

Pierre De Meyts

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

6,211
citations

38
h-index

78
g-index

95
ext. papers

6,662
ext. citations

6.6
avg, IF

5.51
L-index

#	Paper	IF	Citations
92	Insulin-dependent regulation of insulin receptor concentrations: a direct demonstration in cell culture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1974 , 71, 84-8	11.5	819
91	Insulin interactions with its receptors: experimental evidence for negative cooperativity. <i>Biochemical and Biophysical Research Communications</i> , 1973 , 55, 154-61	3.4	636
90	Structural biology of insulin and IGF1 receptors: implications for drug design. <i>Nature Reviews Drug Discovery</i> , 2002 , 1, 769-83	64.1	433
89	Cooperativity in ligand binding: a new graphic analysis. <i>Biochemical and Biophysical Research Communications</i> , 1975 , 66, 1118-26	3.4	329
88	Fluctuations in the affinity and concentration of insulin receptors on circulating monocytes of obese patients: effects of starvation, refeeding, and dieting. <i>Journal of Clinical Investigation</i> , 1976 , 58, 1123-35	15.9	317
87	Insulin and its receptor: structure, function and evolution. <i>BioEssays</i> , 2004 , 26, 1351-62	4.1	236
86	Mapping of the residues responsible for the negative cooperativity of the receptor-binding region of insulin. <i>Nature</i> , 1978 , 273, 504-9	50.4	219
85	The insulin-like growth factor-I receptor. Structure, ligand-binding mechanism and signal transduction. <i>Hormone Research</i> , 1994 , 42, 152-69		192
84	Beta-adrenergic receptors: evidence for negative cooperativity. <i>Biochemical and Biophysical Research Communications</i> , 1975 , 64, 1160-8	3.4	178
83	The insulin receptor in vertebrates is functionally more conserved during evolution than insulin itself. <i>Endocrinology</i> , 1979 , 104, 1393-402	4.8	149
82	Cooperative properties of hormone receptors in cell membranes. <i>Journal of Supramolecular Structure</i> , 1976 , 4, 241-58		143
81	The insulin receptor: a prototype for dimeric, allosteric membrane receptors?. <i>Trends in Biochemical Sciences</i> , 2008 , 33, 376-84	10.3	126
80	Harmonic oscillator model of the insulin and IGF1 receptors allosteric binding and activation. <i>Molecular Systems Biology</i> , 2009 , 5, 243	12.2	114
79	Role of histone and transcription factor acetylation in diabetes pathogenesis. <i>Diabetes/Metabolism Research and Reviews</i> , 2005 , 21, 416-33	7.5	114
78	Identification of a ligand-binding region of the human insulin receptor encoded by the second exon of the gene. <i>Molecular Endocrinology</i> , 1990 , 4, 409-16		87
77	Insulin-induced dissociation of its receptor into subunits: possible molecular concomitant of negative cooperativity. <i>Biochemical and Biophysical Research Communications</i> , 1976 , 73, 1068-74	3.4	87
76	Gene expression in skeletal muscle biopsies from people with type 2 diabetes and relatives: differential regulation of insulin signaling pathways. <i>PLoS ONE</i> , 2009 , 4, e6575	3.7	73

75	Insulin/receptor binding: the last piece of the puzzle? What recent progress on the structure of the insulin/receptor complex tells us (or not) about negative cooperativity and activation. <i>BioEssays</i> , 2015 , 37, 389-97	4.1	70
74	How insulin binds: the B-chain alpha-helix contacts the L1 beta-helix of the insulin receptor. <i>Journal of Molecular Biology</i> , 2004 , 341, 529-50	6.5	69
73	Mechanism of insulin and IGF-I receptor activation and signal transduction specificity. Receptor dimer cross-linking, bell-shaped curves, and sustained versus transient signaling. <i>Annals of the New York Academy of Sciences</i> , 1995 , 766, 388-401	6.5	62
72	Receptors for insulin, NSILA-s, and growth hormone: applications to disease states in man. <i>Endocrine Reviews</i> , 1975 , 31, 95-139		61
71	How ligand binds to the type 1 insulin-like growth factor receptor. <i>Nature Communications</i> , 2018 , 9, 821	17.4	56
70	Role of the time factor in signaling specificity: application to mitogenic and metabolic signaling by the insulin and insulin-like growth factor-I receptor tyrosine kinases. <i>Metabolism: Clinical and Experimental</i> , 1995 , 44, 2-11	12.7	55
69	Activation of the insulin receptor by insulin and a synthetic peptide leads to divergent metabolic and mitogenic signaling and responses. <i>Journal of Biological Chemistry</i> , 2007 , 282, 35179-86	5.4	52
68	Molecular mechanisms of differential intracellular signaling from the insulin receptor. <i>Vitamins and Hormones</i> , 2009 , 80, 51-75	2.5	49
67	Carbohydrate metabolism in women who used oral contraceptives containing levonorgestrel or desogestrel: a 6-month prospective study. <i>Fertility and Sterility</i> , 1986 , 45, 635-42	4.8	49
66	Role of kinase C in the insulin-like effects of human growth hormone in rat adipocytes. <i>Biochemical and Biophysical Research Communications</i> , 1987 , 147, 1232-40	3.4	49
65	Alanine scanning of a putative receptor binding surface of insulin-like growth factor-I. <i>Journal of Biological Chemistry</i> , 2008 , 283, 20821-9	5.4	48
64	Structural basis for the lower affinity of the insulin-like growth factors for the insulin receptor. <i>Journal of Biological Chemistry</i> , 2008 , 283, 2604-13	5.4	48
63	Genetic engineering in mice: impact on insulin signalling and action. <i>Biochemical Journal</i> , 1998 , 335 (Pt 2), 193-204	3.8	48
62	Biosensor measurement of the binding of insulin-like growth factors I and II and their analogues to the insulin-like growth factor-binding protein-3. <i>Journal of Biological Chemistry</i> , 1996 , 271, 13948-52	5.4	46
61	Biological effects of human growth hormone in rat adipocyte precursor cells and newly differentiated adipocytes in primary culture. <i>Metabolism: Clinical and Experimental</i> , 1996 , 45, 34-42	12.7	45
60	Structural and biological properties of the Drosophila insulin-like peptide 5 show evolutionary conservation. <i>Journal of Biological Chemistry</i> , 2011 , 286, 661-73	5.4	43
59	Logical analysis of timing-dependent receptor signalling specificity: application to the insulin receptor metabolic and mitogenic signalling pathways. <i>Biochemical Journal</i> , 1997 , 326 (Pt 2), 463-9	3.8	40
58	Impaired negative cooperativity of the semisynthetic analogues human [LeuB24]- and [LeuB25]-insulins. <i>Biochemical and Biophysical Research Communications</i> , 1981 , 100, 1229-36	3.4	40

57	Insulin-Like Peptides DILP2 and DILP5 Differentially Stimulate Cell Signaling and Glycogen Phosphorylase to Regulate Longevity. <i>Frontiers in Endocrinology</i> , 2018 , 9, 245	5-7	39
56	Cooperative binding of insulin-like Peptide 3 to a dimeric relaxin family peptide receptor 2. <i>Endocrinology</i> , 2008 , 149, 1113-20	4-8	39
55	Mitogenic and antiadipogenic properties of human growth hormone in differentiating human adipocyte precursor cells in primary culture. <i>Pediatric Research</i> , 1996 , 40, 450-6	3-2	39
54	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	11-5	37
53	The A-chain of insulin contacts the insert domain of the insulin receptor. Photo-cross-linking and mutagenesis of a diabetes-related crevice. <i>Journal of Biological Chemistry</i> , 2007 , 282, 35337-49	5-4	37
52	p38 MAPK activation upregulates proinflammatory pathways in skeletal muscle cells from insulin-resistant type 2 diabetic patients. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2015 , 308, E63-70	6	36
51	Separation of fast from slow anabolism by site-specific PEGylation of insulin-like growth factor I (IGF-I). <i>Journal of Biological Chemistry</i> , 2011 , 286, 19501-10	5-4	36
50	Agonism and antagonism at the insulin receptor. <i>PLoS ONE</i> , 2012 , 7, e51972	3-7	35
49	Negative cooperativity in H2 relaxin binding to a dimeric relaxin family peptide receptor 1. <i>Molecular and Cellular Endocrinology</i> , 2008 , 296, 10-7	4-4	34
48	Insulin and insulin-like growth factor-I receptor mediated differentiation of 3T3-F442A cells into adipocytes: effect of PI 3-kinase inhibition. <i>Biochemical and Biophysical Research Communications</i> , 1998 , 246, 426-30	3-4	33
47	The receptor binding properties of the 20K variant of human growth hormone explain its discrepant insulin-like and growth promoting activities. <i>Biochemical and Biophysical Research Communications</i> , 1986 , 134, 159-65	3-4	32
46	A novel binding site for the human insulin-like growth factor-II (IGF-II)/mannose 6-phosphate receptor on IGF-II. <i>Journal of Biological Chemistry</i> , 2007 , 282, 18886-94	5-4	31
45	Glycosylation of cell surface receptors: tunicamycin treatment decreases insulin and growth hormone binding to different levels in cultured lymphocytes. <i>Biochemical and Biophysical Research Communications</i> , 1981 , 101, 22-9	3-4	31
44	Crystal structure of a "nonfoldable" insulin: impaired folding efficiency despite native activity. <i>Journal of Biological Chemistry</i> , 2009 , 284, 35259-72	5-4	30
43	Receptor oligomerization in family B1 of G-protein-coupled receptors: focus on BRET investigations and the link between GPCR oligomerization and binding cooperativity. <i>Frontiers in Endocrinology</i> , 2012 , 3, 62	5-7	30
42	Reversal of insulin-induced negative cooperativity by monoclonal antibodies that stabilize the slowly dissociating ("Ksuper") state of the insulin receptor. <i>Biochemical and Biophysical Research Communications</i> , 1988 , 150, 694-701	3-4	28
41	Structural basis of allosteric ligand-receptor interactions in the insulin/relaxin peptide family: implications for other receptor tyrosine kinases and G-protein-coupled receptors. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1160, 45-53	6-5	27
40	Pancreatic β cell hyperplasia and hyperglucagonemia due to a glucagon receptor splice mutation. <i>Endocrinology, Diabetes and Metabolism Case Reports</i> , 2016 , 2016,	1-4	27

39	Structural Biology of Insulin and IGF-1 Receptors. <i>Novartis Foundation Symposium</i> , 2008 , 160-176		25
38	Engineering the C-region of human insulin-like growth factor-1: implications for receptor binding. <i>Protein Engineering, Design and Selection</i> , 1996 , 9, 1011-9	1.9	25
37	IGF-I, IGF-II, and Insulin Stimulate Different Gene Expression Responses through Binding to the IGF-I Receptor. <i>Frontiers in Endocrinology</i> , 2013 , 4, 98	5.7	24
36	Insight into the molecular basis for the kinetic differences between the two insulin receptor isoforms. <i>Biochemical Journal</i> , 2011 , 440, 397-403	3.8	24
35	Activation of the insulin receptor (IR) by insulin and a synthetic peptide has different effects on gene expression in IR-transfected L6 myoblasts. <i>Biochemical Journal</i> , 2008 , 412, 435-45	3.8	23
34	Acridine orange, an inhibitor of protein kinase C, abolishes insulin and growth hormone stimulation of lipogenesis in rat adipocytes. <i>FEBS Letters</i> , 1989 , 244, 465-8	3.8	23
33	Modelling of the disulphide-swapped isomer of human insulin-like growth factor-1: implications for receptor binding. <i>Protein Engineering, Design and Selection</i> , 1999 , 12, 297-303	1.9	22
32	Inhibition by insulin of glucocorticoid-induced gene transcription: involvement of the ligand-binding domain of the glucocorticoid receptor and independence from the phosphatidylinositol 3-kinase and mitogen-activated protein kinase pathways. <i>Molecular Endocrinology</i> , 1996 , 12, 1343-54		20
31	Insulin-like growth factor I (IGF-I) is a more potent regulator of gene expression than insulin in primary human myoblasts and myotubes. <i>Growth Hormone and IGF Research</i> , 2009 , 19, 168-78	2	18
30	Mitogenic potential of insulin on lymphoma cells lacking IGF-1 receptor. <i>Annals of the New York Academy of Sciences</i> , 1995 , 766, 409-15	6.5	17
29	The diabetogenes concept of NIDDM. <i>Advances in Experimental Medicine and Biology</i> , 1993 , 334, 89-100	3.6	17
28	Regulation of receptor by homologous hormone enhances sensitivity and broadens scope of radioreceptor assay for human growth hormone. <i>Journal of Clinical Endocrinology and Metabolism</i> , 1979 , 49, 262-8	5.6	15
27	Down-regulation of cyclin G2 by insulin, IGF-I (insulin-like growth factor 1) and X10 (AspB10 insulin): role in mitogenesis. <i>Biochemical Journal</i> , 2014 , 457, 69-77	3.8	14
26	Insulin and insulin-like growth factors: the paradox of signaling specificity. <i>Growth Hormone and IGF Research</i> , 2002 , 12, 81-3	2	14
25	Structural basis of the aberrant receptor binding properties of hagfish and lamprey insulins. <i>Biochemistry</i> , 2009 , 48, 11283-95	3.2	13
24	Dimerization and negative cooperativity in the relaxin family peptide receptors. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1160, 54-9	6.5	12
23	Preparation and expression of biologically active prolactin and growth hormone receptors and suppressor of cytokine signaling proteins 1, 2, 3, and 6 tagged with cyan and yellow fluorescent proteins. <i>Protein Expression and Purification</i> , 2002 , 25, 456-64	2	12
22	Timing-dependence of insulin-receptor mitogenic versus metabolic signalling: a plausible model based on coincidence of hormone and effector binding. <i>Biochemical Journal</i> , 1999 , 339, 675	3.8	12

21	Total Solid-Phase Synthesis of Biologically Active Drosophila Insulin-Like Peptide 2 (DILP2). <i>Australian Journal of Chemistry</i> , 2017 , 70, 208-212	1.2	10
20	Timing-dependent modulation of insulin mitogenic versus metabolic signalling. <i>Novartis Foundation Symposium</i> , 2000 , 227, 46-57; discussion 57-60		10
19	The insulin receptor isoform A: a mitogenic proinsulin receptor?. <i>Endocrinology</i> , 2012 , 153, 2054-6	4.8	7
18	P-5: Insulin dose-response curves and IGF-I cross-reactivity in cells expressing only one receptor type: evidence for different requirements for monovalent versus bivalent insulin binding of metabolic and mitogenic signaling. <i>Experimental and Clinical Endocrinology and Diabetes</i> , 1996 , 104, 68-70	2.3	7
17	DOK4/IRS-5 expression is altered in clear cell renal cell carcinoma. <i>International Journal of Cancer</i> , 2007 , 121, 992-8	7.5	7
16	Measuring growth hormone activity through receptor and binding protein assays. <i>Hormone Research</i> , 1991 , 36 Suppl 1, 21-6		7
15	Structure of growth hormone and its receptor: an unexpected stoichiometry. <i>Trends in Biochemical Sciences</i> , 1992 , 17, 169-70	10.3	7
14	Binding kinetics of mutated insulin receptors in transfected cells grown in suspension culture: application to the Tyr----Phe 960 insulin receptor mutant. <i>Biochemical and Biophysical Research Communications</i> , 1989 , 164, 191-8	3.4	7
13	Structures of insect Imp-L2 suggest an alternative strategy for regulating the bioavailability of insulin-like hormones. <i>Nature Communications</i> , 2018 , 9, 3860	17.4	7
12	O-42: Mitogenic signalling by insulin in a T-cell lymphoma, the LB cell line, devoid of IGF-I receptors: evidence for the lack of involvement of the RAS-MAP kinase pathway and for a possibly novel IRS-like molecule. <i>Experimental and Clinical Endocrinology and Diabetes</i> , 1996 , 104, 52-53	2.3	6
11	IRS-4 mediated mitogenic signalling by insulin and growth hormone in LB cells, a murine T-cell lymphoma devoid of IGF-I receptors. <i>Cellular Signalling</i> , 2003 , 15, 385-94	4.9	6
10	A rapid method for the preparation of 125I-labelled human growth hormone for receptor studies, using reverse-phase high performance liquid chromatography. <i>Biochemical and Biophysical Research Communications</i> , 1986 , 134, 671-7	3.4	5
9	Insulin: A 100-Year-Old Discovery With a Fascinating History. <i>Endocrine Reviews</i> , 2021 , 42, 503-527	27.2	3
8	Insulin and IGF-I Receptor Structure and Binding Mechanism 2007 , 1-32		3
7	Early Recombinant Protein Therapeutics. <i>Methods and Principles in Medicinal Chemistry</i> , 2017 , 1-23	0.4	2
6	Pancreatic Hormones 2020 , 383-423		1
5	Structural basis for the poisonous activity of a predator's venom insulin. <i>Nature Structural and Molecular Biology</i> , 2016 , 23, 872-874	17.6	1
4	Receptor Tyrosine Kinase Signal Transduction and the Molecular Basis of Signalling Specificity 2015 , 51-76		0

- 3 P-13: The importance of the exon six encoded domain of the IR and IGF-I-R in ligand binding. *Experimental and Clinical Endocrinology and Diabetes*, **1996**, 104, 78-78 2.3
- 2 Cooperative Regulation of Hormone Binding Affinity for Cell Surface Receptors **1976**, 215-226
- 1 THE STRUCTURAL BASIS OF INSULIN-RECEPTOR BINDING AND COOPERATIVE INTERACTIONS **1978**, 319-323