Roman Hovorka

List of Publications by Citations

298 papers	12,879 citations	55 h-index	106 g-index
322 ext. papers	15,546 ext. citations	7.9 avg, IF	6.58 L-index

#	Paper	IF	Citations
298	Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range. *Diabetes Care*, **2019**, 42, 1593-1603	14.6	998
297	International Consensus on Use of Continuous Glucose Monitoring. *Diabetes Care*, **2017**, 40, 1631-1640	14.6	872
296	Nonlinear model predictive control of glucose concentration in subjects with type 1 diabetes. *Physiological Measurement*, **2004**, 25, 905-20	2.9	792
295	Intensive insulin therapy: enhanced Model Predictive Control algorithm versus standard care. *Intensive Care Medicine*, **2009**, 35, 123-8	14.5	518
294	Manual closed-loop insulin delivery in children and adolescents with type 1 diabetes: a phase 2 randomised crossover trial. *Lancet, The*, **2010**, 375, 743-51	40	378
293	Home Use of an Artificial Beta Cell in Type 1 Diabetes. *New England Journal of Medicine*, **2015**, 373, 2129-2140	59.2	325
292	Continuous glucose monitoring and closed-loop systems. *Diabetic Medicine*, **2006**, 23, 1-12	3.5	313
291	Partitioning glucose distribution/transport, disposal, and endogenous production during IVGTT. *American Journal of Physiology - Endocrinology and Metabolism*, **2002**, 282, E992-1007	6	242
290	Closed-loop insulin delivery: from bench to clinical practice. *Nature Reviews Endocrinology*, **2011**, 7, 385-95	15.2	225
289	Overnight closed loop insulin delivery (artificial pancreas) in adults with type 1 diabetes: crossover randomised controlled studies. *BMJ, The*, **2011**, 342, d1855	5.9	194
288	Artificial pancreas treatment for outpatients with type 1 diabetes: systematic review and meta-analysis. *BMJ, The*, **2018**, 361, k1310	5.9	192
287	Closed-loop insulin delivery in suboptimally controlled type 1 diabetes: a multicentre, 12-week randomised trial. *Lancet, The*, **2018**, 392, 1321-1329	40	183
286	Insulin kinetics in type-I diabetes: continuous and bolus delivery of rapid acting insulin. *IEEE Transactions on Biomedical Engineering*, **2005**, 52, 3-12	5	171
285	Multicentric, randomized, controlled trial to evaluate blood glucose control by the model predictive control algorithm versus routine glucose management protocols in intensive care unit patients. *Diabetes Care*, **2006**, 29, 271-6	14.6	165
284	Overnight closed-loop insulin delivery in young people with type 1 diabetes: a free-living, randomized clinical trial. *Diabetes Care*, **2014**, 37, 1204-11	14.6	162
283	Simulation environment to evaluate closed-loop insulin delivery systems in type 1 diabetes. *Journal of Diabetes Science and Technology*, **2010**, 4, 132-44	4.1	151
282	Coming of age: the artificial pancreas for type 1 diabetes. *Diabetologia*, **2016**, 59, 1795-805	10.3	151

281	Outcome Measures for Artificial Pancreas Clinical Trials: A Consensus Report. *Diabetes Care*, **2016**, 39, 1175-9	14.6	149
280	Closed-Loop Insulin Delivery during Pregnancy in Women with Type 1 Diabetes. *New England Journal of Medicine*, **2016**, 375, 644-54	59.2	138
279	Clinical review: Consensus recommendations on measurement of blood glucose and reporting glycemic control in critically ill adults. *Critical Care*, **2013**, 17, 229	10.8	136
278	Closed-loop basal insulin delivery over 36 hours in adolescents with type 1 diabetes: randomized clinical trial. *Diabetes Care*, **2013**, 36, 838-44	14.6	128
277	Home use of closed-loop insulin delivery for overnight glucose control in adults with type 1 diabetes: a 4-week, multicentre, randomised crossover study. *Lancet Diabetes and Endocrinology,the* , **2014**, 2, 701-9	18.1	125
276	ISEC: a program to calculate insulin secretion. *Computer Methods and Programs in Biomedicine*, **1996** , 50, 253-64	6.9	125
275	Closing the loop: the adicol experience. *Diabetes Technology and Therapeutics*, **2004**, 6, 307-18	8.1	116
274	Day and night home closed-loop insulin delivery in adults with type 1 diabetes: three-center randomized crossover study. *Diabetes Care*, **2014**, 37, 1931-7	14.6	105
273	Closing the loop overnight at home setting: psychosocial impact for adolescents with type 1 diabetes and their parents. *BMJ Open Diabetes Research and Care*, **2014**, 2, e000025	4.5	101
272	Closed-Loop Insulin Delivery for Glycemic Control in Noncritical Care. *New England Journal of Medicine*, **2018**, 379, 547-556	59.2	100
271	Closed-loop insulin delivery during pregnancy complicated by type 1 diabetes. *Diabetes Care*, **2011**, 34, 406-11	14.6	98
270	A probabilistic approach to glucose prediction and insulin dose adjustment: description of metabolic model and pilot evaluation study. *Computer Methods and Programs in Biomedicine*, **1994**, 41, 153-65	6.9	96
269	Day-and-night glycaemic control with closed-loop insulin delivery versus conventional insulin pump therapy in free-living adults with well controlled type 1 diabetes: an open-label, randomised, crossover study. *Lancet Diabetes and Endocrinology,the*, **2017**, 5, 261-270	18.1	93
268	Blood glucose control by a model predictive control algorithm with variable sampling rate versus a routine glucose management protocol in cardiac surgery patients: a randomized controlled trial. *Journal of Clinical Endocrinology and Metabolism*, **2007**, 92, 2960-4	5.6	88
267	Safety and efficacy of 24-h closed-loop insulin delivery in well-controlled pregnant women with type 1 diabetes: a randomized crossover case series. *Diabetes Care*, **2011**, 34, 2527-9	14.6	87
266	Day-and-Night Hybrid Closed-Loop Insulin Delivery in Adolescents With Type 1 Diabetes: A Free-Living, Randomized Clinical Trial. *Diabetes Care*, **2016**, 39, 1168-74	14.6	86
265	Continuous subcutaneous insulin infusion in diabetes: patient populations, safety, efficacy, and pharmacoeconomics. *Diabetes/Metabolism Research and Reviews*, **2016**, 32, 21-39	7.5	85
264	Day and night closed-loop control in adults with type 1 diabetes: a comparison of two closed-loop algorithms driving continuous subcutaneous insulin infusion versus patient self-management. *Diabetes Care*, **2013**, 36, 3882-7	14.6	83

263	Glycemic variability correlates strongly with postprandial beta-cell dysfunction in a segment of type 2 diabetic patients using oral hypoglycemic agents. *Diabetes Care*, **2009**, 32, 1058-62	14.6	83
262	Tight glycaemic control by an automated algorithm with time-variant sampling in medical ICU patients. *Intensive Care Medicine*, **2008**, 34, 1224-30	14.5	79
261	A simulation model of glucose regulation in the critically ill. *Physiological Measurement*, **2008**, 29, 959-78	2.9	79
260	Comparison of three protocols for tight glycemic control in cardiac surgery patients. *Diabetes Care*, **2009**, 32, 757-61	14.6	78
259	Effects of intravenous infusion of lipid-free apo A-I in humans. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **1996**, 16, 1203-14	9.4	74
258	Psychosocial aspects of closed- and open-loop insulin delivery: closing the loop in adults with Type 1 diabetes in the home setting. *Diabetic Medicine*, **2015**, 32, 601-8	3.5	71
257	Pancreatic beta-cell responsiveness during meal tolerance test: model assessment in normal subjects and subjects with newly diagnosed noninsulin-dependent diabetes mellitus. *Journal of Clinical Endocrinology and Metabolism*, **1998**, 83, 744-50	5.6	71
256	Feasibility of fully automated closed-loop glucose control using continuous subcutaneous glucose measurements in critical illness: a randomized controlled trial. *Critical Care*, **2013**, 17, R159	10.8	69
255	Technology in the management of type 1 diabetes mellitus - current status and future prospects. *Nature Reviews Endocrinology*, **2018**, 14, 464-475	15.2	67
254	Closing the Loop in Adults, Children and Adolescents With Suboptimally Controlled Type 1 Diabetes Under Free Living Conditions: A Psychosocial Substudy. *Journal of Diabetes Science and Technology*, **2017**, 11, 1080-1088	4.1	66
253	Day-and-Night Closed-Loop Insulin Delivery in a Broad Population of Pregnant Women With Type 1 Diabetes: A Randomized Controlled Crossover Trial. *Diabetes Care*, **2018**, 41, 1391-1399	14.6	66
252	Closed-loop insulin delivery for treatment of type 1 diabetes. *BMC Medicine*, **2011**, 9, 120	11.4	63
251	The future of continuous glucose monitoring: closed loop. *Current Diabetes Reviews*, **2008**, 4, 269-79	2.7	63
250	Pathophysiology of postprandial hyperglycaemia in women with type 1 diabetes during pregnancy. *Diabetologia*, **2012**, 55, 282-93	10.3	62
249	Patients' and caregivers' experiences of using continuous glucose monitoring to support diabetes self-management: qualitative study. *BMC Endocrine Disorders*, **2018**, 18, 12	3.3	61
248	Quantifying the acute changes in glucose with exercise in type 1 diabetes: a systematic review and meta-analysis. *Sports Medicine*, **2015**, 45, 587-99	10.6	60
247	Closed-loop insulin delivery in inpatients with type 2 diabetes: a randomised, parallel-group trial. *Lancet Diabetes and Endocrinology,the*, **2017**, 5, 117-124	18.1	59
246	Continuous glucose control in the ICU: report of a 2013 round table meeting. *Critical Care*, **2014**, 18, 226	10.8	58

245	Closed-loop insulin delivery in type 1 diabetes. *Endocrinology and Metabolism Clinics of North America*, **2012**, 41, 105-17	5.5	57
244	How to measure insulin secretion. *Diabetes/metabolism Reviews*, **1994**, 10, 91-117		55
243	Overnight closed-loop insulin delivery with model predictive control: assessment of hypoglycemia and hyperglycemia risk using simulation studies. *Journal of Diabetes Science and Technology*, **2009**, 3, 1109-20	4.1	51
242	Pancreatic □Cell Responsiveness during Meal Tolerance Test: Model Assessment in Normal Subjects and Subjects with Newly Diagnosed Noninsulin-Dependent Diabetes Mellitus. *Journal of Clinical Endocrinology and Metabolism*, **1998**, 83, 744-750	5.6	51
241	Home Use of Day-and-Night Hybrid Closed-Loop Insulin Delivery in Suboptimally Controlled Adolescents With Type 1 Diabetes: A 3-Week, Free-Living, Randomized Crossover Trial. *Diabetes Care*, **2016**, 39, 2019-2025	14.6	51
240	A comparison of six deconvolution techniques. *Journal of Pharmacokinetics and Pharmacodynamics*, **1996**, 24, 283-99		50
239	Home Use of Day-and-Night Hybrid Closed-Loop Insulin Delivery in Very Young Children: A Multicenter, 3-Week, Randomized Trial. *Diabetes Care*, **2019**, 42, 594-600	14.6	49
238	Perioperative Tight Glucose Control Reduces Postoperative Adverse Events in Nondiabetic Cardiac Surgery Patients. *Journal of Clinical Endocrinology and Metabolism*, **2015**, 100, 3081-9	5.6	49
237	Glucose Control in the ICU: A Continuing Story. *Journal of Diabetes Science and Technology*, **2016**, 10, 1372-1381	4.1	49
236	Measuring pre-hepatic insulin secretion using a population model of C-peptide kinetics: accuracy and required sampling schedule. *Diabetologia*, **1998**, 41, 548-54	10.3	48
235	Automated overnight closed-loop glucose control in young children with type 1 diabetes. *Diabetes Technology and Therapeutics*, **2011**, 13, 419-24	8.1	45
234	Artificial pancreas: an emerging approach to treat Type 1 diabetes. *Expert Review of Medical Devices* , **2009**, 6, 401-10	3.5	45
233	On-line adaptive algorithm with glucose prediction capacity for subcutaneous closed loop control of glucose: evaluation under fasting conditions in patients with Type 1 diabetes. *Diabetic Medicine*, **2006**, 23, 90-3	3.5	45
232	Evaluation of glucose controllers in virtual environment: methodology and sample application. *Artificial Intelligence in Medicine*, **2004**, 32, 171-81	7.4	45
231	Reduced burden of diabetes and improved quality of life: Experiences from unrestricted day-and-night hybrid closed-loop use in very young children with type 1 diabetes. *Pediatric Diabetes* , **2019**, 20, 794-799	3.6	43
230	Attainment of metabolic goals in the integrated UK islet transplant program with locally isolated and transported preparations. *American Journal of Transplantation*, **2013**, 13, 3236-43	8.7	43
229	Treatment with recombinant human insulin-like growth factor (rhIGF)-I/rhIGF binding protein-3 complex improves metabolic control in subjects with severe insulin resistance. *Journal of Clinical Endocrinology and Metabolism*, **2010**, 95, 2113-22	5.6	43
228	Evaluation of a portable ambulatory prototype for automated overnight closed-loop insulin delivery in young people with type 1 diabetes. *Pediatric Diabetes*, **2012**, 13, 449-53	3.6	42

227	Is an artificial pancreas (closed-loop system) for Type 1 diabetes effective?. *Diabetic Medicine*, **2019**, 36, 279-286	3.5	42
226	Assessing performance of closed-loop insulin delivery systems by continuous glucose monitoring: drawbacks and way forward. *Diabetes Technology and Therapeutics*, **2013**, 15, 4-12	8.1	40
225	Pharmacokinetics of insulin aspart in pump-treated subjects with type 1 diabetes: reproducibility and effect of age, weight, and duration of diabetes. *Diabetes Care*, **2013**, 36, e173-4	14.6	40
224	Management of diabetes using adaptive control. *International Journal of Adaptive Control and Signal Processing*, **2005**, 19, 309-325	2.8	40
223	New closed-loop insulin systems. *Diabetologia*, **2021**, 64, 1007-1015	10.3	39
222	Prandial hypertriglyceridemia in metabolic syndrome is due to an overproduction of both chylomicron and VLDL triacylglycerol. *Diabetes*, **2013**, 62, 4063-9	0.9	38
221	Parental attitudes towards overnight closed-loop glucose control in children with type 1 diabetes. *Diabetes Technology and Therapeutics*, **2010**, 12, 35-9	8.1	38
220	Feasibility of closed-loop insulin delivery in type 2 diabetes: a randomized controlled study. *Diabetes Care*, **2014**, 37, 1198-203	14.6	37
219	Young Children Have Higher Variability of Insulin Requirements: Observations During Hybrid Closed-Loop Insulin Delivery. *Diabetes Care*, **2019**, 42, 1344-1347	14.6	36
218	Variability of Insulin Requirements Over 12 Weeks of Closed-Loop Insulin Delivery in Adults With Type 1 Diabetes. *Diabetes Care*, **2016**, 39, 830-2	14.6	36
217	Evaluating the accuracy and large inaccuracy of two continuous glucose monitoring systems. *Diabetes Technology and Therapeutics*, **2013**, 15, 143-9	8.1	36
216	The use of continuous glucose monitoring combined with computer-based eMPC algorithm for tight glucose control in cardiosurgical ICU. *BioMed Research International*, **2013**, 2013, 186439	3	35
215	IGF-I treatment in adults with type 1 diabetes: effects on glucose and protein metabolism in the fasting state and during a hyperinsulinemic-euglycemic amino acid clamp. *Diabetes*, **2000**, 49, 789-96	0.9	35
214	Suspended insulin infusion during overnight closed-loop glucose control in children and adolescents with Type 1 diabetes. *Diabetic Medicine*, **2010**, 27, 480-4	3.5	34
213	Participants' Experiences of, and Views About, Daytime Use of a Day-and-Night Hybrid Closed-Loop System in Real Life Settings: Longitudinal Qualitative Study. *Diabetes Technology and Therapeutics*, **2019**, 21, 119-127	8.1	33
212	Accuracy of subcutaneous continuous glucose monitoring in critically ill adults: improved sensor performance with enhanced calibrations. *Diabetes Technology and Therapeutics*, **2014**, 16, 97-101	8.1	33
211	Absorption patterns of meals containing complex carbohydrates in type 1 diabetes. *Diabetologia*, **2013**, 56, 1108-17	10.3	33
210	Stochastic Virtual Population of Subjects With Type 1 Diabetes for the Assessment of Closed-Loop Glucose Controllers. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 3524-33	5	33

209	Modeling Day-to-Day Variability of Glucose-Insulin Regulation Over 12-Week Home Use of Closed-Loop Insulin Delivery. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 1412-1419	5	33
208	Continuous subcutaneous insulin infusion therapy and multiple daily insulin injections in type 1 diabetes mellitus: a comparative overview and future horizons. *Expert Opinion on Drug Delivery*, **2016**, 13, 389-400	8	32
207	Improving glycemic control in critically ill patients: personalized care to mimic the endocrine pancreas. *Critical Care*, **2018**, 22, 182	10.8	32
206	Effects of prolonged fasting and sustained lipolysis on insulin secretion and insulin sensitivity in normal subjects. *American Journal of Physiology - Endocrinology and Metabolism*, **2009**, 296, E454-61	6	32
205	Fully closed-loop insulin delivery in inpatients receiving nutritional support: a two-centre, open-label, randomised controlled trial. *Lancet Diabetes and Endocrinology,the*, **2019**, 7, 368-377	18.1	31
204	Roadmap to the artificial pancreas. *Diabetes Research and Clinical Practice*, **2006**, 74, S178-S182	7.4	31
203	Experiences of closed-loop insulin delivery among pregnant women with Type 1 diabetes. *Diabetic Medicine*, **2017**, 34, 1461-1469	3.5	29
202	Causal probabilistic network modeling□llustration of its role in the management of chronic diseases. *IBM Systems Journal*, **1992**, 31, 635-648		29
201	A consultation system for insulin therapy. *Computer Methods and Programs in Biomedicine*, **1990**, 32, 303-10	1.9	29
200	Advances in artificial pancreas systems. *Science Translational Medicine*, **2019**, 11,	17.5	27
199	Accuracy of Continuous Glucose Monitoring During Three Closed-Loop Home Studies Under Free-Living Conditions. *Diabetes Technology and Therapeutics*, **2015**, 17, 801-7	8.1	27
198	Feasibility of overnight closed-loop therapy in young children with type 1 diabetes aged 3-6 years: comparison between diluted and standard insulin strength. *BMJ Open Diabetes Research and Care*, **2014**, 2, e000040	4.5	27
197	Glucose control in the intensive care unit by use of continuous glucose monitoring: what level of measurement error is acceptable?. *Clinical Chemistry*, **2014**, 60, 1500-9	5.5	27
196	DIAS--the diabetes advisory system: an outline of the system and the evaluation results obtained so far. *Computer Methods and Programs in Biomedicine*, **1997**, 54, 49-58	6.9	27
195	In silico testing--impact on the progress of the closed loop insulin infusion for critically ill patients project. *Journal of Diabetes Science and Technology*, **2008**, 2, 417-23	4.1	27
194	Quantitative measurement of 3-O-methyl-D-glucose by gas chromatography-mass spectrometry as a measure of glucose transport in vivo. *Journal of Mass Spectrometry*, **1996**, 31, 961-6	2.2	27
193	Pharmacokinetics of insulin aspart in pregnant women with type 1 diabetes: every day is different. *Diabetes Care*, **2014**, 37, e121-2	14.6	26
192	Simulation models for in silico testing of closed-loop glucose controllers in type 1 diabetes. *Drug Discovery Today: Disease Models*, **2008**, 5, 289-298	1.3	26

191	Continuous Glucose Monitors and Automated Insulin Dosing Systems in the Hospital Consensus Guideline. *Journal of Diabetes Science and Technology*, **2020**, 14, 1035-1064	4.1	26
190	Efficacy and safety of glucose control with Space GlucoseControl in the medical intensive care unit--an open clinical investigation. *Diabetes Technology and Therapeutics*, **2012**, 14, 690-5	8.1	25
189	Fitting dynamic models with forcing functions: application to continuous glucose monitoring in insulin therapy. *Statistics in Medicine*, **2011**, 30, 2234-50	2.3	25
188	Preliminary experience of the DIAS computer model in providing insulin dose advice to patients with insulin dependent diabetes. *Computer Methods and Programs in Biomedicine*, **1998**, 56, 157-64	6.9	25
187	Hybrid closed-loop glucose control with faster insulin aspart compared with standard insulin aspart in adults with type 1 diabetes: A double-blind, multicentre, multinational, randomized, crossover study. *Diabetes, Obesity and Metabolism*, **2021**, 23, 1389-1396	6.7	25
186	Closed-loop for type 1 diabetes - an introduction and appraisal for the generalist. *BMC Medicine*, **2017**, 15, 14	11.4	24
185	Safety of closed-loop therapy during reduction or omission of meal boluses in adolescents with type 1 diabetes: a randomized clinical trial. *Diabetes, Obesity and Metabolism*, **2014**, 16, 1174-8	6.7	24
184	Accuracy of continuous glucose monitoring during exercise in type 1 diabetes pregnancy. *Diabetes Technology and Therapeutics*, **2013**, 15, 223-9	8.1	24
183	Unsupervised home use of an overnight closed-loop system over 3-4 weeks: a pooled analysis of randomized controlled studies in adults and adolescents with type 1 diabetes. *Diabetes, Obesity and Metabolism*, **2015**, 17, 452-8	6.7	23
182	Glucose-responsive insulin delivery for type 1 diabetes: The artificial pancreas story. *International Journal of Pharmaceutics*, **2018**, 544, 309-318	6.5	23
181	Calculating glucose fluxes during meal tolerance test: a new computational approach. *American Journal of Physiology - Endocrinology and Metabolism*, **2007**, 293, E610-9	6	23
180	Evaluation of nonlinear regression approaches to estimation of insulin sensitivity by the minimal model with reference to Bayesian hierarchical analysis. *American Journal of Physiology - Endocrinology and Metabolism*, **2006**, 291, E167-74	6	23
179	Closed-loop insulin delivery: towards improved diabetes care. *Discovery Medicine*, **2012**, 13, 159-70	2.5	23
178	Finding the right route for insulin delivery - an overview of implantable pump therapy. *Expert Opinion on Drug Delivery*, **2017**, 14, 1103-1111	8	22
177	Interstitial glucose kinetics in subjects with type 1 diabetes under physiologic conditions. *Metabolism: Clinical and Experimental*, **2004**, 53, 1484-91	12.7	22
176	Five-compartment model of insulin kinetics and its use to investigate action of chloroquine in NIDDM. *American Journal of Physiology - Endocrinology and Metabolism*, **1993**, 265, E162-75	6	22
175	Fully closed-loop insulin delivery improves glucose control of inpatients with type 2 diabetes receiving hemodialysis. *Kidney International*, **2019**, 96, 593-596	9.9	21
174	Closed-loop control in insulin pumps for type-1 diabetes mellitus: safety and efficacy. *Expert Review of Medical Devices*, **2020**, 17, 707-720	3.5	21

173	Evaluating glycemic control algorithms by computer simulations. *Diabetes Technology and Therapeutics*, **2011**, 13, 713-22	8.1	21
172	Bayesian hierarchical approach to estimate insulin sensitivity by minimal model. *Clinical Science*, **2003**, 105, 551-60	6.5	21
171	Population and individual minimal modeling of the frequently sampled insulin-modified intravenous glucose tolerance test. *Metabolism: Clinical and Experimental*, **2004**, 53, 1349-54	12.7	21
170	Meta-analysis of overnight closed-loop randomized studies in children and adults with type 1 diabetes: the Cambridge cohort. *Journal of Diabetes Science and Technology*, **2011**, 5, 1352-62	4.1	20
169	Hospital glucose control: safe and reliable glycemic control using enhanced model predictive control algorithm in medical intensive care unit patients. *Diabetes Technology and Therapeutics*, **2010**, 12, 405-12	8.1	19
168	A Model-Based Approach to Insulin Adjustment. *Lecture Notes in Medical Informatics*, **1991**, 239-248		19
167	The impact of using a closed-loop system on food choices and eating practices among people with Type 1 diabetes: a qualitative study involving adults, teenagers and parents. *Diabetic Medicine*, **2019**, 36, 753-760	3.5	19
166	Physical activity energy expenditure and glucose control in pregnant women with type 1 diabetes: is 30 minutes of daily exercise enough?. *Diabetes Care*, **2013**, 36, 1095-101	14.6	18
165	Safety, efficacy and glucose turnover of reduced prandial boluses during closed-loop therapy in adolescents with type 1 diabetes: a randomized clinical trial. *Diabetes, Obesity and Metabolism*, **2015**, 17, 1173-9	6.7	18
164	Using a double blind controlled clinical trial to evaluate the function of a Diabetes Advisory System: a feasible approach?. *Computer Methods and Programs in Biomedicine*, **1998**, 56, 165-73	6.9	18
163	CODE: a deconvolution program implementing a regularization method of deconvolution constrained to non-negative values. Description and pilot evaluation. *Biopharmaceutics and Drug Disposition*, **1998**, 19, 39-53	1.7	18
162	Evaluation of implementation of a fully automated algorithm (enhanced model predictive control) in an interacting infusion pump system for establishment of tight glycemic control in medical intensive care unit patients. *Journal of Diabetes Science and Technology*, **2008**, 2, 963-70	4.1	18
161	Use of the DIAS model to predict unrecognised hypoglycaemia in patients with insulin-dependent diabetes. *Computer Methods and Programs in Biomedicine*, **1996**, 50, 241-6	6.9	18
160	Unsupervised overnight closed loop insulin delivery during free living: analysis of randomised cross-over home studies in adults and adolescents with type 1 diabetes. *Lancet, The*, **2015**, 385 Suppl 1, S96	40	17
159	Impact of liver fat on the differential partitioning of hepatic triacylglycerol into VLDL subclasses on high and low sugar diets. *Clinical Science*, **2017**, 131, 2561-2573	6.5	17
158	Bringing closed-loop home: recent advances in closed-loop insulin delivery. *Current Opinion in Endocrinology, Diabetes and Obesity*, **2014**, 21, 95-101	4	17
157	Validity of triple- and dual-tracer techniques to estimate glucose appearance. *American Journal of Physiology - Endocrinology and Metabolism*, **2012**, 302, E1493-501	6	17
156	Measurement delay associated with the Guardian RT continuous glucose monitoring system. *Diabetic Medicine*, **2010**, 27, 117-22	3.5	17

155	Insulin pump therapy in youth with type 1 diabetes: toward closed-loop systems. *Expert Opinion on Drug Delivery*, **2014**, 11, 943-55	8	16
154	Associations of glucose control with insulin sensitivity and pancreatic beta-cell responsiveness in newly presenting type 2 diabetes. *Journal of Clinical Endocrinology and Metabolism*, **2002**, 87, 198-203	5.6	16
153	Randomized Trial of Closed-Loop Control in Very Young Children with Type 1 Diabetes.. *New England Journal of Medicine*, **2022**, 386, 209-219	59.2	16
152	Women's Experiences of Day-and-Night Closed-Loop Insulin Delivery During Type 1 Diabetes Pregnancy. *Journal of Diabetes Science and Technology*, **2018**, 12, 1125-1131	4.1	16
151	Pharmacokinetics of diluted (U20) insulin aspart compared with standard (U100) in children aged 3-6 years with type 1 diabetes during closed-loop insulin delivery: a randomised clinical trial. *Diabetologia*, **2015**, 58, 687-90	10.3	15
150	Glucose control in intensive care: usability, efficacy and safety of Space GlucoseControl in two medical European intensive care units. *BMC Endocrine Disorders*, **2014**, 14, 62	3.3	15
149	Insulin administration and rate of glucose appearance in people with type 1 diabetes. *Diabetes Care* , **2008**, 31, 2183-7	14.6	15
148	Multicentric, randomized, controlled trial to evaluate blood glucose control by the model predictive control algorithm versus routine glucose management protocols in intensive care unit patients: Response to Ligtenberg et al. *Diabetes Care*, **2006**, 29, 1987-8	14.6	15
147	Evaluating Glucose Control With a Novel Composite Continuous Glucose Monitoring Index. *Journal of Diabetes Science and Technology*, **2020**, 14, 277-283	4.1	15
146	Glucose control in non-critically ill inpatients with diabetes: towards closed-loop. *Diabetes, Obesity and Metabolism*, **2014**, 16, 500-9	6.7	14
145	Computer models of albumin and haemoglobin glycation. *Computer Methods and Programs in Biomedicine*, **1990**, 32, 259-63	6.9	14
144	Glucose Management Indicator (GMI): Insights and Validation Using Guardian 3 and Navigator 2 Sensor Data. *Diabetes Care*, **2019**, 42, e60-e61	14.6	13
143	Assessing the effectiveness of a 3-month day-and-night home closed-loop control combined with pump suspend feature compared with sensor-augmented pump therapy in youths and adults with suboptimally controlled type 1 diabetes: a randomised parallel study protocol. *BMJ Open*, **2017**, 7, e016738	3	13
142	DIAS-NIDDM--a model-based decision support system for insulin dose adjustment in insulin-treated subjects with NIDDM. *Computer Methods and Programs in Biomedicine*, **1998**, 56, 175-91	6.9	13
141	Mass kinetics of apolipoprotein A-I in interstitial fluid after administration of intravenous apolipoprotein A-I/lecithin discs in humans. *Journal of Lipid Research*, **2006**, 47, 975-81	6.3	13
140	Health professionals' views about who would benefit from using a closed-loop system: a qualitative study. *Diabetic Medicine*, **2020**, 37, 1030-1037	3.5	13
139	Lixisenatide Reduces Chylomicron Triacylglycerol by Increased Clearance. *Journal of Clinical Endocrinology and Metabolism*, **2019**, 104, 359-368	5.6	12
138	Broadening the Debate About Post-trial Access to Medical Interventions: A Qualitative Study of Participant Experiences at the End of a Trial Investigating a Medical Device to Support Type 1 Diabetes Self-Management. *AJOB Empirical Bioethics*, **2019**, 10, 100-112	3	12

137	Holistic Impact of Closed-Loop Technology on People With Type 1 Diabetes. *Journal of Diabetes Science and Technology*, **2015**, 9, 932-3	4.1	12
136	Bridging technology and clinical practice: innovating inpatient hyperglycaemia management in non-critical care settings. *Diabetic Medicine*, **2018**, 35, 460-471	3.5	12
135	Gender differences in VLDL1 and VLDL2 triglyceride kinetics and fatty acid kinetics in obese postmenopausal women and obese men. *Journal of Clinical Endocrinology and Metabolism*, **2012**, 97, 2475-81	5.6	12
134	Grading system to assess clinical performance of closed-loop glucose control. *Diabetes Technology and Therapeutics*, **2005**, 7, 72-82	8.1	12
133	The artificial pancreas. *Current Opinion in Organ Transplantation*, **2020**, 25, 336-342	2.5	12
132	Modelling endogenous insulin concentration in type 2 diabetes during closed-loop insulin delivery. *BioMedical Engineering OnLine*, **2015**, 14, 19	4.1	11
131	Artificial Pancreas Project at Cambridge 2013. *Diabetic Medicine*, **2015**, 32, 987-92	3.5	11
130	What Training, Support, and Resourcing Do Health Professionals Need to Support People Using a Closed-Loop System? A Qualitative Interview Study with Health Professionals Involved in the Closed Loop from Onset in Type 1 Diabetes (CLOuD) Trial. *Diabetes Technology and Therapeutics*, **2020**, 22, 468-475	8.1	11
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