Jessica R Castle

List of Publications by Year
in descending order

61 papers	2,301 citations	186209 28 h-index	223716 46 g-index
62 all docs	62 docs citations	62 times ranked	1901 citing authors

#	Article	IF	Citations
1	A Glycemia Risk Index (GRI) of Hypoglycemia and Hyperglycemia for Continuous Glucose Monitoring Validated by Clinician Ratings. Journal of Diabetes Science and Technology, 2023, 17, 1226-1242.	1.3	69
2	Opportunities and challenges in closed-loop systems in type 1 diabetes. Lancet Diabetes and Endocrinology,the, 2022, 10, 6-8.	5.5	14
3	Quantifying the impact of physical activity on future glucose trends using machine learning. IScience, 2022, 25, 103888.	1.9	16
4	Editorial Cycles and Continuity of <i>Diabetes Care</i>. Diabetes Care, 2022, 45, 1493-1494.	4.3	0
5	More Time in Glucose Range During Exercise Days than Sedentary Days in Adults Living with Type 1 Diabetes. Diabetes Technology and Therapeutics, 2021, 23, 376-383.	2.4	27
6	Separating insulin-mediated and non-insulin-mediated glucose uptake during and after aerobic exercise in type 1 diabetes. American Journal of Physiology - Endocrinology and Metabolism, 2021, 320, E425-E437.	1.8	17
7	Diabetes Technology Meeting 2020. Journal of Diabetes Science and Technology, 2021, 15, 916-960.	1.3	1
8	Patient Input for Design of a Decision Support Smartphone Application for Type 1 Diabetes. Journal of Diabetes Science and Technology, 2020, 14, 1081-1087.	1.3	5
9	Role of Glucagon in Automated Insulin Delivery. Endocrinology and Metabolism Clinics of North America, 2020, 49, 179-202.	1.2	16
10	Dual-Hormone Closed-Loop System Using a Liquid Stable Glucagon Formulation Versus Insulin-Only Closed-Loop System Compared With a Predictive Low Glucose Suspend System: An Open-Label, Outpatient, Single-Center, Crossover, Randomized Controlled Trial. Diabetes Care, 2020, 43, 2721-2729.	4.3	32
11	Recent Advances in Insulin Therapy. Diabetes Technology and Therapeutics, 2020, 22, 929-936.	2.4	19
12	An artificial intelligence decision support system for the management of type 1 diabetes. Nature Metabolism, 2020, 2, 612-619.	5.1	89
13	Where Do We Stand with Closed-Loop Systems and Their Challenges?. Diabetes Technology and Therapeutics, 2020, 22, 485-491.	2.4	4
14	Measuring glucose at the site of insulin delivery with a redox-mediated sensor. Biosensors and Bioelectronics, 2020, 165, 112221.	5.3	6
15	Predicting and Preventing Nocturnal Hypoglycemia in Type 1 Diabetes Using Big Data Analytics and Decision Theoretic Analysis. Diabetes Technology and Therapeutics, 2020, 22, 801-811.	2.4	19
16	How COVID-19 Rapidly Transformed Clinical Practice at the Harold Schnitzer Diabetes Health Center Now and for the Future. Journal of Diabetes Science and Technology, 2020, 14, 721-722.	1.3	8
17	Accuracy of the Dexcom G6 Glucose Sensor during Aerobic, Resistance, and Interval Exercise in Adults with Type 1 Diabetes. Biosensors, 2020, 10, 138.	2.3	23
18	A statistical virtual patient population for the glucoregulatory system in type 1 diabetes with integrated exercise model. PLoS ONE, 2019, 14, e0217301.	1.1	46

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19	Adaptive tuning of basal and bolus insulin to reduce postprandial hypoglycemia in a hybrid artificial pancreas. Journal of Process Control, 2019, 80, 247-254.	1.7	12
20	Adaptive Control of an Artificial Pancreas Using Model Identification, Adaptive Postprandial Insulin Delivery, and Heart Rate and Accelerometry as Control Inputs. Journal of Diabetes Science and Technology, 2019, 13, 1044-1053.	1.3	23
21	How Well Do Continuous Glucose Monitoring Systems Perform During Exercise?. Diabetes Technology and Therapeutics, 2019, 21, 305-309.	2.4	8
22	Effect of Aerobic and Resistance Exercise on Glycemic Control in Adults With Type 1 Diabetes. Canadian Journal of Diabetes, 2019, 43, 406-414.e1.	0.4	52
23	Prediction of Hypoglycemia During Aerobic Exercise in Adults With Type 1 Diabetes. Journal of Diabetes Science and Technology, 2019, 13, 919-927.	1.3	47
24	Long-Term Safety and Tolerability of Dasiglucagon, a Stable-in-Solution Glucagon Analogue. Diabetes Technology and Therapeutics, 2019, 21, 94-96.	2.4	17
25	Stable Liquid Glucagon: Beyond Emergency Hypoglycemia Rescue. Journal of Diabetes Science and Technology, 2018, 12, 847-853.	1.3	47
26	The effect of exercise on sleep in adults with type 1 diabetes. Diabetes, Obesity and Metabolism, 2018, 20, 443-447.	2.2	29
27	Control of Postprandial Hyperglycemia in Type 1 Diabetes by 24-Hour Fixed-Dose Coadministration of Pramlintide and Regular Human Insulin: A Randomized, Two-Way Crossover Study. Diabetes Care, 2018, 41, 2346-2352.	4.3	39
28	Is Mini-Dose Glucagon the Answer to Preventing Exercise-Related Dysglycemia?. Diabetes Care, 2018, 41, 1842-1843.	4.3	1
29	Randomized Outpatient Trial of Single- and Dual-Hormone Closed-Loop Systems That Adapt to Exercise Using Wearable Sensors. Diabetes Care, 2018, 41, 1471-1477.	4.3	123
30	Accuracy of Wrist-Worn Activity Monitors During Common Daily Physical Activities and Types of Structured Exercise: Evaluation Study. JMIR MHealth and UHealth, 2018, 6, e10338.	1.8	117
31	An Amperometric Glucose Sensor Integrated into an Insulin Delivery Cannula: In Vitro and In Vivo Evaluation. Diabetes Technology and Therapeutics, 2017, 19, 226-236.	2.4	9
32	Future of Automated Insulin Delivery Systems. Diabetes Technology and Therapeutics, 2017, 19, S-67-S-72.	2.4	31
33	Will the First Approved Automated Insulin Delivery System Be a Game-Changer in Type 1 Diabetes Management?. Diabetes Technology and Therapeutics, 2017, 19, 137-139.	2.4	3
34	Advances in Subcutaneous Glucose Sensing. Diabetes Technology and Therapeutics, 2017, 19, 441-442.	2.4	0
35	Modeling Glucagon Action in Patients With Type 1 Diabetes. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 1163-1171.	3.9	12
36	Outcome Measures for Artificial Pancreas Clinical Trials: A Consensus Report. Diabetes Care, 2016, 39, 1175-1179.	4.3	195

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37	Nonadjunctive Use of Continuous Glucose Monitoring for Diabetes Treatment Decisions. Journal of Diabetes Science and Technology, 2016, 10, 1169-1173.	1.3	45
38	Comparative Pharmacokinetic/Pharmacodynamic Study of Liquid Stable Glucagon Versus Lyophilized Glucagon in Type 1 Diabetes Subjects. Journal of Diabetes Science and Technology, 2016, 10, 1101-1107.	1.3	33
39	A Novel, Stable, Aqueous Glucagon Formulation Using Ferulic Acid as an Excipient. Journal of Diabetes Science and Technology, 2015, 9, 17-23.	1.3	20
40	Development of a Highly Stable, Nonaqueous Glucagon Formulation for Delivery via Infusion Pump Systems. Journal of Diabetes Science and Technology, 2015, 9, 24-33.	1.3	42
41	Is glucagon needed in type 1 diabetes?. Lancet Diabetes and Endocrinology,the, 2015, 3, 578-579.	5.5	5
42	Fabrication of a Flexible Amperometric Glucose Sensor Using Additive Processes. ECS Journal of Solid State Science and Technology, 2015, 4, P3069-P3074.	0.9	25
43	Incorporating an Exercise Detection, Grading, and Hormone Dosing Algorithm Into the Artificial Pancreas Using Accelerometry and Heart Rate. Journal of Diabetes Science and Technology, 2015, 9, 1175-1184.	1.3	89
44	Effect of Repeated Glucagon Doses on Hepatic Glycogen in Type 1 Diabetes: Implications for a Bihormonal Closed-Loop System. Diabetes Care, 2015, 38, 2115-2119.	4.3	26
45	Automated Control of an Adaptive Bihormonal, Dual-Sensor Artificial Pancreas and Evaluation During Inpatient Studies. IEEE Transactions on Biomedical Engineering, 2014, 61, 2569-2581.	2.5	75
46	Biochemical Stabilization of Glucagon at Alkaline pH. Diabetes Technology and Therapeutics, 2014, 16, 747-758.	2.4	14
47	Can Glucose Be Monitored Accurately at the Site of Subcutaneous Insulin Delivery?. Journal of Diabetes Science and Technology, 2014, 8, 568-574.	1.3	9
48	Modeling the Glucose Sensor Error. IEEE Transactions on Biomedical Engineering, 2014, 61, 620-629.	2.5	104
49	Quantification of the Glycemic Response to Microdoses of Subcutaneous Glucagon at Varying Insulin Levels. Diabetes Care, 2014, 37, 3054-3060.	4.3	47
50	Mechanisms of glucagon degradation at alkaline pH. Peptides, 2013, 45, 40-47.	1.2	38
51	The Accuracy Benefit of Multiple Amperometric Glucose Sensors in People With Type 1 Diabetes. Diabetes Care, 2012, 35, 706-710.	4.3	30
52	Discomfort from an Alkaline Formulation Delivered Subcutaneously in Humans. Clinical Drug Investigation, 2012, 32, 433-438.	1.1	10
53	Stable Liquid Glucagon Formulations for Rescue Treatment and Bi-Hormonal Closed-Loop Pancreas. Current Diabetes Reports, 2012, 12, 705-710.	1.7	33
54	Development of a fully automated closed loop artificial pancreas control system with dual pump delivery of insulin and glucagon. , 2011, 2011, 397-400.		14

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55	Safe Glycemic Management during Closed-Loop Treatment of Type 1 Diabetes: The Role of Glucagon, Use of Multiple Sensors, and Compensation for Stress Hyperglycemia. Journal of Diabetes Science and Technology, 2011, 5, 1373-1380.	1.3	30
56	A Controlled Study of the Effectiveness of an Adaptive Closed-Loop Algorithm to Minimize Corticosteroid-Induced Stress Hyperglycemia in Type 1 Diabetes. Journal of Diabetes Science and Technology, 2011, 5, 1312-1326.	1.3	34
57	Amperometric Glucose Sensors: Sources of Error and Potential Benefit of Redundancy. Journal of Diabetes Science and Technology, 2010, 4, 221-225.	1.3	80
58	Factors Influencing the Effectiveness of Glucagon for Preventing Hypoglycemia. Journal of Diabetes Science and Technology, 2010, 4, 1305-1310.	1.3	43
59	Continuous Glucose Monitoring in Subjects with Type 1 Diabetes: Improvement in Accuracy by Correcting for Background Current. Diabetes Technology and Therapeutics, 2010, 12, 921-928.	2.4	16
60	Novel Use of Glucagon in a Closed-Loop System for Prevention of Hypoglycemia in Type 1 Diabetes. Diabetes Care, 2010, 33, 1282-1287.	4.3	209
61	A Review of Closed-Loop Algorithms for Glycemic Control in the Treatment of Type 1 Diabetes. Algorithms, 2009, 2, 518-532.	1.2	54