Jiri Jiracek

List of Publications by Year in Descending Order

92 papers	2,258 citations	25 h-index	44 g-index
105 ext. papers	2,514 ext. citations	4.7 avg, IF	4.57 L-index

#	Paper	IF	Citations
92	Characterization of Viral Insulin-Like Peptides Reveals Unique White Adipose Tissue Specific Characteristics. *Journal of the Endocrine Society*, **2021**, 5, A437-A438	0.4	78
91	A radioligand receptor binding assay for measuring of insulin secreted by MIN6 cells after stimulation with glucose, arginine, ornithine, dopamine, and serotonin. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 4531-4543	4.4	2
90	Characterization of viral insulins reveals white adipose tissue-specific effects in mice. *Molecular Metabolism*, **2021**, 44, 101121	8.8	5
89	Multipodal insulin mimetics built on adamantane or proline scaffolds. *Bioorganic Chemistry*, **2021**, 107, 104548	5.1	0
88	Insulin Analogues with Altered Insulin Receptor Isoform Binding Specificities and Enhanced Aggregation Stabilities. *Journal of Medicinal Chemistry*, **2021**, 64, 14848-14859	8.3	0
87	Radiolabeled hormones in insulin research, a minireview. *Journal of Labelled Compounds and Radiopharmaceuticals*, **2020**, 63, 576-581	1.9	
86	Acid-Stable Ester Linkers for the Solid-Phase Synthesis of Immobilized Peptides. *ChemPlusChem*, **2020**, 85, 1297-1306	2.8	
85	The efficiency of insulin production and its content in insulin-expressing model Ecells correlate with their Zn levels. *Open Biology*, **2020**, 10, 200137	7	3
84	A radioligand binding assay for the insulin-like growth factor 2 receptor. *PLoS ONE*, **2020**, 15, e0238393	3.7	2
83	A radioligand binding assay for the insulin-like growth factor 2 receptor **2020**, 15, e0238393		
82	A radioligand binding assay for the insulin-like growth factor 2 receptor **2020**, 15, e0238393		
81	A radioligand binding assay for the insulin-like growth factor 2 receptor **2020**, 15, e0238393		
80	A radioligand binding assay for the insulin-like growth factor 2 receptor **2020**, 15, e0238393		
79	Mutations at hypothetical binding site 2 in insulin and insulin-like growth factors 1 and 2 result in receptor- and hormone-specific responses. *Journal of Biological Chemistry*, **2019**, 294, 17371-17382	5.4	10
78	From venom peptides to a potential diabetes treatment. *ELife*, **2019**, 8,	8.9	2
77	Cross-Linking/Mass Spectrometry Uncovers Details of Insulin-Like Growth Factor Interaction With Insect Insulin Binding Protein Imp-L2. *Frontiers in Endocrinology*, **2019**, 10, 695	5.7	2
76	Pressure assisted partial filling affinity capillary electrophoresis employed for determination of binding constants of human insulin hexamer complexes with serotonin, dopamine, arginine, and phenol. *Analytica Chimica Acta*, **2019**, 1052, 170-178	6.6	27

75	Converting Insulin-like Growth Factors 1 and 2 into High-Affinity Ligands for Insulin Receptor Isoform A by the Introduction of an Evolutionarily Divergent Mutation. *Biochemistry*, **2018**, 57, 2373-2382	3.2	10
74	A versatile insulin analog with high potency for both insulin and insulin-like growth factor 1 receptors: Structural implications for receptor binding. *Journal of Biological Chemistry*, **2018**, 293, 16818-16829	5.4	2
73	Can Arginine Inhibit Insulin Aggregation? A Combined Protein Crystallography, Capillary Electrophoresis, and Molecular Simulation Study. *Journal of Physical Chemistry B*, **2018**, 122, 10069-10076	3.4	21
72	Tri-Orthogonal Scaffolds for the Solid-Phase Synthesis of Peptides. *European Journal of Organic Chemistry*, **2018**, 2018, 5180-5192	3.2	5
71	Probing Tripodal Peptide Scaffolds as Insulin and IGF-1 Receptor Ligands. *European Journal of Organic Chemistry*, **2018**, 2018, 5193-5201	3.2	0
70	Optimized syntheses of Fmoc azido amino acids for the preparation of azidopeptides. *Journal of Peptide Science*, **2017**, 23, 202-214	2.1	10
69	Computational and structural evidence for neurotransmitter-mediated modulation of the oligomeric states of human insulin in storage granules. *Journal of Biological Chemistry*, **2017**, 292, 8342-8355	5.4	12
68	Insulin-like Growth Factor 1 Analogs Clicked in the C Domain: Chemical Synthesis and Biological Activities. *Journal of Medicinal Chemistry*, **2017**, 60, 10105-10117	8.3	13
67	Structural Perspectives of Insulin Receptor Isoform-Selective Insulin Analogs. *Frontiers in Endocrinology*, **2017**, 8, 167	5.7	16
66	Synthesis and Evaluation of a Library of Trifunctional Scaffold-Derived Compounds as Modulators of the Insulin Receptor. *ACS Combinatorial Science*, **2016**, 18, 710-722	3.9	14
65	Insulin-Insulin-like Growth Factors Hybrids as Molecular Probes of Hormone:Receptor Binding Specificity. *Biochemistry*, **2016**, 55, 2903-13	3.2	16
64	Probing Receptor Specificity by Sampling the Conformational Space of the Insulin-like Growth Factor II C-domain. *Journal of Biological Chemistry*, **2016**, 291, 21234-21245	5.4	12
63	Rational steering of insulin binding specificity by intra-chain chemical crosslinking. *Scientific Reports* , **2016**, 6, 19431	4.9	19
62	The Development of a Versatile Trifunctional Scaffold for Biological Applications. *European Journal of Organic Chemistry*, **2015**, 2015, 3689-3701	3.2	19
61	A CuAAC-Hydrazone-CuAAC Trifunctional Scaffold for the Solid-Phase Synthesis of Trimodal Compounds: Possibilities and Limitations. *Molecules*, **2015**, 20, 19310-29	4.8	11
60	Mono-N-acyl-2,6-diaminopimelic acid derivatives: analysis by electromigration and spectroscopic methods and examination of enzyme inhibitory activity. *Analytical Biochemistry*, **2014**, 467, 4-13	3.1	5
59	Insight into the structural and biological relevance of the T/R transition of the N-terminus of the B-chain in human insulin. *Biochemistry*, **2014**, 53, 3392-402	3.2	25
58	Structural and functional study of the GlnB22-insulin mutant responsible for maturity-onset diabetes of the young. *PLoS ONE*, **2014**, 9, e112883	3.7	16

57	Specific potassium ion interactions facilitate homocysteine binding to betaine-homocysteine S-methyltransferase. *Proteins: Structure, Function and Bioinformatics*, **2014**, 82, 2552-64	4.2	6
56	Human insulin analogues modified at the B26 site reveal a hormone conformation that is undetected in the receptor complex. *Acta Crystallographica Section D: Biological Crystallography*, **2014**, 70, 2765-74		24
55	Quantification of homocysteine-related metabolites and the role of betaine-homocysteine S-methyltransferase in HepG2 cells. *Biomedical Chromatography*, **2013**, 27, 111-21	1.7	18
54	Effects of hyperhomocysteinemia and betaine-homocysteine S-methyltransferase inhibition on hepatocyte metabolites and the proteome. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2013**, 1834, 1596-606	4	6
53	Simplified syntheses of the water-soluble chiral shift reagents Sm-(R)-pdta and Sm-(S)-pdta. *Tetrahedron Letters*, **2013**, 54, 6296-6297	2	1
52	How insulin engages its primary binding site on the insulin receptor. *Nature*, **2013**, 493, 241-5	50.4	270
51	The development of a new class of inhibitors for betaine-homocysteine S-methyltransferase. *European Journal of Medicinal Chemistry*, **2013**, 65, 256-75	6.8	12
50	Structural integrity of the B24 site in human insulin is important for hormone functionality. *Journal of Biological Chemistry*, **2013**, 288, 10230-40	5.4	34
49	Double-headed sulfur-linked amino acids as first inhibitors for betaine-homocysteine S-methyltransferase 2. *Journal of Medicinal Chemistry*, **2012**, 55, 6822-31	8.3	4
48	S1 pocket fingerprints of human and bacterial methionine aminopeptidases determined using fluorogenic libraries of substrates and phosphorus based inhibitors. *Biochimie*, **2012**, 94, 704-10	4.6	16
47	Insulin and insulin-like growth factor II differentially regulate endocytic sorting and stability of insulin receptor isoform A. *Journal of Biological Chemistry*, **2012**, 287, 11422-36	5.4	62
46	Unusual activity pattern of leucine aminopeptidase inhibitors based on phosphorus containing derivatives of methionine and norleucine. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2011**, 26, 155-61	5.6	10
45	Non-equivalent role of inter- and intramolecular hydrogen bonds in the insulin dimer interface. *Journal of Biological Chemistry*, **2011**, 286, 36968-77	5.4	27
44	Implications for the active form of human insulin based on the structural convergence of highly active hormone analogues. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 1966-70	11.5	44
43	Dietary intake of S-(alpha-carboxybutyl)-DL-homocysteine induces hyperhomocysteinemia in rats. *Nutrition Research*, **2010**, 30, 492-500	4	23
42	Synthesis of N-succinyl-L,L-diaminopimelic acid mimetics via selective protection. *Protein and Peptide Letters*, **2010**, 17, 405-9	1.9	5
41	Inhibitors of N(alpha)-acetyl-L-ornithine deacetylase: synthesis, characterization and analysis of their inhibitory potency. *Amino Acids*, **2010**, 38, 1155-64	3.5	7
40	Synthesis of Ecarboxyphosphinopeptides derived from norleucine. *Amino Acids*, **2010**, 39, 1265-80	3.5	2

39	Changes in the proteomes of the hemocytes and fat bodies of the flesh fly Sarcophaga bullata larvae after infection by Escherichia coli. *Proteome Science*, **2010**, 8, 1	2.6	51
38	Efficient synthesis of phosphonodepsipeptides derived from norleucine. *Tetrahedron*, **2009**, 65, 6090-6103	2.4	14
37	Structure-activity study of new inhibitors of human betaine-homocysteine S-methyltransferase. *Journal of Medicinal Chemistry*, **2009**, 52, 3652-65	8.3	10
36	Two-dimensional electrophoretic comparison of metastatic and non-metastatic human breast tumors using in vitro cultured epithelial cells derived from the cancer tissues. *BMC Cancer*, **2008**, 8, 107	4.8	14
35	Insulin analogues with modifications at position B26. Divergence of binding affinity and biological activity. *Biochemistry*, **2008**, 47, 5858-68	3.2	28
34	2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: Comparison with parental cell line MDA-MB-231. *Oncology Reports*, **2008**,	3.5	6
33	Synthesis of norleucine-derived phosphonopeptides. *Tetrahedron Letters*, **2008**, 49, 4366-4368	2	8
32	Mapping the peptide and protein immune response in the larvae of the fleshfly Sarcophaga bullata. *Journal of Peptide Science*, **2008**, 14, 670-82	2.1	12
31	Evaluation of carrier ampholyte-based capillary electrophoresis for separation of peptides and peptide mimetics. *Electrophoresis*, **2008**, 29, 3759-67	3.6	11
30	Synthesis of methionine- and norleucine-derived phosphinopeptides. *Tetrahedron Letters*, **2008**, 49, 5629-5631	2	14
29	2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: comparison with parental cell line MDA-MB-231. *Oncology Reports*, **2008**, 19, 1237-44	3.5	13
28	The use of Fmoc-Lys(Pac)-OH and penicillin G acylase in the preparation of novel semisynthetic insulin analogs. *Journal of Peptide Science*, **2007**, 13, 334-41	2.1	13
27	2-DE analysis of a new human cell line EM-G3 derived from breast cancer progenitor cells and comparison with normal mammary epithelial cells. *Proteomics*, **2007**, 7, 1549-59	4.8	17
26	Determination of pK(a) values of diastereomers of phosphinic pseudopeptides by CZE. *Electrophoresis*, **2006**, 27, 4648-57	3.6	26
25	Activation of murine RNase L by isopolar 2Ţphosphonate analogues of 2Ţ5Toligoadenylates. *Journal of Medicinal Chemistry*, **2006**, 49, 3955-62	8.3	12
24	S-alkylated homocysteine derivatives: new inhibitors of human betaine-homocysteine S-methyltransferase. *Journal of Medicinal Chemistry*, **2006**, 49, 3982-9	8.3	25
23	Inhibition of betaine-homocysteine S-methyltransferase causes hyperhomocysteinemia in mice. *Journal of Nutrition*, **2006**, 136, 1493-7	4.1	46
22	A new colorimetric assay for methionyl aminopeptidases: examination of the binding of a new class of pseudopeptide analog inhibitors. *Analytical Biochemistry*, **2006**, 357, 43-9	3.1	13

21	The role of betaine-homocysteine S-methyltransferase (BHMT) in the regulation of plasma total homocysteine (tHcy). *FASEB Journal*, **2006**, 20, A859	0.9	
20	Preparation and characterization of two LysB29 specifically labelled fluorescent derivatives of human insulin. *Journal of Peptide Science*, **2004**, 10, 470-8	2.1	6
19	Shortened insulin analogues: marked changes in biological activity resulting from replacement of TyrB26 and N-methylation of peptide bonds in the C-terminus of the B-chain. *Biochemistry*, **2004**, 43, 2323-31	3.2	21
18	Dissecting the catalytic mechanism of betaine-homocysteine S-methyltransferase by use of intrinsic tryptophan fluorescence and site-directed mutagenesis. *Biochemistry*, **2004**, 43, 5341-51	3.2	28
17	Physicochemical characterization of phosphinic pseudopeptides by capillary zone electrophoresis in highly acidic background electrolytes. *Electrophoresis*, **2003**, 24, 774-81	3.6	44
16	Separation of diastereomers of phosphinic pseudopeptides by capillary zone electrophoresis and reverse phase high-performance liquid chromatography. *Journal of Separation Science*, **2003**, 26, 653-660	3.4	15
15	Combining combinatorial chemistry and affinity chromatography: highly selective inhibitors of human betaine: homocysteine S-methyltransferase. *Chemistry and Biology*, **2003**, 10, 113-22		27
14	Betaine-homocysteine methyltransferase: zinc in a distorted barrel. *Structure*, **2002**, 10, 1159-71	5.2	100
13	Analysis and characterization of phosphinic pseudopeptides by capillary zone electrophoresis. *Electrophoresis*, **2002**, 23, 215-22	3.6	20
12	Determination of dissociation constant of phosphinate group in phosphinic pseudopeptides by capillary zone electrophoresis. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2002**, 770, 145-54	3.2	36
11	Side reactions during photochemical cleavage of an alpha-methyl-6-nitroveratryl-based photolabile linker. *Journal of Peptide Science*, **2000**, 6, 355-65	2.1	21
10	Phosphinic acid compounds in biochemistry, biology and medicine. *Current Medicinal Chemistry*, **2000**, 7, 629-47	4.3	171
9	RXP 407, a phosphinic peptide, is a potent inhibitor of angiotensin I converting enzyme able to differentiate between its two active sites. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 4330-5	11.5	151
8	Theory of the correlation between capillary and free-flow zone electrophoresis and its use for the conversion of analytical capillary separations to continuous free-flow preparative processes. Application to analysis and preparation of fragments of insulin. *Journal of Chromatography A*, **1998**, 796, 211-28	4.5	44
7	Examination of the role of endopeptidase 3.4.24.15 in A beta secretion by human transfected cells. *British Journal of Pharmacology*, **1997**, 121, 556-62	8.6	34
6	Effect of a novel selective and potent phosphinic peptide inhibitor of endopeptidase 3.4.24.16 on neurotensin-induced analgesia and neuronal inactivation. *British Journal of Pharmacology*, **1997**, 121, 705-10	8.6	29
5	Protection of the Hydroxyphosphinyl Function of Phosphinic Dipeptides by Adamantyl. Application to the Solid-Phase Synthesis of Phosphinic Peptides. *Journal of Organic Chemistry*, **1996**, 61, 6601-6605	4.2	67
4	Development of the first potent and selective inhibitor of the zinc endopeptidase neurolysin using a systematic approach based on combinatorial chemistry of phosphinic peptides. *Journal of Biological Chemistry*, **1996**, 271, 19606-11	5.4	79

3	Development of highly potent and selective phosphinic peptide inhibitors of zinc endopeptidase 24-15 using combinatorial chemistry. *Journal of Biological Chemistry*, **1995**, 270, 21701-6	5.4	93
2	Semisynthetic insulin analogues modified in positions B24, B25 and B29. *Biological Chemistry Hoppe-Seyler*, **1994**, 375, 373-8		9
1	Purification of Penicillin Amidohydrolase, an Enzyme for Semisynthetic Procedures. *Collection of Czechoslovak Chemical Communications*, **1992**, 57, 2187-2191		2