

# Richard D Dimarchi

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7286099/publications.pdf>

Version: 2024-02-01

106  
papers

6,961  
citations

116194

36  
h-index

68831

81  
g-index

109  
all docs

109  
docs citations

109  
times ranked

6734  
citing authors

#	ARTICLE	IF	CITATIONS
1	A new glucagon and GLP-1 co-agonist eliminates obesity in rodents. <i>Nature Chemical Biology</i> , 2009, 5, 749-757.	3.9	512
2	A rationally designed monomeric peptide triagonist corrects obesity and diabetes in rodents. <i>Nature Medicine</i> , 2015, 21, 27-36.	15.2	481
3	Unimolecular Dual Incretins Maximize Metabolic Benefits in Rodents, Monkeys, and Humans. <i>Science Translational Medicine</i> , 2013, 5, 209ra151.	5.8	461
4	Anti-obesity drug discovery: advances and challenges. <i>Nature Reviews Drug Discovery</i> , 2022, 21, 201-223.	21.5	357
5	The metabolic actions of glucagon revisited. <i>Nature Reviews Endocrinology</i> , 2010, 6, 689-697.	4.3	292
6	Leptin: Structure, Function and Biology. <i>Vitamins and Hormones</i> , 2005, 71, 345-372.	0.7	259
7	Targeted estrogen delivery reverses the metabolic syndrome. <i>Nature Medicine</i> , 2012, 18, 1847-1856.	15.2	241
8	The Sustained Effects of a Dual GIP/GLP-1 Receptor Agonist, NNC0090-2746, in Patients with Type 2 Diabetes. <i>Cell Metabolism</i> , 2017, 26, 343-352.e2.	7.2	238
9	Pursuit of a perfect insulin. <i>Nature Reviews Drug Discovery</i> , 2016, 15, 425-439.	21.5	205
10	Unimolecular Polypharmacy for Treatment of Diabetes and Obesity. <i>Cell Metabolism</i> , 2016, 24, 51-62.	7.2	198
11	Fibroblast Growth Factor 21 Mediates Specific Glucagon Actions. <i>Diabetes</i> , 2013, 62, 1453-1463.	0.3	191
12	Insulin structure and function. <i>Biopolymers</i> , 2007, 88, 687-713.	1.2	169
13	Chemical Hybridization of Glucagon and Thyroid Hormone Optimizes Therapeutic Impact for Metabolic Disease. <i>Cell</i> , 2016, 167, 843-857.e14.	13.5	153
14	FGF21 Analogs of Sustained Action Enabled by Orthogonal Biosynthesis Demonstrate Enhanced Antidiabetic Pharmacology in Rodents. <i>Diabetes</i> , 2012, 61, 505-512.	0.3	148
15	Restoration of leptin responsiveness in diet-induced obese mice using an optimized leptin analog in combination with exendin-4 or FGF21. <i>Journal of Peptide Science</i> , 2012, 18, 383-393.	0.8	133
16	Optimized GIP analogs promote body weight lowering in mice through GIPR agonism not antagonism. <i>Molecular Metabolism</i> , 2019, 20, 51-62.	3.0	130
17	Reappraisal of GIP Pharmacology for Metabolic Diseases. <i>Trends in Molecular Medicine</i> , 2016, 22, 359-376.	3.5	128
18	The glucose-dependent insulinotropic polypeptide (GIP) regulates body weight and food intake via CNS-GIPR signaling. <i>Cell Metabolism</i> , 2021, 33, 833-844.e5.	7.2	128

#	ARTICLE	IF	CITATIONS
19	GLP-1/glucagon receptor co-agonism for treatment of obesity. <i>Diabetologia</i> , 2017, 60, 1851-1861.	2.9	126
20	GLP-1/Glucagon Coagonism Restores Leptin Responsiveness in Obese Mice Chronically Maintained on an Obesogenic Diet. <i>Diabetes</i> , 2014, 63, 1422-1427.	0.3	116
21	Targeting the Incretin/Glucagon System With Triagonists to Treat Diabetes. <i>Endocrine Reviews</i> , 2018, 39, 719-738.	8.9	113
22	Optimization of coagonism at GLP-1 and glucagon receptors to safely maximize weight reduction in DIO rodents. <i>Biopolymers</i> , 2012, 98, 443-450.	1.2	110
23	FGF21 Revolutions: Recent Advances Illuminating FGF21 Biology and Medicinal Properties. <i>Trends in Endocrinology and Metabolism</i> , 2015, 26, 608-617.	3.1	98
24	Emerging hormonal-based combination pharmacotherapies for the treatment of metabolic diseases. <i>Nature Reviews Endocrinology</i> , 2019, 15, 90-104.	4.3	92
25	Monomeric GLP-1/GIP/glucagon triagonism corrects obesity, hepatosteatosis, and dyslipidemia in female mice. <i>Molecular Metabolism</i> , 2017, 6, 440-446.	3.0	87
26	Peptide lipidation stabilizes structure to enhance biological function. <i>Molecular Metabolism</i> , 2013, 2, 468-479.	3.0	83
27	A new quorum-sensing system ( <i>TprA</i> / <i>PhrA</i> ) for <i>Streptococcus pneumoniae</i> ... <i>D</i> 39 that regulates a lantibiotic biosynthesis gene cluster. <i>Molecular Microbiology</i> , 2015, 97, 229-243.	1.2	78
28	Peptide Conjugates with Small Molecules Designed to Enhance Efficacy and Safety. <i>Molecules</i> , 2019, 24, 1855.	1.7	68
29	Molecular Integration of Incretin and Glucocorticoid Action Reverses Immunometabolic Dysfunction and Obesity. <i>Cell Metabolism</i> , 2017, 26, 620-632.e6.	7.2	66
30	Pharmacodynamics, pharmacokinetics and safety of multiple ascending doses of the novel dual glucose-dependent insulinotropic polypeptide/glucagon-like peptide-1 agonist <i>RG</i> 7697 in people with type 2 diabetes mellitus. <i>Diabetes, Obesity and Metabolism</i> , 2017, 19, 1436-1445.	2.2	63
31	Viral insulin-like peptides activate human insulin and IGF-1 receptor signaling: A paradigm shift for host-microbe interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2461-2466.	3.3	63
32	GLP-1 and estrogen conjugate acts in the supramammillary nucleus to reduce food-reward and body weight. <i>Neuropharmacology</i> , 2016, 110, 396-406.	2.0	60
33	Fibroblast activation protein (FAP) as a novel metabolic target. <i>Molecular Metabolism</i> , 2016, 5, 1015-1024.	3.0	56
34	Optimization of the Native Glucagon Sequence for Medicinal Purposes. <i>Journal of Diabetes Science and Technology</i> , 2010, 4, 1322-1331.	1.3	53
35	Hepatic Glucagon Receptor Signaling Enhances Insulin-Stimulated Glucose Disposal in Rodents. <i>Diabetes</i> , 2018, 67, 2157-2166.	0.3	44
36	Next generation GLP-1/GIP/glucagon triple agonists normalize body weight in obese mice. <i>Molecular Metabolism</i> , 2022, 63, 101533.	3.0	43

#	ARTICLE	IF	CITATIONS
37	Recent Advances in Incretin-Based Pharmacotherapies for the Treatment of Obesity and Diabetes. <i>Frontiers in Endocrinology</i> , 2022, 13, 838410.	1.5	42
38	Chemical synthesis of peptides within the insulin superfamily. <i>Journal of Peptide Science</i> , 2016, 22, 260-270.	0.8	41
39	Metabolic syndrome and extensive adipose tissue inflammation in morbidly obese Göttingen minipigs. <i>Molecular Metabolism</i> , 2018, 16, 180-190.	3.0	41
40	Spatiotemporal GLP-1 and GIP receptor signaling and trafficking/recycling dynamics induced by selected receptor mono- and dual-agonists. <i>Molecular Metabolism</i> , 2021, 49, 101181.	3.0	39
41	Pharmacodynamics, pharmacokinetics, safety and tolerability of the novel dual glucose-dependent insulinotropic polypeptide/glucagon-like peptide-1 agonist <a href="#">RG7697</a> after single subcutaneous administration in healthy subjects. <i>Diabetes, Obesity and Metabolism</i> , 2017, 19, 1446-1453.	2.2	39
42	Zn-regulated GTPase metalloprotein activator 1 modulates vertebrate zinc homeostasis. <i>Cell</i> , 2022, 185, 2148-2163.e27.	13.5	39
43	Chemical Synthesis of Insulin Analogs through a Novel Precursor. <i>ACS Chemical Biology</i> , 2014, 9, 683-691.	1.6	38
44	Molecular elements in FGF19 and FGF21 defining KLB/FGFR activity and specificity. <i>Molecular Metabolism</i> , 2018, 13, 45-55.	3.0	36
45	Novel GLP-1R/GIPR co-agonist <a href="#">twincetin</a> 's neuroprotective in cell and rodent models of mild traumatic brain injury. <i>Experimental Neurology</i> , 2017, 288, 176-186.	2.0	34
46	A glucagon analog chemically stabilized for immediate treatment of life-threatening hypoglycemia. <i>Molecular Metabolism</i> , 2014, 3, 293-300.	3.0	33
47	$\text{Ca}^{2+}$ regulates Glucagon-Like Peptide 1 Receptor-mediated cyclic AMP generation at Rab5 endosomal compartment. <i>Molecular Metabolism</i> , 2017, 6, 1173-1185.	3.0	33
48	Long-Acting Neurotensin Synergizes With Liraglutide to Reverse Obesity Through a Melanocortin-Dependent Pathway. <i>Diabetes</i> , 2019, 68, 1329-1340.	0.3	33
49	Effect of targeted estrogen delivery using glucagon-like peptide-1 on insulin secretion, insulin sensitivity and glucose homeostasis. <i>Scientific Reports</i> , 2015, 5, 10211.	1.6	32
50	Selection and progression of unimolecular agonists at the GIP, GLP-1, and glucagon receptors as drug candidates. <i>Peptides</i> , 2020, 125, 170225.	1.2	30
51	Synthesis of Four-Disulfide Insulin Analogs via Sequential Disulfide Bond Formation. <i>Journal of Organic Chemistry</i> , 2017, 82, 3506-3512.	1.7	29
52	Neuroprotective Effects and Treatment Potential of Incretin Mimetics in a Murine Model of Mild Traumatic Brain Injury. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 356.	1.8	29
53	Single-Molecule Combinatorial Therapeutics for Treating Obesity and Diabetes. <i>Diabetes</i> , 2017, 66, 1766-1769.	0.3	25
54	CNS-targeting pharmacological interventions for the metabolic syndrome. <i>Journal of Clinical Investigation</i> , 2019, 129, 4058-4071.	3.9	24

#	ARTICLE	IF	CITATIONS
55	Insights into incretin-based therapies for treatment of diabetic dyslipidemia. <i>Advanced Drug Delivery Reviews</i> , 2020, 159, 34-53.	6.6	21
56	<i>In Vitro</i> and <i>In Vivo</i> Evaluation of Native Glucagon and Glucagon Analog (MAR-D28) during Aging: Lack of Cytotoxicity and Preservation of Hyperglycemic Effect. <i>Journal of Diabetes Science and Technology</i> , 2010, 4, 1311-1321.	1.3	20
57	Current and Emerging Treatment Options in Diabetes Care. <i>Handbook of Experimental Pharmacology</i> , 2015, 233, 437-459.	0.9	20
58	Biomimetic Synthesis of Insulin Enabled by Oxime Ligation and Traceless C-Peptide-Chemical Excision. <i>Organic Letters</i> , 2017, 19, 706-709.	2.4	20
59	A Brain-Melanocortin-Vagus Axis Mediates Adipose Tissue Expansion Independently of Energy Intake. <i>Cell Reports</i> , 2019, 27, 2399-2410.e6.	2.9	20
60	Optimization of peptide-based polyagonists for treatment of diabetes and obesity. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 2873-2881.	1.4	18
61	Deletion of the glucagon receptor gene before and after experimental diabetes reveals differential protection from hyperglycemia. <i>Molecular Metabolism</i> , 2018, 17, 28-38.	3.0	17
62	Synthetic Route to Human Relaxin-2 via Iodine-Free Sequential Disulfide Bond Formation. <i>Organic Letters</i> , 2016, 18, 5516-5519.	2.4	16
63	Neurotrophic and neuroprotective effects of a monomeric GLP-1/GIP/Gcg receptor triagonist in cellular and rodent models of mild traumatic brain injury. <i>Experimental Neurology</i> , 2020, 324, 113113.	2.0	16
64	Synthetic Advances in Insulin-like Peptides Enable Novel Bioactivity. <i>Accounts of Chemical Research</i> , 2017, 50, 1855-1865.	7.6	15
65	GLP-1/dexamethasone inhibits food reward without inducing mood and memory deficits in mice. <i>Neuropharmacology</i> , 2019, 151, 55-63.	2.0	15
66	Design, synthesis and crystallization of a novel glucagon analog as a therapeutic agent. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2007, 63, 599-601.	0.7	13
67	Chemical Synthesis of Human Insulin-Like Peptide. <i>Chemistry - A European Journal</i> , 2016, 22, 9777-9783.	1.7	13
68	Synthesis of relaxin and insulin-like peptide 5 enabled by novel tethering and traceless chemical excision. <i>Journal of Peptide Science</i> , 2017, 23, 455-465.	0.8	13
69	An incretin-based tri-agonist promotes superior insulin secretion from murine pancreatic islets via PLC activation. <i>Cellular Signalling</i> , 2018, 51, 13-22.	1.7	13
70	Structural Refinement of Glucagon for Therapeutic Use. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 3447-3460.	2.9	12
71	Plasma proteome profiles treatment efficacy of incretin dual agonism in diet-induced obese female and male mice. <i>Diabetes, Obesity and Metabolism</i> , 2021, 23, 195-207.	2.2	12
72	Identification of a second Klotho interaction site in the C terminus of FGF23. <i>Cell Reports</i> , 2021, 34, 108665.	2.9	12

#	ARTICLE	IF	CITATIONS
73	Optimization of Truncated Glucagon Peptides to Achieve Selective, High Potency, Full Antagonists. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 4697-4708.	2.9	12
74	Pyridyl-alanine as a Hydrophilic, Aromatic Element in Peptide Structural Optimization. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 8061-8067.	2.9	11
75	Stereochemical inversion as a route to improved biophysical properties of therapeutic peptides exemplified by glucagon. <i>Communications Chemistry</i> , 2019, 2, .	2.0	11
76	The islet-expressed Lhx1 transcription factor interacts with Islet-1 and contributes to glucose homeostasis. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2019, 316, E397-E409.	1.8	11
77	Addition of Sialic Acid to Insulin Confers Superior Physical Properties and Bioequivalence. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 6134-6143.	2.9	11
78	Myoglobin semisynthesis: removal of the amino-terminal valine of sperm whale myoglobin and its subsequent reincorporation. <i>Biochemistry</i> , 1979, 18, 3101-3109.	1.2	10
79	Synthesis of disulfide-rich heterodimeric peptides through an auxiliary N, N-crosslink. <i>Communications Chemistry</i> , 2018, 1, .	2.0	10
80	A Disulfide Scan of Insulin by [3 + 1] Methodology Exhibits Site-Specific Influence on Bioactivity. <i>ACS Chemical Biology</i> , 2019, 14, 1829-1835.	1.6	10
81	MS-275, a class 1 histone deacetylase inhibitor augments glucagon-like peptide-1 receptor agonism to improve glycemic control and reduce obesity in diet-induced obese mice. <i>ELife</i> , 2020, 9, .	2.8	10
82	Insulin-like peptide 5 fails to improve metabolism or body weight in obese mice. <i>Peptides</i> , 2019, 120, 170116.	1.2	9
83	A viral insulin-like peptide is a natural competitive antagonist of the human IGF-1 receptor. <i>Molecular Metabolism</i> , 2021, 53, 101316.	3.0	9
84	Native Design of Soluble, Aggregation-Resistant Bioactive Peptides: Chemical Evolution of Human Glucagon. <i>ACS Chemical Biology</i> , 2016, 11, 3412-3420.	1.6	8
85	“Let’s Stay Together”, GIP and GLP-1 dual agonism in the treatment of metabolic disease. <i>Molecular Metabolism</i> , 2018, 18, 1-2.	3.0	8
86	High-Yield Synthesis of Human Insulin-Like Peptide 5 Employing a Nonconventional Strategy. <i>Organic Letters</i> , 2018, 20, 3695-3699.	2.4	8
87	Smarter Modeling to Enable a Smarter Insulin. <i>Diabetes</i> , 2020, 69, 1608-1610.	0.3	8
88	Glucagon-receptor signaling regulates weight loss via central KLB receptor complexes. <i>JCI Insight</i> , 2021, 6, .	2.3	8
89	Investigation of the Feasibility of an Amide-based Prodrug Under Physiological Conditions. <i>International Journal of Peptide Research and Therapeutics</i> , 2008, 14, 255-262.	0.9	7
90	Emerging Polyagonists for Obesity and Type 2 Diabetes. <i>Obesity</i> , 2017, 25, 1647-1649.	1.5	7

#	ARTICLE	IF	CITATIONS
91	Controlled intramolecular antagonism as a regulator of insulin receptor maximal activity. <i>Peptides</i> , 2018, 100, 18-23.	1.2	6
92	Efficacy of glucagon-like peptide-1 and estrogen dual agonist in pancreatic islets protection and pre-clinical models of insulin-deficient diabetes. <i>Cell Reports Medicine</i> , 2022, 3, 100598.	3.3	6
93	Optimization of Peptide Inhibitors of Î²-Klotho as Antagonists of Fibroblast Growth Factors 19 and 21. <i>ACS Pharmacology and Translational Science</i> , 2020, 3, 978-986.	2.5	5
94	Synthesis and Characterization of the R27S Genetic Variant of Insulin-like Peptide 5. <i>ChemMedChem</i> , 2018, 13, 852-859.	1.6	4
95	Gut Peptide Agonism in the Treatment of Obesity and Diabetes. , 2019, 10, 99-124.		4
96	Icodec Advances the Prospect of Once-Weekly Insulin Injection. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 8939-8941.	2.9	4
97	Break on Through to the Other 1. <i>Cell Metabolism</i> , 2014, 20, 554-555.	7.2	3
98	Once Blind, Now We See GLP-1 Molecular Action. <i>Cell Metabolism</i> , 2017, 26, 289-291.	7.2	3
99	Recent advances in the chemical synthesis of insulin and related peptides. <i>Future Medicinal Chemistry</i> , 2020, 12, 649-654.	1.1	3
100	Peptide Model of the Mutant Proinsulin Syndrome. I. Design and Clinical Correlation. <i>Frontiers in Endocrinology</i> , 2022, 13, 821069.	1.5	3
101	Peptide Model of the Mutant Proinsulin Syndrome. II. Nascent Structure and Biological Implications. <i>Frontiers in Endocrinology</i> , 2022, 13, 821091.	1.5	2
102	Max Bergmann award lecture:Macromolecular medicinal chemistry as applied to metabolic diseases. <i>Journal of Peptide Science</i> , 2018, 24, e3056.	0.8	1
103	Advances in the treatment of metabolic diseases. <i>Molecular Metabolism</i> , 2021, 46, 101208.	3.0	1
104	A Facile Procedure for One-Pot Stable Conjugation of Two Proglucagon Cysteine-Containing Peptide Analogs. <i>Frontiers in Endocrinology</i> , 2021, 12, 693958.	1.5	1
105	Structurally Constrained Insulin Analogs by Directed Stepwise Crosslinking. <i>Protein and Peptide Letters</i> , 2019, 25, 1149-1154.	0.4	0
106	OR28-5 Bile Acid Sequestration Accelerates Glucagon Receptor-Mediated Body Weight Loss in Obese Mice. <i>Journal of the Endocrine Society</i> , 2019, 3, .	0.1	0