Utz Fischer

List of Publications by Year
in descending order

136	12,882	23567	24258
papers	citations	58 h-index	110 g-index

138	138	138	10240
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The HIV-1 Rev Activation Domain is a nuclear export signal that accesses an export pathway used by specific cellular RNAs. Cell, 1995, 82, 475-483.	28.9	1,113
2	The SMNâ€“SIP1 Complex Has an Essential Role in Spliceosomal snRNP Biogenesis. Cell, 1997, 90, 1023-1029.	28.9	612
3	The Spinal Muscular Atrophy Disease Gene Product, SMN, and Its Associated Protein SIP1 Are in a Complex with Spliceosomal snRNP Proteins. Cell, 1997, 90, 1013-1021.	28.9	595
4	Evidence that fragile X mental retardation protein is a negative regulator of translation. Human Molecular Genetics, 2001, 10, 329-338.	2.9	506
5	HIV-1 infection of non-dividing cells: evidence that the amino-terminal basic region of the viral matrix protein is important for Gag processing but not for post-entry nuclear import. EMBO Journal, 1997, 16, 4531-4539.	7.8	327
6	Symmetrical dimethylation of arginine residues in spliceosomal Sm protein B/Bâ€² and the Sm-like protein LSm4, and their interaction with the SMN protein. Rna, 2001, 7, 1531-1542.	3.5	321
7	High surface area carbon aerogels for supercapacitors. Journal of Non-Crystalline Solids, 1998, 225, 81-85.	3.1	309
8	Water channels in the plant plasma membrane cloned by immunoselection from a mammalian expression system. Plant Journal, 1994, 6, 187-199.	5.7	308
9	Methylation of Sm proteins by a complex containing PRMT5 and the putative U snRNP assembly factor pICln. Current Biology, 2001, 11, 1990-1994.	3.9	306
10	SMN tudor domain structure and its interaction with the Sm proteins. Nature Structural Biology, 2001, 8, 27-31.	9.7	285
11	A multiprotein complex mediates the ATP-dependent assembly of spliceosomal U snRNPs. Nature Cell Biology, 2001, 3, 945-949.	10.3	284
12	Essential Role for the Tudor Domain of SMN in Spliceosomal U snRNP Assembly: Implications for Spinal Muscular Atrophy. Human Molecular Genetics, 1999, 8, 2351-2357.	2.9	237
13	A Role for the M9 Transport Signal of hnRNP A1 in mRNA Nuclear Export. Journal of Cell Biology, 1997, 137, 27-35.	5.2	234
14	An essential signaling role for the m3G cap in the transport of U1 snRNP to the nucleus. Science, 1990, 249, 786-790.	12.6	233
15	Chromophore equilibria in bacteriorhodopsin. Biophysical Journal, 1979, 28, 211-230.	0.5	228
16	Evidence that HIV-1 Rev directly promotes the nuclear export of unspliced RNA.. EMBO Journal, 1994, 13, 4105-4112.	7.8	222
17	SMN-mediated assembly of RNPs: a complex story. Trends in Cell Biology, 2002, 12, 472-478.	7.9	210
18	Reduced U snRNP assembly causes motor axon degeneration in an animal model for spinal muscular atrophy. Genes and Development, 2005, 19, 2320-2330.	5.9	207

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19	An Assembly Chaperone Collaborates with the SMN Complex to Generate Spliceosomal SnRNPs. Cell, 2008, 135, 497-509.	28.9	189
20	Unique Sm core structure of U7 snRNPs: assembly by a specialized SMN complex and the role of a new component, Lsm11, in histone RNA processing. Genes and Development, 2003, 17, 2321-2333.	5.9	188
21	Assisted RNP assembly: SMN and PRMT5 complexes cooperate in the formation of spliceosomal UsnRNPs. EMBO Journal, 2002, 21, 5853-5863.	7.8	173
22	Interaction of the Human Immunodeficiency Virus Type 1 Vpr Protein with the Nuclear Pore Complex. Journal of Virology, 1998, 72, 6004-6013.	3.4	168
23	Structural basis for dimethylarginine recognition by the Tudor domains of human SMN and SPF30 proteins. Nature Structural and Molecular Biology, 2011, 18, 1414-1420.	8.2	164
24	Nucleo-cytoplasmic transport of U snRNPs: definition of a nuclear location signal in the Sm core domain that binds a transport receptor independently of the m3G cap.. EMBO Journal, 1993, 12, 573-583.	7.8	159
25	Diversity in the signals required for nuclear accumulation of U snRNPs and variety in the pathways of nuclear transport.. Journal of Cell Biology, 1991, 113, 705-714.	5.2	154
26	The Laâ€related protein LARP7 is a component of the 7SK ribonucleoprotein and affects transcription of cellular and viral polymerase II genes. EMBO Reports, 2008, 9, 569-575.	4.5	152
27	Direct Interaction of the Spinal Muscular Atrophy Disease Protein SMN with the Small Nucleolar RNA-associated Protein Fibrillarin. Journal of Biological Chemistry, 2001, 276, 38645-38651.	3.4	147
28	Deletion of TOP3Î², a component of FMRP-containing mRNPs, contributes to neurodevelopmental disorders. Nature Neuroscience, 2013, 16, 1228-1237.	14.8	144
29	Evidence that HIV-1 Rev directly promotes the nuclear export of unspliced RNA. EMBO Journal, 1994, 13, 4105-12.	7.8	143
30	Translation and replication of hepatitis C virus genomic RNA depends on ancient cellular proteins that control mRNA fates. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13517-13522.	7.1	127
31	Characterization of a nuclear 20S complex containing the survival of motor neurons (SMN) protein and a specific subset of spliceosomal Sm proteins. Human Molecular Genetics, 2000, 9, 1977-1986.	2.9	126
32	A Comprehensive Interaction Map of the Human Survival of Motor Neuron (SMN) Complex. Journal of Biological Chemistry, 2007, 282, 5825-5833.	3.4	123
33	RioK1, a New Interactor of Protein Arginine Methyltransferase 5 (PRMT5), Competes with pICln for Binding and Modulates PRMT5 Complex Composition and Substrate Specificity. Journal of Biological Chemistry, 2011, 286, 1976-1986.	3.4	120
34	Intronic miR-26b controls neuronal differentiation by repressing its host transcript,ctdsp2. Genes and Development, 2012, 26, 25-30.	5.9	120
35	RNA TRANSPORT. Annual Review of Neuroscience, 1997, 20, 269-301.	10.7	119
36	Carbon Aerogels as Electrode Material in Supercapacitors. Journal of Porous Materials, 1997, 4, 281-285.	2.6	116

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37	Biogenesis of spliceosomal small nuclear ribonucleoproteins. Wiley Interdisciplinary Reviews RNA, 2011, 2, 718-731.	6.4	116
38	Deciphering the mRNP Code: RNA-Bound Determinants of Post-Transcriptional Gene Regulation. Trends in Biochemical Sciences, 2017, 42, 369-382.	7.5	115
39	Amphibian transcription factor IIIA proteins contain a sequence element functionally equivalent to the nuclear export signal of human immunodeficiency virus type 1 Rev.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 2936-2940.	7.1	111
40	m3G cap hypermethylation of U1 small nuclear ribonucleoprotein (snRNP) in vitro: evidence that the U1 small nuclear RNA-(guanosine-N2)-methyltransferase is a non-snRNP cytoplasmic protein that requires a binding site on the Sm core domain.. Molecular and Cellular Biology, 1994, 14, 4160-4172.	2.3	103
41	Molecular and functional analysis of intragenic SMN1 mutations in patients with spinal muscular atrophy. Human Mutation, 2005, 25, 64-71.	2.5	101
42	Deciphering the assembly pathway of Smâ€classU snRNPs. FEBS Letters, 2008, 582, 1997-2003.	2.8	99
43	Spinal muscular atrophy: the RNP connection. Trends in Molecular Medicine, 2006, 12, 113-121.	6.7	97
44	Co-regulation of survival of motor neuron (SMN) protein and its interactor SIP1 during development and in spinal muscular atrophy. Human Molecular Genetics, 2001, 10, 497-505.	2.9	94
45	Evolution of an RNP assembly system: A minimal SMN complex facilitates formation of UsnRNPs in Drosophila melanogaster. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10045-10050.	7.1	92
46	Nucleo-cytoplasmic transport of U snRNPs: definition of a nuclear location signal in the Sm core domain that binds a transport receptor independently of the m3G cap. EMBO Journal, 1993, 12, 573-83.	7.8	90
47	IGHMBP2 is a ribosome-associated helicase inactive in the neuromuscular disorder distal SMA type 1 (DSMA1). Human Molecular Genetics, 2009, 18, 1288-1300.	2.9	88
48	ProteoPlex: stability optimization of macromolecular complexes by sparse-matrix screening of chemical space. Nature Methods, 2015, 12, 859-865.	19.0	87
49	The role of RNP biogenesis in spinal muscular atrophy. Current Opinion in Cell Biology, 2009, 21, 387-393.	5.4	84
50	Characterization of Ighmbp2 in motor neurons and implications for the pathomechanism in a mouse model of human spinal muscular atrophy with respiratory distress type 1 (SMARD1). Human Molecular Genetics, 2004, 13, 2031-2042.	2.9	82
51	Structural Basis of Assembly Chaperone- Mediated snRNP Formation. Molecular Cell, 2013, 49, 692-703.	9.7	82
52	m₃G Cap Hypermethylation of U1 Small Nuclear Ribonucleoprotein (snRNP) In Vitro: Evidence that the U1 Small Nuclear RNA-(Guanosine-N2)-Methyltransferase Is a Non-snRNP Cytoplasmic Protein That Requires a Binding Site on the Sm Core Domain. Molecular and Cellular Biology, 1994, 14, 4160-4172.	2.3	78
53	Tdrd3 is a novel stress granule-associated protein interacting with the Fragile-X syndrome protein FMRP. Human Molecular Genetics, 2008, 17, 3236-3246.	2.9	77
54	Gene targeting of Gemin2 in mice reveals a correlation between defects in the biogenesis of U snRNPs and motoneuron cell death. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10126-10131.	7.1	73

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55	Unrip, a factor implicated in cap-independent translation, associates with the cytosolic SMN complex and influences its intracellular localization. Human Molecular Genetics, 2005, 14, 3099-3111.	2.9	70
56	SMN deficiency alters Nrxn2 expression and splicing in zebrafish and mouse models of spinal muscular atrophy. Human Molecular Genetics, 2014, 23, 1754-1770.	2.9	67
57	The Schizosaccharomyces pombe protein Yab8p and a novel factor, Yip1p, share structural and functional similarity with the spinal muscular atrophy-associated proteins SMN and SIP1. Human Molecular Genetics, 2000, 9, 663-674.	2.9	64
58	SMNrp is an essential pre-mRNA splicing factor required for the formation of the mature spliceosome. EMBO Journal, 2001, 20, 2304-2314.	7.8	63
59	Phosphorylation regulates the activity of the SMN complex during assembly of spliceosomal U snRNPs. EMBO Reports, 2005, 6, 70-76.	4.5	63
60	Systemic splicing factor deficiency causes tissue-specific defects: a zebrafish model for retinitis pigmentosaâ€. Human Molecular Genetics, 2011, 20, 368-377.	2.9	60
61	Room temperature organic excitonâ€“polariton condensate in a lattice. Nature Communications, 2020, 11, 2863.	12.8	56
62	Dephosphorylation of survival motor neurons (SMN) by PPM1G/PP2CÎ³ governs Cajal body localization and stability of the SMN complex. Journal of Cell Biology, 2007, 179, 451-465.	5.2	52
63	In vitro reconstitution of U1 and U2 snRNPs from isolated proteins and snRNA. Molecular Biology Reports, 1992, 16, 229-240.	2.3	51
64	A stimulatory role for the La-related protein 4B in translation. Rna, 2010, 16, 1488-1499.	3.5	51
65	Epstein-Barr Virus Nuclear Antigen 2 Binds via Its Methylated Arginine-Glycine Repeat to the Survival Motor Neuron Protein. Journal of Virology, 2003, 77, 5008-5013.	3.4	49
66	UsnRNP biogenesis: mechanisms and regulation. Chromosoma, 2017, 126, 577-593.	2.2	49
67	Nuclear transport of U1 snRNP in somatic cells: differences in signal requirement compared with Xenopus laevis oocytes.. Journal of Cell Biology, 1994, 125, 971-980.	5.2	48
68	Reconstitution of the human U sn <scp>RNP</scp> assembly machinery reveals stepwise Sm protein organization. EMBO Journal, 2015, 34, 1925-1941.	7.8	47
69	Rev-mediated nuclear export of RNA is dominant over nuclear retention and is coupled to the Ran-GTPase cycle. Nucleic Acids Research, 1999, 27, 4128-4134.	14.5	45
70	The Alazami Syndrome-Associated Protein LARP7 Guides U6 Small Nuclear RNA Modification and Contributes to Splicing Robustness. Molecular Cell, 2020, 77, 1014-1031.e13.	9.7	45
71	Mutant Prpf31 causes pre-mRNA splicing defects and rod photoreceptor cell degeneration in a zebrafish model for Retinitis pigmentosa. Molecular Neurodegeneration, 2011, 6, 56.	10.8	43
72	Coherence and Interaction in Confined Room-Temperature Polariton Condensates with Frenkel Excitons. ACS Photonics, 2020, 7, 384-392.	6.6	42

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73	LSm1-7 complexes bind to specific sites in viral RNA genomes and regulate their translation and replication. Rna, 2010, 16, 817-827.	3.5	41
74	LARP4B is an AU-rich sequence associated factor that promotes mRNA accumulation and translation. Rna, 2015, 21, 1294-1305.	3.5	41
75	Structural Basis of Poxvirus Transcription: Vaccinia RNA Polymerase Complexes. Cell, 2019, 179, 1537-1550.e19.	28.9	41
76	LARP7-Mediated U6 snRNA Modification Ensures Splicing Fidelity and Spermatogenesis in Mice. Molecular Cell, 2020, 77, 999-1013.e6.	9.7	41
77	The 1D4 Antibody Labels Outer Segments of Long Double Cone But Not Rod Photoreceptors in Zebrafish. , 2012, 53, 4943.		39
78	Toward an Assembly Line for U7 snRNPs. Journal of Biological Chemistry, 2005, 280, 34435-34440.	3.4	38
79	Cellular strategies for the assembly of molecular machines. Trends in Biochemical Sciences, 2010, 35, 676-683.	7.5	37
80	Accumulated common variants in the broader fragile X gene family modulate autistic phenotypes. EMBO Molecular Medicine, 2015, 7, 1565-1579.	6.9	37
81	Structural Basis of Poxvirus Transcription: Transcribing and Capping Vaccinia Complexes. Cell, 2019, 179, 1525-1536.e12.	28.9	37
82	Mutations in SNRPE, which Encodes a Core Protein of the Spliceosome, Cause Autosomal-Dominant Hypotrichosis Simplex. American Journal of Human Genetics, 2013, 92, 81-87.	6.2	36
83	Identification of a PRPF4 Loss-of-Function Variant That Abrogates U4/U6.U5 Tri-snRNP Integration and Is Associated with Retinitis Pigmentosa. PLoS ONE, 2014, 9, e111754.	2.5	36
84	Signal-mediated nuclear export pathways of proteins and RNAs. Trends in Cell Biology, 1996, 6, 290-293.	7.9	33
85	A 69-kD protein that associates reversibly with the Sm core domain of several spliceosomal snRNP species. Journal of Cell Biology, 1994, 124, 261-272.	5.2	29
86	Impaired spliceosomal UsnRNP assembly leads to Sm mRNA down-regulation and Sm protein degradation. Journal of Cell Biology, 2017, 216, 2391-2407.	5.2	28
87	Room-Temperature Topological Polariton Laser in an Organic Lattice. Nano Letters, 2021, 21, 6398-6405.	9.1	28
88	Arginine methylation in subunits of mammalian pre-mRNA cleavage factor I. Rna, 2010, 16, 1646-1659.	3.5	27
89	Phosphoregulation of the human SMN complex. European Journal of Cell Biology, 2014, 93, 106-117.	3.6	24
90	The Ribosome Cooperates with the Assembly Chaperone pICln to Initiate Formation of snRNPs. Cell Reports, 2016, 16, 3103-3112.	6.4	23

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91	Interaction of 7SK with the Smn complex modulates snRNP production. Nature Communications, 2021, 12, 1278.	12.8	23
92	Selective inhibition of miRNA processing by a herpesvirus-encoded miRNA. Nature, 2022, 605, 539-544.	27.8	23
93	The catalytically inactive tyrosine phosphatase HD-PTP/PTPN23 is a novel regulator of SMN complex localization. Molecular Biology of the Cell, 2015, 26, 161-171.	2.1	22
94	MYCN recruits the nuclear exosome complex to RNA polymerase II to prevent transcription-replication conflicts. Molecular Cell, 2022, 82, 159-176.e12.	9.7	22
95	Strong Coupling in Fully Tunable Microcavities Filled with Biologically Produced Fluorescent Proteins. Advanced Optical Materials, 2017, 5, 1600659.	7.3	21
96	Chemical Synthesis of a 5â€˜-Terminal TMG-Capped Triribonucleotide m32,2,7G5â€˜pppAmpUmpA of U1 RNA. Journal of Organic Chemistry, 1996, 61, 4412-4422.	3.2	20
97	Analysis of genomic clones of the murine U1RNA-associated 70-kDa protein reveals a high evolutionary conservation of the protein between human and mouse. FEBS Journal, 1989, 182, 45-50.	0.2	19
98	Binding of the Heterogeneous Ribonucleoprotein K (hnRNP K) to the Epstein-Barr Virus Nuclear Antigen 2 (EBNA2) Enhances Viral LMP2A Expression. PLoS ONE, 2012, 7, e42106.	2.5	19
99	mRNA metabolism and neuronal disease. FEBS Letters, 2015, 589, 1598-1606.	2.8	19
100	A missense mutation in SNRPE linked to non-syndromal microcephaly interferes with U snRNP assembly and pre-mRNA splicing. PLoS Genetics, 2019, 15, e1008460.	3.5	18
101	Ultrastructural characterisation of a nuclear domain highly enriched in survival of motor neuron (SMN) protein. Experimental Cell Research, 2004, 292, 312-321.	2.6	17
102	A crystallization screen based on alternative polymeric precipitants. Acta Crystallographica Section D: Biological Crystallography, 2010, 66, 685-697.	2.5	17
103	Genotypeâ€“phenotype correlations and novel molecular insights into the DHX30-associated neurodevelopmental disorders. Genome Medicine, 2021, 13, 90.	8.2	16
104	The Sm Core Domain Mediates Targeting of U1 snRNP to Subnuclear Compartments Involved in Transcription and Splicing. Experimental Cell Research, 1999, 249, 189-198.	2.6	15
105	TOR signaling regulates liquid phase separation of the SMN complex governing snRNP biogenesis. Cell Reports, 2021, 35, 109277.	6.4	15
106	A cytoplasmically anchored nuclear protein interferes specifically with the import of nuclear proteins but not U1 snRNA.. Journal of Cell Biology, 1993, 121, 229-240.	5.2	14
107	Stabilize and connect: the role of LARP7 in nuclear non-coding RNA metabolism. RNA Biology, 2021, 18, 290-303.	3.1	14
108	A critical examination of the recently reported crystal structures of the human SMN protein. Human Molecular Genetics, 2016, 25, ddw298.	2.9	13

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109	Structural basis of the complete poxvirus transcription initiation process. Nature Structural and Molecular Biology, 2021, 28, 779-788.	8.2	12
110	The right pick: structural basis of snRNA selection by Gemin5. Genes and Development, 2016, 30, 2341-2344.	5.9	11
111	Native purification of protein and RNA-protein complexes using a novel affinity procedure. Fly, 2009, 3, 223-231.	1.7	10
112	The miR-26 family regulates neural differentiation-associated microRNAs and mRNAs by directly targeting REST. Journal of Cell Science, 2021, 134, .	2.0	10
113	Molding Photonic Boxes into Fluorescent Emitters by Direct Laser Writing. Advanced Materials, 2017, 29, 1605236.	21.0	9
114	Cytoplasmic gene expression: lessons from poxviruses. Trends in Biochemical Sciences, 2022, 47, 892-902.	7.5	8
115	Impaired Local Translation of Î²-actin mRNA in Ighmbp2-Deficient Motoneurons: Implications for Spinal Muscular Atrophy with respiratory Distress (SMARD1). Neuroscience, 2018, 386, 24-40.	2.3	7
116	Crystal Structure of a Variant PAM2 Motif of LARP4B Bound to the MLLE Domain of PABPC1. Biomolecules, 2020, 10, 872.	4.0	7
117	A 5â€²-fluorosulfonylbenzoyladenosine-based method to identify physiological substrates of a Drosophila p21-activated kinase. Analytical Biochemistry, 2007, 368, 178-184.	2.4	6
118	The structure of apo ArnA features an unexpected central binding pocket and provides an explanation for enzymatic cooperativity. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 687-696.	2.5	6
119	Identification and structural analysis of the Schizosaccharomyces pombe SMN complex. Nucleic Acids Research, 2021, 49, 7207-7223.	14.5	6
120	Monoclonal antibody specific to a subclass of polyproline-arg motif provides evidence for the presence of an snRNA-free spliceosomal Sm protein complex in vivo: Implications for molecular interactions involving proline-rich sequences of Sm B/B? proteins. Journal of Cellular Biochemistry, 1999, 74, 168-180.	2.6	5
121	Exciton dynamics in solid-state green fluorescent protein. Applied Physics Letters, 2017, 110, .	3.3	5
122	Drug-Encoded Biomarkers for Monitoring Biological Therapies. PLoS ONE, 2015, 10, e0137573.	2.5	4
123	Crystallizing the 6S and 8S spliceosomal assembly intermediates: a complex project. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2040-2053.	2.5	4
124	Fluorescence Correlation Spectroscopy Reveals Survival Motor Neuron Oligomerization but No Active Transport in Motor Axons of a Zebrafish Model for Spinal Muscular Atrophy. Frontiers in Cell and Developmental Biology, 2021, 9, 639904.	3.7	4
125	Structure and function of the poxvirus transcription machinery. The Enzymes, 2021, 50, 1-20.	1.7	4
126	Assembly of RNPs: help needed. Rna, 2015, 21, 613-614.	3.5	3

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127	Additional causal SNRPE mutations in hereditary hypotrichosis simplex. British Journal of Dermatology, 2021, 185, 439-441.	1.5	3
128	A novel zebrafish model for intermediate type spinal muscular atrophy demonstrates importance of Smn for maintenance of mature motor neurons. Human Molecular Genetics, 2021, 30, 2488-2502.	2.9	3
129	Gene Knockdown in Zebrafish (Danio rerio) as a Tool to Model Photoreceptor Diseases. Methods in Molecular Biology, 2019, 1834, 209-219.	0.9	2
130	Loss of LARP4B, an early event in the tumorigenesis of brain cancer?. Translational Cancer Research, 2016, 5, S1196-S1199.	1.0	2
131	Polariton-lasing in microcavities filled with fluorescent proteins. , 2018, , .		2
132	When one plus one equals three: Biochemistry and bioinformatics combine to answer complex questions. Fly, 2009, 3, 212-214.	1.7	1
133	A generic protocol for the affinity-purification of native macromolecular complexes from poxvirus-infected cells. STAR Protocols, 2022, 3, 101116.	1.2	1
134	An essential signalling role for the m3G cap in the transport of U1 mRNP to the nucleus. Cell Biology International Reports, 1990, 14, 193.	0.6	0
135	N.I.4 Analysis of the molecular basis of spinal muscular atrophy. Neuromuscular Disorders, 2006, 16, 645.	0.6	0
136	Analysis of Photoreceptor Degeneration in the Zebrafish Danio rerio. Methods in Molecular Biology, 2012, 935, 127-137.	0.9	0