Pierre De Meyts

List of Publications by Year
in descending order

94 papers	7,524 citations	71061 41 h-index	53190 85 g-index
95 all docs	95 docs citations	95 times ranked	4257 citing authors

#	Article	IF	Citations
1	Insulin-Dependent Regulation of Insulin Receptor Concentrations: A Direct Demonstration in Cell Culture. Proceedings of the National Academy of Sciences of the United States of America, 1974, 71, 84-88.	3.3	999
2	Insulin interactions with its receptors: Experimental evidence for negative cooperativity. Biochemical and Biophysical Research Communications, 1973, 55, 154-161.	1.0	726
3	Structural biology of insulin and IGF1 receptors: implications for drug design. Nature Reviews Drug Discovery, 2002, 1, 769-783.	21.5	506
4	Cooperativity in ligand binding: A new graphic analysis. Biochemical and Biophysical Research Communications, 1975, 66, 1118-1126.	1.0	410
5	Fluctuations in the affinity and concentration of insulin receptors on circulating monocytes of obese patients: effects of starvation, refeeding, and dieting.. Journal of Clinical Investigation, 1976, 58, 1123-1135.	3.9	401
6	Insulin and its receptor: structure, function and evolution. BioEssays, 2004, 26, 1351-1362.	1.2	274
7	Mapping of the residues responsible for the negative cooperativity of the receptor-binding region of insulin. Nature, 1978, 273, 504-509.	13.7	251
8	The Insulin-Like Growth Factor-I Receptor. Hormone Research, 1994, 42, 152-169.	1.8	230
9	Î²-Adrenergic receptors: Evidence for negative cooperativity. Biochemical and Biophysical Research Communications, 1975, 64, 1160-1168.	1.0	191
10	Cooperative properties of hormone receptors in cell membranes. Journal of Supramolecular Structure, 1976, 4, 241-258.	2.3	167
11	The Insulin Receptor in Vertebrates Is Functionally More Conserved during Evolution than Insulin Itself. Endocrinology, 1979, 104, 1393-1402.	1.4	167
12	The insulin receptor: a prototype for dimeric, allosteric membrane receptors?. Trends in Biochemical Sciences, 2008, 33, 376-384.	3.7	149
13	Harmonic oscillator model of the insulin and IGF1 receptorsâ€™ allosteric binding and activation. Molecular Systems Biology, 2009, 5, 243.	3.2	144
14	Role of histone and transcription factor acetylation in diabetes pathogenesis. Diabetes/Metabolism Research and Reviews, 2005, 21, 416-433.	1.7	129
15	Insulin/receptor binding: The last piece of the puzzle?. BioEssays, 2015, 37, 389-397.	1.2	110
16	How ligand binds to the type 1 insulin-like growth factor receptor. Nature Communications, 2018, 9, 821.	5.8	99
17	Insulin-induced dissociation of its receptor into subunits: Possible molecular concomitant of negative cooperativity. Biochemical and Biophysical Research Communications, 1976, 73, 1068-1074.	1.0	98
18	Gene Expression in Skeletal Muscle Biopsies from People with Type 2 Diabetes and Relatives: Differential Regulation of Insulin Signaling Pathways. PLoS ONE, 2009, 4, e6575.	1.1	92

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19	Identification of a Ligand-Binding Region of the Human Insulin Receptor Encoded by the Second Exon of the Gene. Molecular Endocrinology, 1990, 4, 409-416.	3.7	91
20	Receptors for Insulin, NSILA-s, and Growth Hormone: Applications to Disease States in Man. , 1975, 31, 95-139.		90
21	How Insulin Binds: the B-Chain Î±-Helix Contacts the L1 Î²-Helix of the Insulin Receptor. Journal of Molecular Biology, 2004, 341, 529-550.	2.0	74
22	Drosophila Insulin-Like Peptides DILP2 and DILP5 Differentially Stimulate Cell Signaling and Glycogen Phosphorylase to Regulate Longevity. Frontiers in Endocrinology, 2018, 9, 245.	1.5	72
23	Activation of the Insulin Receptor by Insulin and a Synthetic Peptide Leads to Divergent Metabolic and Mitogenic Signaling and Responses. Journal of Biological Chemistry, 2007, 282, 35179-35186.	1.6	69
24	Mechanism of Insulin and IGF-I.. Annals of the New York Academy of Sciences, 1995, 766, 388-401.	1.8	66
25	Viral insulin-like peptides activate human insulin and IGF-1 receptor signaling: A paradigm shift for hostâ€"microbe interactions. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2461-2466.	3.3	63
26	Structural and Biological Properties of the Drosophila Insulin-like Peptide 5 Show Evolutionary Conservation. Journal of Biological Chemistry, 2011, 286, 661-673.	1.6	61
27	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. Metabolism: Clinical and Experimental, 1995, 44, 2-11.	1.5	59
28	Alanine Scanning of a Putative Receptor Binding Surface of Insulin-like Growth Factor-I. Journal of Biological Chemistry, 2008, 283, 20821-20829.	1.6	59
29	Chapter 3 Molecular Mechanisms of Differential Intracellular Signaling From the Insulin Receptor. Vitamins and Hormones, 2009, 80, 51-75.	0.7	59
30	Mitogenic and Antiadipogenic Properties of Human Growth Hormone in Differentiating Human Adipocyte Precursor Cells in Primary Culture1. Pediatric Research, 1996, 40, 450-456.	1.1	59
31	Logical analysis of timing-dependent receptor signalling specificity: application to the insulin receptor metabolic and mitogenic signalling pathways. Biochemical Journal, 1997, 326, 463-469.	1.7	58
32	Structural Basis for the Lower Affinity of the Insulin-like Growth Factors for the Insulin Receptor. Journal of Biological Chemistry, 2008, 283, 2604-2613.	1.6	58
33	Carbohydrate metabolism in women who used oral contraceptives containing levonorgestrel or desogestrel: a 6-month prospective study. Fertility and Sterility, 1986, 45, 635-642.	0.5	56
34	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. Journal of Biological Chemistry, 1996, 271, 13948-13952.	1.6	56
35	Role of kinase C in the insulin-like effects of human growth hormone in rat adipocytes. Biochemical and Biophysical Research Communications, 1987, 147, 1232-1240.	1.0	53
36	Biological effects of human growth hormone in rat adipocyte precursor cells and newly differentiated adipocytes in primary culture. Metabolism: Clinical and Experimental, 1996, 45, 34-42.	1.5	53

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37	Genetic engineering in mice: impact on insulin signalling and action. Biochemical Journal, 1998, 335, 193-204.	1.7	53
38	Cooperative Binding of Insulin-Like Peptide 3 to a Dimeric Relaxin Family Peptide Receptor 2. Endocrinology, 2008, 149, 1113-1120.	1.4	48
39	p38 MAPK activation upregulates proinflammatory pathways in skeletal muscle cells from insulin-resistant type 2 diabetic patients. American Journal of Physiology - Endocrinology and Metabolism, 2015, 308, E63-E70.	1.8	48
40	Agonism and Antagonism at the Insulin Receptor. PLoS ONE, 2012, 7, e51972.	1.1	45
41	Negative cooperativity in H2 relaxin binding to a dimeric relaxin family peptide receptor 1. Molecular and Cellular Endocrinology, 2008, 296, 10-17.	1.6	44
42	The A-chain of Insulin Contacts the Insert Domain of the Insulin Receptor. Journal of Biological Chemistry, 2007, 282, 35337-35349.	1.6	43
43	Impaired negative cooperativity of the semisynthetic analogues human [LeuB24]- and [LeuB25]-insulins. Biochemical and Biophysical Research Communications, 1981, 100, 1229-1236.	1.0	41
44	Separation of Fast from Slow Anabolism by Site-specific PEGylation of Insulin-like Growth Factor I (IGF-I). Journal of Biological Chemistry, 2011, 286, 19501-19510.	1.6	40
45	Glycosylation of cell surface receptors: Tunicamycin treatment decreases insulin and growth hormone binding to different levels in cultured lymphocytes. Biochemical and Biophysical Research Communications, 1981, 101, 22-29.	1.0	39
46	The receptor binding properties of the 20K variant of human growth hormone explain its discrepant insulin-like and growth promoting activities. Biochemical and Biophysical Research Communications, 1986, 134, 159-165.	1.0	39
47	IGF-I, IGF-II, and Insulin Stimulate Different Gene Expression Responses through Binding to the IGF-I Receptor. Frontiers in Endocrinology, 2013, 4, 98.	1.5	39
48	Pancreatic Î±-cell hyperplasia and hyperglucagonemia due to a glucagon receptor splice mutation. Endocrinology, Diabetes and Metabolism Case Reports, 2016, 2016, .	0.2	36
49	Insulin and Insulin-like Growth Factor-I Receptor Mediated Differentiation of 3T3-F442A Cells into Adipocytes: Effect of PI 3-Kinase Inhibition. Biochemical and Biophysical Research Communications, 1998, 246, 426-430.	1.0	35
50	A Novel Binding Site for the Human Insulin-like Growth Factor-II (IGF-II)/Mannose 6-Phosphate Receptor on IGF-II. Journal of Biological Chemistry, 2007, 282, 18886-18894.	1.6	35
51	Crystal Structure of a â€œNonfoldableâ€•Insulin. Journal of Biological Chemistry, 2009, 284, 35259-35272.	1.6	34
52	Structural Biology of Insulin and IGF-1 Receptors. Novartis Foundation Symposium, 2008, , 160-176.	1.2	33
53	Activation of the insulin receptor (IR) by insulin and a synthetic peptide has different effects on gene expression in IR-transfected L6 myoblasts. Biochemical Journal, 2008, 412, 435-445.	1.7	33
54	Engineering the C-region of human insulin-like growth factor-1: implications for receptor binding. Protein Engineering, Design and Selection, 1996, 9, 1011-1019.	1.0	31

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55	Receptor Oligomerization in Family B1 of G-Protein-Coupled Receptors: Focus on BRET Investigations and the Link between GPCR Oligomerization and Binding Cooperativity. Frontiers in Endocrinology, 2012, 3, 62.	1.5	31
56	Structural Basis of Allosteric Ligandâ€"Receptor Interactions in the Insulin/Relaxin Peptide Family. Annals of the New York Academy of Sciences, 2009, 1160, 45-53.	1.8	30
57	Insight into the molecular basis for the kinetic differences between the two insulin receptor isoforms. Biochemical Journal, 2011, 440, 397-403.	1.7	29
58	Reversal of insulin-induced negative cooperativity by monoclonal antibodies that stabilize the slowly dissociating (â€œKsuperâ€) state of the insulin receptor. Biochemical and Biophysical Research Communications, 1988, 150, 694-701.	1.0	28
59	Modelling of the disulphide-swapped isomer of human insulin-like growth factor-1: implications for receptor binding. Protein Engineering, Design and Selection, 1999, 12, 297-303.	1.0	27
60	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. Molecular Endocrinology, 1998, 12, 1343-1354.	3.7	25
61	Acridine orange, an inhibitor of protein kinase C, abolishes insulin and growth hormone stimulation of lipogenesis in rat adipocytes. FEBS Letters, 1989, 244, 465-468.	1.3	24
62	Insulin-like growth factor I (IGF-I) is a more potent regulator of gene expression than insulin in primary human myoblasts and myotubes. Growth Hormone and IGF Research, 2009, 19, 168-178.	0.5	22
63	Structures of insect Imp-L2 suggest an alternative strategy for regulating the bioavailability of insulin-like hormones. Nature Communications, 2018, 9, 3860.	5.8	22
64	Regulation of Receptor by Homologous Hormone Enhances Sensitivity and Broadens Scope of Radioreceptor Assay for Human Growth Hormone. Journal of Clinical Endocrinology and Metabolism, 1979, 49, 262-268.	1.8	20
65	Total Solid-Phase Synthesis of Biologically Active Drosophila Insulin-Like Peptide 2 (DILP2). Australian Journal of Chemistry, 2017, 70, 208.	0.5	18
66	The Diabetogenes Concept of NIDDM. Advances in Experimental Medicine and Biology, 1993, 334, 89-100.	0.8	18
67	Mitogenic Potential of Insulin on Lymphoma Cells Lacking IGF-1 Receptor. Annals of the New York Academy of Sciences, 1995, 766, 409-414.	1.8	17
68	Down-regulation of cyclin G2 by insulin, IGF-I (insulin-like growth factor 1) and X10 (AspB10 insulin): role in mitogenesis. Biochemical Journal, 2014, 457, 69-77.	1.7	16
69	Insulin: A 100-Year-Old Discovery With a Fascinating History. Endocrine Reviews, 2021, 42, 503-527.	8.9	16
70	Dimerization and Negative Cooperativity in the Relaxin Family Peptide Receptors. Annals of the New York Academy of Sciences, 2009, 1160, 54-59.	1.8	15
71	Timing-dependence of insulin-receptor mitogenic versus metabolic signalling: a plausible model based on coincidence of hormone and effector binding. Biochemical Journal, 1999, 339, 675.	1.7	14
72	Insulin and insulin-like growth factors: the paradox of signaling specificity. Growth Hormone and IGF Research, 2002, 12, 81-83.	0.5	14

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73	Structural Basis of the Aberrant Receptor Binding Properties of Hagfish and Lamprey Insulins. Biochemistry, 2009, 48, 11283-11295.	1.2	14
74	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. Protein Expression and Purification, 2002, 25, 456-464.	0.6	13
75	Measuring Growth Hormone Activity through Receptor and Binding Protein Assays. Hormone Research, 1991, 36, 21-26.	1.8	10
76	Timing-Dependent Modulation of Insulin Mitogenic Versus Metabolic Signalling. Novartis Foundation Symposium, 2008, 227, 46-60.	1.2	10
77	IRS-4 mediated mitogenic signalling by insulin and growth hormone in LB cells, a murine T-cell lymphoma devoid of IGF-I receptors. Cellular Signalling, 2003, 15, 385-394.	1.7	9
78	Binding kinetics of mutated insulin receptors in transfected cells grown in suspension culture: Application to the Tyr â†’ Phe 960 insulin receptor mutant. Biochemical and Biophysical Research Communications, 1989, 164, 191-198.	1.0	8
79	Structure of growth hormone and its receptor: an unexpected stoichiometry. Trends in Biochemical Sciences, 1992, 17, 169-170.	3.7	8
80	The Insulin Receptor Isoform A: A Mitogenic Proinsulin Receptor?. Endocrinology, 2012, 153, 2054-2056.	1.4	8
81	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. Experimental and Clinical Endocrinology and Diabetes, 1996, 104, 68-70.	0.6	7
82	DOK4/IRS-5 expression is altered in clear cell renal cell carcinoma. International Journal of Cancer, 2007, 121, 992-998.	2.3	7
83	Insulin and IGF-I Receptor Structure and Binding Mechanism. , 2007, , 1-32.		7
84	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. Experimental and Clinical Endocrinology and Diabetes, 1996, 104, 52-53.	0.6	6
85	A rapid method for the preparation of 1251-labelled human growth hormone for receptor studies, using reverse-phase high performance liquid chromatography. Biochemical and Biophysical Research Communications, 1986, 134, 671-677.	1.0	5
86	Receptor Tyrosine Kinase Signal Transduction and the Molecular Basis of Signalling Specificity. , 2015, , 51-76.		2
87	Structural basis for the poisonous activity of a predator's venom insulin. Nature Structural and Molecular Biology, 2016, 23, 872-874.	3.6	2
88	Pancreatic Hormones. , 2020, , 383-423.		2
89	P-8: Logical analysis of the effect of timing of receptor binding on signalling specificity. Experimental and Clinical Endocrinology and Diabetes, 1996, 104, 72-73.	0.6	1
90	News. IET Systems Biology, 2005, 152, 53.	2.0	1

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91	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.	0.6	0
92	P-7: Kinetic and equilibrium properties of a cross-linking model of insulin receptor binding. Experimental and Clinical Endocrinology and Diabetes, 1996, 104, 71-72.	0.6	0
93	Cooperative Regulation of Hormone Binding Affinity for Cell Surface Receptors. , 1976, , 215-226.		0
94	THE STRUCTURAL BASIS OF INSULIN-RECEPTOR BINDING AND COOPERATIVE INTERACTIONS. , 1978, , 319-323.		0