Frauke Melchior

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Transient deSUMOylation of IRF2BP proteins controls early transcription in EGFR signaling. EMBO Reports, 2021, 22, e49651.	4.5	13
2	The Sumo proteome of proliferating and neuronal-differentiating cells reveals Utf1 among key Sumo targets involved in neurogenesis. Cell Death and Disease, 2021, 12, 305.	6.3	10
3	SCF ^{Fbxw5} targets kinesinâ€13 proteins to facilitate ciliogenesis. EMBO Journal, 2021, 40, e107735.	7.8	12
4	Heat shock transcription factor 1 is SUMOylated in the activated trimeric state. Journal of Biological Chemistry, 2021, 296, 100324.	3.4	15
5	The ubiquitin-like modifier FAT10 interferes with SUMO activation. Nature Communications, 2019, 10, 4452.	12.8	29
6	Hypoxia-induced Changes in SUMO Conjugation Affect Transcriptional Regulation Under Low Oxygen. Molecular and Cellular Proteomics, 2019, 18, 1197-1209.	3.8	20
7	Control of SUMO and Ubiquitin by ROS: Signaling and disease implications. Molecular Aspects of Medicine, 2018, 63, 3-17.	6.4	44
8	Thiolutin is a zinc chelator that inhibits the Rpn11 and other JAMM metalloproteases. Nature Chemical Biology, 2017, 13, 709-714.	8.0	95
9	IRAK2 directs stimulus-dependent nuclear export of inflammatory mRNAs. ELife, 2017, 6, .	6.0	22
10	The RanBP2/RanGAP1*SUMO1/Ubc9 SUMO E3 ligase is a disassembly machine for Crm1-dependent nuclear export complexes. Nature Communications, 2016, 7, 11482.	12.8	79
11	Reconstitution of the Recombinant RanBP2 SUMO E3 Ligase Complex. Methods in Molecular Biology, 2016, 1475, 41-54.	0.9	2
12	Redox regulation of <scp>SUMO</scp> enzymes is required for <scp>ATM</scp> activity and survival in oxidative stress. EMBO Journal, 2016, 35, 1312-1329.	7.8	35
13	A Stable Chemical SUMO1â€“Ubc9 Conjugate Specifically Binds as a Thioester Mimic to the RanBP2â€“E3 Ligase Complex. ChemBioChem, 2015, 16, 1183-1189.	2.6	6
14	Sumoylation of the GTPase Ran by the RanBP2 SUMO E3 Ligase Complex. Journal of Biological Chemistry, 2015, 290, 23589-23602.	3.4	32
15	The Ran GTPase-Activating Protein (RanGAP1) Is Critically Involved in Smooth Muscle Cell Differentiation, Proliferation and Migration following Vascular Injury: Implications for Neointima Formation and Restenosis. PLoS ONE, 2014, 9, e101519.	2.5	13
16	SUMOylation-Dependent LRH-1/PROX1 Interaction Promotes Atherosclerosis by Decreasing Hepatic Reverse Cholesterol Transport. Cell Metabolism, 2014, 20, 603-613.	16.2	73
17	A role for the CB-associated SUMO isopeptidase USPL1 in RNAPII-mediated snRNA transcription. Journal of Cell Science, 2014, 127, 1065-78.	2.0	48
18	Identification and analysis of endogenous SUMO1 and SUMO2/3 targets in mammalian cells and tissues using monoclonal antibodies. Nature Protocols, 2014, 9, 896-909.	12.0	69

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19	Exploring the association between genetic variation in the <scp>SUMO</scp> isopeptidase gene <scp><i>USPL1</i></scp> and breast cancer through integration of data from the populationâ€based <scp>GENICA</scp> study and external genetic databases. International Journal of Cancer, 2013, 133, 362-372.	5.1	13
20	SCFFbxw5 mediates transient degradation of actin remodeller Eps8 to allow proper mitotic progression. Nature Cell Biology, 2013, 15, 179-188.	10.3	32
21	Detecting endogenous SUMO targets in mammalian cells and tissues. Nature Structural and Molecular Biology, 2013, 20, 525-531.	8.2	188
22	Sumoylation: A Regulatory Protein Modification in Health and Disease. Annual Review of Biochemistry, 2013, 82, 357-385.	11.1	918
23	SUMO unloads the Kap114 cab. EMBO Journal, 2012, 31, 2439-2440.	7.8	1
24	A Novel SUMO1-specific Interacting Motif in Dipeptidyl Peptidase 9 (DPP9) That Is Important for Enzymatic Regulation. Journal of Biological Chemistry, 2012, 287, 44320-44329.	3.4	53
25	Dynamically regulated sumoylation of HDAC2 controls p53 deacetylation and restricts apoptosis following genotoxic stress. Journal of Molecular Cell Biology, 2012, 4, 284-293.	3.3	70
26	In vivo localization and identification of SUMOylated proteins in the brain of His ₆ -HA-SUMO1 knock-in mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21122-21127.	7.1	83
27	The RanBP2/RanGAP1â^—SUMO1/Ubc9 Complex Is a Multisubunit SUMO E3 Ligase. Molecular Cell, 2012, 46, 287-298.	9.7	145
28	Ubiquitinâ€specific proteaseâ€like 1 (USPL1) is a SUMO isopeptidase with essential, nonâ€catalytic functions. EMBO Reports, 2012, 13, 930-938.	4.5	143
29	Recombinant Reconstitution of Sumoylation Reactions In Vitro. Methods in Molecular Biology, 2012, 832, 93-110.	0.9	19
30	Importin Î±/Î² mediates nuclear import of individual SUMO E1 subunits and of the holo-enzyme. Molecular Biology of the Cell, 2011, 22, 652-660.	2.1	19
31	Sumoylation inhibits Î±-synuclein aggregation and toxicity. Journal of Cell Biology, 2011, 194, 49-60.	5.2	210
32	Sumoylation inhibits a-synuclein aggregation and toxicity. Journal of Experimental Medicine, 2011, 208, i23-i23.	8.5	2
33	Bicaudal D2, Dynein, and Kinesin-1 Associate with Nuclear Pore Complexes and Regulate Centrosome and Nuclear Positioning during Mitotic Entry. PLoS Biology, 2010, 8, e1000350.	5.6	268
34	â€œChopNSpice,â€•a Mass Spectrometric Approach That Allows Identification of Endogenous Small Ubiquitin-like Modifier-conjugated Peptides. Molecular and Cellular Proteomics, 2009, 8, 2664-2675.	3.8	57
35	The Cytoplasmic Peptidase DPP9 Is Rate-limiting for Degradation of Proline-containing Peptides. Journal of Biological Chemistry, 2009, 284, 27211-27219.	3.4	95
36	An In Vitro FRET-Based Assay for the Analysis of SUMO Conjugation and Isopeptidase Cleavage. Methods in Molecular Biology, 2009, 497, 241-251.	0.9	17

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37	Performing In Vitro Sumoylation Reactions Using Recombinant Enzymes. Methods in Molecular Biology, 2009, 497, 187-199.	0.9	55
38	SUMO. Nature, 2008, 452, 709-711.	27.8	141
39	Mechanism and Consequences for Paralog-Specific Sumoylation of Ubiquitin-Specific Protease 25. Molecular Cell, 2008, 30, 610-619.	9.7	202
40	The Nup358-RanGAP Complex Is Required for Efficient Importin Î±/Î²-dependent Nuclear Import. Molecular Biology of the Cell, 2008, 19, 2300-2310.	2.1	122
41	Sumoylation and proteasomal activity determine the transactivation properties of the mineralocorticoid receptor. Molecular and Cellular Endocrinology, 2007, 268, 20-29.	3.2	46
42	Concepts in sumoylation: a decade on. Nature Reviews Molecular Cell Biology, 2007, 8, 947-956.	37.0	1,526
43	Regulation of SUMOylation by Reversible Oxidation of SUMO Conjugating Enzymes. Molecular Cell, 2006, 21, 349-357.	9.7	323
44	SUMO: regulating the regulator. Cell Division, 2006, 1, 13.	2.4	130
45	SUMOylation of the Corepressor N-CoR Modulates Its Capacity to Repress Transcription. Molecular Biology of the Cell, 2006, 17, 1643-1651.	2.1	51
46	SUMO modification of the ubiquitin-conjugating enzyme E2-25K. Nature Structural and Molecular Biology, 2005, 12, 264-269.	8.2	175
47	Quantitative SUMO-1 Modification of a Vaccinia Virus Protein Is Required for Its Specific Localization and Prevents Its Self-Association. Molecular Biology of the Cell, 2005, 16, 2822-2835.	2.1	39
48	A Fluorescence Resonance Energy Transferâ€Based Assay to Study SUMO Modification in Solution. Methods in Enzymology, 2005, 398, 20-32.	1.0	40
49	RanGAP1*SUMO1 is phosphorylated at the onset of mitosis and remains associated with RanBP2 upon NPC disassembly. Journal of Cell Biology, 2004, 164, 965-971.	5.2	58
50	Regulation of Smad4 Sumoylation and Transforming Growth Factor-Î² Signaling by Protein Inhibitor of Activated STAT1. Journal of Biological Chemistry, 2004, 279, 22857-22865.	3.4	77
51	The RanBP2 SUMO E3 ligase is neither HECT- nor RING-type. Nature Structural and Molecular Biology, 2004, 11, 984-991.	8.2	134
52	Nuclear Pore Complex Structure and Dynamics Revealed by Cryoelectron Tomography. Science, 2004, 306, 1387-1390.	12.6	451
53	SUMO Modification. , 2004, , 130-134.		0
54	SUMO: ligases, isopeptidases and nuclear pores. Trends in Biochemical Sciences, 2003, 28, 612-618.	7.5	355

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55	Opposed Regulation of Corepressor CtBP by SUMOylation and PDZ Binding. Molecular Cell, 2003, 11, 1389-1396.	9.7	155
56	Activation of Transforming Growth Factor-Î² Signaling by SUMO-1 Modification of Tumor Suppressor Smad4/DPC4. Journal of Biological Chemistry, 2003, 278, 18714-18719.	3.4	121
57	CRM1/Ran-Mediated Nuclear Export of p27Kip1Involves a Nuclear Export Signal and Links p27 Export and Proteolysis. Molecular Biology of the Cell, 2003, 14, 201-213.	2.1	174
58	SUMO-1 and p53. Cell Cycle, 2002, 1, 243-247.	2.6	83
59	The Nucleoporin RanBP2 Has SUMO1 E3 Ligase Activity. Cell, 2002, 108, 109-120.	28.9	714
60	Nucleocytoplasmic Transport. Developmental Cell, 2002, 3, 304-306.	7.0	4
61	Ubiquitin-Related Modifier SUMO1 and Nucleocytoplasmic Transport. Traffic, 2002, 3, 381-387.	2.7	156
62	The SUMO E3 ligase RanBP2 promotes modification of the HDAC4 deacetylase. EMBO Journal, 2002, 21, 2682-2691.	7.8	284
63	Transcription factor Sp3 is silenced through SUMO modification by PIAS1. EMBO Journal, 2002, 21, 5206-5215.	7.8	234
64	SUMO-1 and p53. Cell Cycle, 2002, 1, 245-9.	2.6	48
65	Ran GTPase cycle: One mechanism â€" two functions. Current Biology, 2001, 11, R257-R260.	3.9	28
66	PIASy, a nuclear matrix-associated SUMO E3 ligase, represses LEF1 activity by sequestration into nuclear bodies. Genes and Development, 2001, 15, 3088-3103.	5.9	464
67	Mdm2â€"SUMO1: is bigger better?. Nature Cell Biology, 2000, 2, E161-E163.	10.3	18
68	SUMOâ€"Nonclassical Ubiquitin. Annual Review of Cell and Developmental Biology, 2000, 16, 591-626.	9.4	702
69	Nuclear Protein Import in a Permeabilized Cell Assay. , 1998, 88, 265-274.		12
70	Two-way trafficking with Ran. Trends in Cell Biology, 1998, 8, 175-179.	7.9	141
71	Structure determination of the small ubiquitin-related modifier SUMO-1. Journal of Molecular Biology, 1998, 280, 275-286.	4.2	356
72	Molecular Characterization of the SUMO-1 Modification of RanGAP1 and Its Role in Nuclear Envelope Association. Journal of Cell Biology, 1998, 140, 259-270.	5.2	255

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73	Modification of Ran GTPase-activating Protein by the Small Ubiquitin-related Modifier SUMO-1 Requires Ubc9, an E2-type Ubiquitin-conjugating Enzyme Homologue. Journal of Biological Chemistry, 1998, 273, 6503-6507.	3.4	132
74	RanGTP Targets p97 to RanBP2, a Filamentous Protein Localized at the Cytoplasmic Periphery of the Nuclear Pore Complex. Molecular Biology of the Cell, 1997, 8, 2379-2390.	2.1	131
75	Plant Polyketide Synthases Leading to Stilbenoids Have a Domain Catalyzing Malonyl-CoA:CO2 Exchange, Malonyl-CoA Decarboxylation, and Covalent Enzyme Modification and a Site for Chain Lengthening. Biochemistry, 1997, 36, 8349-8358.	2.5	24
76	A Small Ubiquitin-Related Polypeptide Involved in Targeting RanGAP1 to Nuclear Pore Complex Protein RanBP2. Cell, 1997, 88, 97-107.	28.9	1,125
77	RNA1 Encodes a GTPase-activating Protein Specific for Gsp1p, the Ran/TC4 Homologue of Saccharomyces cerevisiae. Journal of Biological Chemistry, 1995, 270, 11860-11865.	3.4	121
78	GTP hydrolysis by Ran occurs at the nuclear pore complex in an early step of protein import.. Journal of Cell Biology, 1995, 131, 571-581.	5.2	141
79	[30] Analysis of Ran/TC4 function in nuclear protein import. Methods in Enzymology, 1995, 257, 279-291.	1.0	57
80	Mechanisms of nuclear protein import. Current Opinion in Cell Biology, 1995, 7, 310-318.	5.4	246
81	Inhibition of nuclear protein import by nonhydrolyzable analogues of GTP and identification of the small GTPase Ran/TC4 as an essential transport factor [published erratum appears in J Cell Biol 1994 Jan;124(1-2):217]. Journal of Cell Biology, 1993, 123, 1649-1659.	5.2	545
82	Phosphorus-carbon bond cleavage at a di-iron centre: synthesis of Î¼-phosphidomethyl complexes [Fe2(CO)6(Î¼-CH2PR2)(Î¼-PR2)] from [Fe2(CO)6(Î¼-R2PCH2PR2)]. Inorganica Chimica Acta, 1992, 198-200, 257-270.	2.4	31
83	Coordinate- and elicitor-dependent expression of stilbene synthase and phenylalanine ammonia-lyase genes in Vitis cv. Optima. Archives of Biochemistry and Biophysics, 1991, 288, 552-557.	3.0	86
84	Induction of stilbene synthase by Botrytis cinerea in cultured grapevine cells. Planta, 1991, 183, 307-14.	3.2	95
85	Grapevine stilbene synthase cDNA only slightly differing from chalcone synthase cDNA is expressed inEscherichia coliinto a catalytically active enzyme. FEBS Letters, 1990, 268, 17-20.	2.8	81
86	Phosphorusâ€"carbon bond cleavage at a di-iron centre. Conversion of Âµ-R2PCH2PR2to Âµ-R2PCH2and Âµ-PR2: crystal structures of [Fe2(CO)4(Âµ-Ph2PCH2)(Âµ-PPh2)(Âµ-Me2PCH2PMe2)] and [Fe2(CO)6{Âµ-PhPCH(Me)P(Ph)(C6H4-O)}]. Journal of the Chemical Society Chemical Communications, 1986, , 540-542.	2.0	36