
2024; 71 (3): 977-986
- **Decreasing the Burden of Carbohydrate Counting and Meal Announcement with Automated Insulin Delivery, Meal Recognition, and Autocorrection Doses: A Case Study.** *Diabetes technology & therapeutics*
Buckingham, B. A., Bergenstal, R. M.
2024; 26 (S3): 97-101
- **LINKING MEAL COMPOSITION TO POSTPRANDIAL CGM TRACES IN OUTPATIENTS WITH TYPE 1 DIABETES THROUGH NON-LINEAR MIXED EFFECTS MODELING**
Faggionato, E., Boscolo, F., Schiavon, M., Ekhlaspour, L., Buckingham, B., Dalla Man, C.
MARY ANN LIEBERT, INC.2024: A84-A85
- **Glycemic Outcomes Persist for up to 2 Years in Very Young Children with the Omnipod 5 Automated Insulin Delivery System.** *Diabetes technology & therapeutics*
DeSalvo, D. J., Bode, B., Forlenza, G. P., Laffel, L. M., Buckingham, B. A., Criego, A., Schoelwer, M., MacLeish, S. A., Sherr, J. L., Hansen, D., Ly, T. T.

2024

- **Patient reported outcomes (PROs) and user experiences of young children with type 1 diabetes using t:slim X2 insulin pump with control-IQ technology.** *Diabetes research and clinical practice*
Hood, K. K., Schneider-Utaka, A. K., Reed, Z. W., Buckingham, B. A., Cobry, E., DeBoer, M. D., Ekhlaspour, L., Schoelwer, M., Paul Wadwa, R., Lum, J., Kollman, C., Beck, R. W., Breton, et al
2024; 208: 111114
- **Digital Technology for Diabetes.** *The New England journal of medicine*
Hughes, M. S., Addala, A., Buckingham, B.
2023; 389 (22): 2076-2086
- **Diabetic ketoacidosis (DKA) at diagnosis in youth with type 1 diabetes (T1D) is associated with a higher hemoglobin A1c even with intensive insulin management.** *Diabetes technology & therapeutics*
Zaharieva, D. P., Ding, V., Addala, A., Prahald, P., Bishop, F., Hood, K., Desai, M., Wilson, D. M., Buckingham, B. A., Maahs, D. M.
2023
- **Two Years with a Tubeless AID System: A Single-Arm Multicenter Trial in Children, Adolescents, and Adults with Type 1 Diabetes.** *Diabetes technology & therapeutics*
Criego, A., Carlson, A. L., Brown, S., Forlenza, G. P., Bode, B., Levy, C., Hansen, D., Hirsch, I. B., Bergenstal, R. M., Sherr, J. L., Mehta, S., Laffel, L. M., Shah, et al
2023
- **Safety and glycemic outcomes during the MiniMed™ advanced hybrid closed-loop (AHCL) system pivotal trial in children and adolescents with type 1 diabetes.** *Diabetes technology & therapeutics*
Pihoker, C., Shulman, D. I., Forlenza, G. P., Kaiserman, K. B., Sherr, J. L., Thasher, J. R., Buckingham, B. A., Kipnes, M. S., Bode, B. W., Carlson, A. L., Lee, S., Latif, K., Lilienquist, et al
2023
- **Automated Insulin Delivery with Remote Real-Time Continuous Glucose Monitoring for Hospitalized Patients with Diabetes: A Multi-Center, Single-arm, Feasibility Trial.** *Diabetes technology & therapeutics*
Davis, G. M., Hughes, M. S., Brown, S., Sibayan, J., Perez-Guzman, M. C., Stumpf, M., Thompson, Z., Basina, M., Patel, R., Hester, J., Abraham, A., Ly, T. T., Chaney, et al
2023
- **Verapamil and Pancreatic Beta Cell Function in Pediatric Type 1 Diabetes-Reply.** *JAMA*
Forlenza, G. P., Schamberger, M. S., Buckingham, B. A.
2023; 330 (4): 380
- **Psychosocial Outcomes with the Omnipod & REG; 5 Automated Insulin Delivery System in Children and Adolescents with Type 1 Diabetes and Their Caregivers** *PEDIATRIC DIABETES*
Hood, K. K., Polonsky, W. H., MacLeish, S. A., Levy, C. J., Forlenza, G. P., Criego, A. B., Buckingham, B. A., Bode, B. W., Hansen, D. W., Sherr, J. L., Brown, S. A., DeSalvo, D. J., Mehta, et al
2023; 2023
- **Psychosocial Outcomes with the Omnipod® 5 Automated Insulin Delivery System in Children and Adolescents with Type 1 Diabetes and Their Caregivers.** *Pediatric diabetes*
Hood, K. K., Polonsky, W. H., MacLeish, S. A., Levy, C. J., Forlenza, G. P., Criego, A. B., Buckingham, B. A., Bode, B. W., Hansen, D. W., Sherr, J. L., Brown, S. A., DeSalvo, D. J., Mehta, et al
2023; 2023: 8867625
- **Swimming With the Omnipod 5 Automated Insulin Delivery System: Connectivity in the Water.** *Diabetes care*
Hughes, M. S., Kingman, R. S., Hsu, L., Lal, R. A., Buckingham, B. A., Zaharieva, D. P.
2023
- **Glycemic outcomes during early use of the MiniMed 780G advanced hybrid closed-loop system with Guardian 4 sensor.** *Diabetes technology & therapeutics*
Cordero, T. L., Dai, Z., Arrieta, A., Niu, F., Vella, M., Shin, J., Rhinehart, A. S., McVean, J., Lee, S., Slover, R. H., Forlenza, G. P., Shulman, D. I., Pop-Busui, et al
2023

- **Practical Aspects and Exercise Safety Benefits of Automated Insulin Delivery Systems in Type 1 Diabetes.** *Diabetes spectrum : a publication of the American Diabetes Association*
Zaharieva, D. P., Morrison, D., Paldus, B., Lal, R. A., Buckingham, B. A., O'Neal, D. N.
2023; 36 (2): 127-136
- **A Meta-Analysis of Randomized Trial Outcomes for the t:slim X2 Insulin Pump with Control-IQ Technology in Youth and Adults from Age 2 to 72.** *Diabetes technology & therapeutics*
Beck, R. W., Kanapka, L. G., Breton, M. D., Brown, S. A., Wadwa, R. P., Buckingham, B. A., Kollman, C., Kovatchev, B.
2023
- **Trial of Hybrid Closed-Loop Control in Young Children with Type 1 Diabetes.** *The New England journal of medicine*
Wadwa, R. P., Reed, Z. W., Buckingham, B. A., DeBoer, M. D., Ekhlaspour, L., Forlenza, G. P., Schoelwer, M., Lum, J., Kollman, C., Beck, R. W., Breton, M. D., PEDAP Trial Study Group, Wadwa, R. P., et al
2023; 388 (11): 991-1001
- **Effect of Verapamil on Pancreatic Beta Cell Function in Newly Diagnosed Pediatric Type 1 Diabetes: A Randomized Clinical Trial.** *JAMA*
Forlenza, G. P., McVean, J., Beck, R. W., Bauza, C., Bailey, R., Buckingham, B., DiMeglio, L. A., Sherr, J. L., Clements, M., Neyman, A., Evans-Molina, C., Sims, E. K., Messer, et al
2023
- **Effect of Tight Glycemic Control on Pancreatic Beta Cell Function in Newly Diagnosed Pediatric Type 1 Diabetes: A Randomized Clinical Trial.** *JAMA*
McVean, J., Forlenza, G. P., Beck, R. W., Bauza, C., Bailey, R., Buckingham, B., DiMeglio, L. A., Sherr, J. L., Clements, M., Neyman, A., Evans-Molina, C., Sims, E. K., Messer, et al
2023
- **Improved Glycemia with Hybrid Closed-Loop (HCL) Versus Continuous Subcutaneous Insulin Infusion (CSII) Therapy: Results from a Randomized Controlled Trial.** *Diabetes technology & therapeutics*
Garg, S. K., Grunberger, G., Weinstock, R. S., Lawson, M. L., Hirsch, I. B., DiMeglio, L. A., Pop-Busui, R., Phillis-Tsimikas, A., Kipnes, M. S., Lilienquist, D. R., Brazg, R. L., Kudva, Y. C., Buckingham, et al
2022
- **Continuous glucose monitoring and metrics for clinical trials: an international consensus statement.** *The lancet. Diabetes & endocrinology*
Battelino, T., Alexander, C. M., Amiel, S. A., Arreaza-Rubin, G., Beck, R. W., Bergenstal, R. M., Buckingham, B. A., Carroll, J., Ceriello, A., Chow, E., Choudhary, P., Close, K., Danne, et al
2022
- **ISPAD Clinical Practice Consensus Guidelines 2022: Other complications and associated conditions in children and adolescents with type 1 diabetes.** *Pediatric diabetes*
Frohlich-Reiterer, E., Elbarbary, N. S., Simmons, K., Buckingham, B., Humayun, K. N., Johannsen, J., Holl, R. W., Betz, S., Mahmud, F. H.
2022; 23 (8): 1451-1467
- **Positive Impact of the Bionic Pancreas on Diabetes Control in Youth 6-17 Years Old with Type 1 Diabetes: A Multicenter Randomized Trial.** *Diabetes technology & therapeutics*
Messer, L. H., Buckingham, B. A., Cogen, F., Daniels, M., Forlenza, G., Jafri, R. Z., Mauras, N., Muir, A., Wadwa, R. P., White, P. C., Russell, S. J., Damiano, E. R., El-Khatib, et al
2022; 24 (10): 712-725
- **Multicenter, Randomized Trial of a Bionic Pancreas in Type 1 Diabetes.** *The New England journal of medicine*
Russell, S. J., Beck, R. W., Damiano, E. R., El-Khatib, F. H., Ruedy, K. J., Balliro, C. A., Li, Z., Calhoun, P., Wadwa, R. P., Buckingham, B., Zhou, K., Daniels, M., Raskin, et al
2022; 387 (13): 1161-1172
- **Consensus Recommendations for the Use of Automated Insulin Delivery (AID) Technologies in Clinical Practice.** *Endocrine reviews*
Phillip, M., Nimri, R., Bergenstal, R. M., Barnard-Kelly, K., Danne, T., Hovorka, R., Kovatchev, B. P., Messer, L. H., Parkin, C. G., Ambler-Osborn, L., Amiel, S. A., Bally, L., Beck, et al
2022
- **A Pilot randomized trial to examine effects of a hybrid closed-loop insulin delivery system on neurodevelopmental and cognitive outcomes in adolescents with type 1 diabetes.** *Nature communications*
Reiss, A. L., Jo, B., Arbelaez, A. M., Tsalikian, E., Buckingham, B., Weinzimer, S. A., Fox, L. A., Cato, A., White, N. H., Tansey, M., Aye, T., Tamborlane, W., Englert, et al

2022; 13 (1): 4940

- **Lived experience of CamAPS FX closed loop system in youth with type 1 diabetes and their parents.** *Diabetes, obesity & metabolism*
Hood, K. K., Garcia-Willingham, N., Hanes, S., Tanenbaum, M. L., Ware, J., Boughton, C. K., Allen, J. M., Wilinska, M. E., Tauschmann, M., Denvir, L., Thankamony, A., Campbell, F., Wadwa, et al
2022
- **Positive Impact of the Bionic Pancreas on Diabetes Control in Youth 6-17 Years Old with Type 1 Diabetes: A Multicenter Randomized Trial.** *Diabetes technology & therapeutics*
Messer, L. H., Buckingham, B. A., Cogen, F., Daniels, M., Forlenza, G. P., Jafri, R., Mauras, N., Muir, A., Wadwa, R. P., White, P., Russell, S., Damiano, E. R., El-Khatib, et al
2022
- **Safety and Glycemic Outcomes With a Tubeless Automated Insulin Delivery System in Very Young Children With Type 1 Diabetes: A Single-Arm Multicenter Clinical Trial.** *Diabetes care*
Sherr, J. L., Bode, B. W., Forlenza, G. P., Laffel, L. M., Schoelwer, M. J., Buckingham, B. A., Criego, A. B., DeSalvo, D. J., MacLeish, S. A., Hansen, D. W., Ly, T. T.
2022
- **Outpatient Randomized Crossover Comparison of Zone Model Predictive Control Automated Insulin Delivery with Weekly Data Driven Adaptation versus Sensor-Augmented Pump: Results from the International Diabetes Closed Loop Trial 4 (DCLP4).** *Diabetes technology & therapeutics*
Pinsker, J. E., Dassau, E., Deshpande, S., Raghinaru, D., Buckingham, B. A., Kudva, Y. C., Laffel, L. M., Levy, C., Church, M. M., Desrochers, H., Ekhlaspour, L., Kaur, R. J., Levister, et al
2022
- **Pharmacodynamics, pharmacokinetics, safety, and tolerability of a ready-to-use, room temperature, liquid stable glucagon administered via an autoinjector pen to youth with type 1 diabetes.** *Pediatric diabetes*
Buckingham, B., Sherr, J., Prestrelski, S. J., Conoscenti, V.
2022
- **Smartwatch Gesture-Based Meal Reminders Improve Glycemic Control.** *Diabetes, obesity & metabolism*
Corbett, J. P., Hsu, L., Brown, S. A., Kollar, L., Vleugels, K., Buckingham, B., Breton, M. D., Lal, R. A.
2022
- **Outcomes in Pump- and CGM-Baseline Use Subgroups in the International Diabetes Closed-Loop (iDCL) Trial.** *Journal of diabetes science and technology*
Ekhlaspour, L., Raghinaru, D., Forlenza, G. P., Isganaitis, E., Kudva, Y. C., Lam, D. W., Levister, C., O'Malley, G., Church, M. M., Lum, J. W., Buckingham, B., Brown, S. A.
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