# Koichi Kawakami

List of Publications by Year
in descending order



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|---|---|---|---|
| 119 papers | 8,874 citations | 57758 44 h-index | 49909 87 g-index |
| 140 all docs | 140 docs citations | 140 times ranked | 9303 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A Transposon-Mediated Gene Trap Approach Identifies Developmentally Regulated Genes in Zebrafish. Developmental Cell, 2004, 7, 133-144. | 7.0 | 767 |
| 2 | Genetic dissection of neural circuits by Tol2 transposon-mediated Gal4 gene and enhancer trapping in zebrafish. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1255-1260. | 7.1 | 505 |
| 3 | Functional Dissection of the Tol2 Transposable Element Identified the Minimal cis-Sequence and a Highly Repetitive Sequence in the Subterminal Region Essential for Transposition. Genetics, 2006, 174, 639-649. | 2.9 | 487 |
| 4 | Tol2: a versatile gene transfer vector in vertebrates. Genome Biology, 2007, 8, S7. | 9.6 | 442 |
| 5 | Targeting neural circuitry in zebrafish using GAL4 enhancer trapping. Nature Methods, 2007, 4, 323-326. | 19.0 | 375 |
| 6 | Co-option of Sox3 as the male-determining factor on the Y chromosome in the fish Oryzias dancena. Nature Communications, 2014, 5, 4157. | 12.8 | 275 |
| 7 | Transposon tools and methods in zebrafish. Developmental Dynamics, 2005, 234, 244-254. | 1.8 | 268 |
| 8 | Transgenesis and Gene Trap Methods in Zebrafish by Using the Tol2 Transposable Element. Methods in Cell Biology, 2004, 77, 201-222. | 1.1 | 247 |
| 9 | Real-Time Visualization of Neuronal Activity during Perception. Current Biology, 2013, 23, 307-311. | 3.9 | 240 |
| 10 | Stable integration and conditional expression of electroporated transgenes in chicken embryos. Developmental Biology, 2007, 305, 616-624. | 2.0 | 237 |
| 11 | Transposon-mediated BAC transgenesis in zebrafish. Nature Protocols, 2011, 6, 1998-2021. | 12.0 | 206 |
| 12 | Transgenic tools to characterize neuronal properties of discrete populations of zebrafish neurons. Development (Cambridge), 2013, 140, 3927-3931. | 2.5 | 194 |
| 13 | De novo assembly of the goldfish ( Carassius auratus ) genome and the evolution of genes after whole-genome duplication. Science Advances, 2019, 5, eaav0547. | 10.3 | 182 |
| 14 | CSF-contacting neurons regulate locomotion by relaying mechanical stimuli to spinal circuits. Nature Communications, 2016, 7, 10866. | 12.8 | 162 |
| 15 | Excision of the Tol2 transposable element of the medaka fish, Oryzias latipes, in zebrafish, Danio rerio. Gene, 1998, 225, 17-22. | 2.2 | 161 |
| 16 | Targeted gene expression by the Gal4â€UAS system in zebrafish. Development Growth and Differentiation, 2008, 50, 391-399. | 1.5 | 155 |
| 17 | Efficient genetic modification and germ-line transmission of primordial germ cells using piggyBac and Tol2 transposons. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1466-72. | 7.1 | 150 |
| 18 | zTrap: zebrafish gene trap and enhancer trap database. BMC Developmental Biology, 2010, 10, 105. | 2.1 | 147 |

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|---|---|---|---|
| 19 | Insertional mutagenesis by theTol2transposon-mediated enhancer trap approach generated mutations in two developmental genes:tcf7andsynembryn-like. Development (Cambridge), 2008, 135, 159-169. | 2.5 | 142 |
| 20 | Transposition of the Tol2 Element, an Ac-Like Element From the Japanese Medaka Fish Oryzias latipes, in Mouse Embryonic Stem Cells. Genetics, 2004, 166, 895-899. | 2.9 | 132 |
| 21 | Olfactory neural circuitry for attraction to amino acids revealed by transposon-mediated gene trap approach in zebrafish. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9884-9889. | 7.1 | 128 |
| 22 | Activin-A enhances mTOR signaling to promote aberrant chondrogenesis in fibrodysplasia ossificans progressiva. Journal of Clinical Investigation, 2017, 127, 3339-3352. | 8.2 | 126 |
| 23 | Neural signatures of sleep in zebrafish. Nature, 2019, 571, 198-204. | 27.8 | 114 |
| 24 | Transient inflammatory response mediated by interleukin-1Î² is required for proper regeneration in zebrafish fin fold. ELife, 2017, 6, . | 6.0 | 112 |
| 25 | Identification of a neuronal population in the telencephalon essential for fear conditioning in zebrafish. BMC Biology, 2018, 16, 45. | 3.8 | 111 |
| 26 | Activation of the hypothalamic feeding centre upon visual prey detection. Nature Communications, 2017, 8, 15029. | 12.8 | 98 |
| 27 | Glia-neuron interactions underlie state transitions to generalized seizures. Nature Communications, 2019, 10, 3830. | 12.8 | 98 |
| 28 | Left Habenula Mediates Light-Preference Behavior in Zebrafish via an Asymmetrical Visual Pathway. Neuron, 2017, 93, 914-928.e4. | 8.1 | 96 |
| 29 | The Tol2-mediated Gal4-UAS method for gene and enhancer trapping in zebrafish. Methods, 2009, 49, 275-281. | 3.8 | 85 |
| 30 | Mib-Jag1-Notch signalling regulates patterning and structural roles of the notochord by controlling cell-fate decisions. Development (Cambridge), 2010, 137, 2527-2537. | 2.5 | 80 |
| 31 | Endothelial Ca2+ oscillations reflect VEGFR signaling-regulated angiogenic capacity in vivo. ELife, 2015, 4, . | 6.0 | 79 |
| 32 | A novel perivascular cell population in the zebrafish brain. ELife, 2017, 6, . | 6.0 | 77 |
| 33 | Motile-Cilia-Mediated Flow Improves Sensitivity and Temporal Resolution of Olfactory Computations. Current Biology, 2017, 27, 166-174. | 3.9 | 74 |
| 34 | Calcium dysregulation contributes to neurodegeneration in FTLD patient iPSC-derived neurons. Scientific Reports, 2016, 6, 34904. | 3.3 | 67 |
| 35 | Establishment of Gal4 transgenic zebrafish lines for analysis of development of cerebellar neural circuitry. Developmental Biology, 2015, 397, 1-17. | 2.0 | 66 |
| 36 | Transposons As Tools for Functional Genomics in Vertebrate Models. Trends in Genetics, 2017, 33, 784-801. | 6.7 | 64 |

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|---|---|---|---|
| 37 | Optimization of a Neurotoxin to Investigate the Contribution of Excitatory Interneurons to Speed Modulation InÂVivo. Current Biology, 2016, 26, 2319-2328. | 3.9 | 62 |
| 38 | Migration of neuronal precursors from the telencephalic ventricular zone into the olfactory bulb in adult zebrafish. Journal of Comparative Neurology, 2011, 519, 3549-3565. | 1.6 | 59 |
| 39 | Fgf signalling controls diverse aspects of fin regeneration. Development (Cambridge), 2016, 143, 2920-9. | 2.5 | 59 |
| 40 | Epidermal regulation of bone morphogenesis through the development and regeneration of osteoblasts in the zebrafish scale. Developmental Biology, 2018, 437, 105-119. | 2.0 | 59 |
| 41 | Optogenetic modulation of TDP-43 oligomerization accelerates ALS-related pathologies in the spinal motor neurons. Nature Communications, 2020, 11, 1004. | 12.8 | 59 |
| 42 | Glycine-alanine dipeptide repeat protein contributes to toxicity in a zebrafish model of C9orf72 associated neurodegeneration. Molecular Neurodegeneration, 2017, 12, 6. | 10.8 | 57 |
| 43 | A virtual reality system to analyze neural activity and behavior in adult zebrafish. Nature Methods, 2020, 17, 343-351. | 19.0 | 53 |
| 44 | The Genetic Basis of Morphological Diversity in Domesticated Goldfish. Current Biology, 2020, 30, 2260-2274.e6. | 3.9 | 52 |
| 45 | Mutant KCNJ3 and KCNJ5 Potassium Channels as Novel Molecular Targets in Bradyarrhythmias and Atrial Fibrillation. Circulation, 2019, 139, 2157-2169. | 1.6 | 51 |
| 46 | A bidirectional network for appetite control in larval zebrafish. ELife, 2019, 8, . | 6.0 | 50 |
| 47 | Excision of the Tol2 transposable element of the medaka fish Oryzias latipes in Xenopus laevis and Xenopus tropicalis. Gene, 2004, 338, 93-98. | 2.2 | 49 |
| 48 | Deubiquitinating enzymes regulate Hes1 stability and neuronal differentiation. FEBS Journal, 2015, 282, 2411-2423. | 4.7 | 47 |
| 49 | Transcriptional regulation of a myeloid-lineage specific gene lysozyme C during zebrafish myelopoiesis. Mechanisms of Development, 2009, 126, 314-323. | 1.7 | 45 |
| 50 | Cellular dynamics of regeneration reveals role of two distinct Pax7 stem cell populations in larval zebrafish muscle repair. DMM Disease Models and Mechanisms, 2016, 9, 671-84. | 2.4 | 45 |
| 51 | Chromatin-prebound Crm1 recruits Nup98-HoxA9 fusion to induce aberrant expression of Hox cluster genes. ELife, 2016, 5, e09540. | 6.0 | 45 |
| 52 | Proteasome subunit PSMC3 variants cause neurosensory syndrome combining deafness and cataract due to proteotoxic stress. EMBO Molecular Medicine, 2020, 12, e11861. | 6.9 | 43 |
| 53 | High-resolution live imaging reveals axon-glia interactions during peripheral nerve injury and repair in zebrafish. DMM Disease Models and Mechanisms, 2015, 8, 553-564. | 2.4 | 41 |
| 54 | A Novel Zebrafish ret Heterozygous Model of Hirschsprung Disease Identifies a Functional Role for mapk10 as a Modifier of Enteric Nervous System Phenotype Severity. PLoS Genetics, 2016, 12, e1006439. | 3.5 | 40 |

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|---|---|---|---|
| 55 | Neural circuitry for stimulus selection in the zebrafish visual system. Neuron, 2021, 109, 805-822.e6. | 8.1 | 40 |
| 56 | Diversification of non-visual photopigment parapinopsin in spectral sensitivity for diverse pineal functions. BMC Biology, 2015, 13, 73. | 3.8 | 38 |
| 57 | Transposition of the Tol2 Element, an Ac-Like Element From the Japanese Medaka Fish Oryzias latipes, in Mouse Embryonic Stem Cells. Genetics, 2004, 166, 895-899. | 2.9 | 38 |
| 58 | Different combinations of Notch ligands and receptors regulate V2 interneuron progenitor proliferation and V2a/V2b cell fate determination. Developmental Biology, 2014, 391, 196-206. | 2.0 | 37 |
| 59 | Development of the lateral line canal system through a bone remodeling process in zebrafish. Developmental Biology, 2014, 392, 1-14. | 2.0 | 36 |
| 60 | Cellular dissection of the spinal cord motor column by BAC transgenesis and gene trapping in zebrafish. Frontiers in Neural Circuits, 2013, 7, 100. | 2.8 | 32 |
| 61 | Granule cells control recovery from classical conditioned fear responses in the zebrafish cerebellum. Scientific Reports, 2017, 7, 11865. | 3.3 | 30 |
| 62 | Deletion of a kinesin I motor unmasks a mechanism of homeostatic branching control by neurotrophin-3. ELife, 2015, 4, . | 6.0 | 30 |
| 63 | Imaging functional neural circuits in zebrafish with a new GCaMP and the Gal4FF-UAS system. Communicative and Integrative Biology, 2011, 4, 566-568. | 1.4 | 29 |
| 64 | A novel zebrafish intestinal tumor model reveals a role for cyp7a1-dependent tumor-liver crosstalk in tumor's adverse effects on host. DMM Disease Models and Mechanisms, 2018, 11, . | 2.4 | 29 |
| 65 | Six6 and Six7 coordinately regulate expression of middle-wavelength opsins in zebrafish. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4651-4660. | 7.1 | 29 |
| 66 | Stereotyped initiation of retinal waves by bipolar cells via presynaptic NMDA autoreceptors. Nature Communications, 2016, 7, 12650. | 12.8 | 28 |
| 67 | A transgenic zebrafish for monitoring in vivo microtubule structures. Developmental Dynamics, 2010, 239, 2695-2699. | 1.8 | 27 |
| 68 | Proteolysis regulates cardiomyocyte maturation and tissue integration. Nature Communications, 2017, 8, 14495. | 12.8 | 27 |
| 69 | Involvement of Androgen Receptor in Sex Determination in an Amphibian Species. PLoS ONE, 2014, 9, e93655. | 2.5 | 27 |
| 70 | Non-thalamic origin of zebrafish sensory nuclei implies convergent evolution of visual pathways in amniotes and teleosts. ELife, 2020, 9, . | 6.0 | 27 |
| 71 | A tRNA-based multiplex sgRNA expression system in zebrafish and its application to generation of transgenic albino fish. Scientific Reports, 2018, 8, 13366. | 3.3 | 26 |
| 72 | Imaging functional neural circuits in zebrafish with a new GCaMP and the Gal4FF-UAS system. Communicative and Integrative Biology, 2011, 4, 566-8. | 1.4 | 24 |

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|---|---|---|---|
| 73 | Protocadherin-Mediated Cell Repulsion Controls the Central Topography and Efferent Projections of the Abducens Nucleus. Cell Reports, 2018, 24, 1562-1572. | 6.4 | 23 |
| 74 | RING finger protein 121 facilitates the degradation and membrane localization of voltage-gated sodium channels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2859-2864. | 7.1 | 22 |
| 75 | Wilms Tumor 1b defines a wound-specific sheath cell subpopulation associated with notochord repair. ELife, 2018, 7, . | 6.0 | 21 |
| 76 | Neuromuscular regulation in zebrafish by a large AAA+ ATPase/ubiquitin ligase, mysterin/RNF213. Scientific Reports, 2015, 5, 16161. | 3.3 | 20 |
| 77 | Neuregulin 1 Type II-ErbB Signaling Promotes Cell Divisions Generating Neurons from Neural Progenitor Cells in the Developing Zebrafish Brain. PLoS ONE, 2015, 10, e0127360. | 2.5 | 20 |
| 78 | A new mode of pancreatic islet innervation revealed by live imaging in zebrafish. ELife, 2018, 7, . | 6.0 | 20 |
| 79 | Neuronal Circuits That Control Rhythmic Pectoral Fin Movements in Zebrafish. Journal of Neuroscience, 2020, 40, 6678-6690. | 3.6 | 18 |
| 80 | Reactivation of Notch signaling is required for cardiac valve regeneration. Scientific Reports, 2019, 9, 16059. | 3.3 | 17 |
| 81 | Analysis of Genes and Genome by the Tol2-Mediated Gene and Enhancer Trap Methods. Methods in Molecular Biology, 2009, 546, 85-102. | 0.9 | 16 |
| 82 | Structure/Function Studies of the Î±4 Subunit Reveal Evolutionary Loss of a GlyR Subtype Involved in Startle and Escape Responses. Frontiers in Molecular Neuroscience, 2018, 11, 23. | 2.9 | 16 |
| 83 | KCNJ8/ABCC9-containing K-ATP channel modulates brain vascular smooth muscle development and neurovascular coupling. Developmental Cell, 2022, 57, 1383-1399.e7. | 7.0 | 16 |
| 84 | Stable, conditional, and muscleâ€fiberâ€specific expression of electroporated transgenes in chick limb muscle cells. Developmental Dynamics, 2011, 240, 1223-1232. | 1.8 | 14 |
| 85 | Calcium Imaging of Neuronal Activity in Free-Swimming Larval Zebrafish. Methods in Molecular Biology, 2016, 1451, 333-341. | 0.9 | 14 |
| 86 | Gastrointestinal Neurons Expressing HCN4 Regulate Retrograde Peristalsis. Cell Reports, 2020, 30, 2879-2888.e3. | 6.4 | 14 |
| 87 | Pyramidal Neurons of the Zebrafish Tectum Receive Highly Convergent Input From Torus Longitudinalis. Frontiers in Neuroanatomy, 2021, 15, 636683. | 1.7 | 14 |
| 88 | Analysis of transcription factors expressed at the anterior mouse limb bud. PLoS ONE, 2017, 12, e0175673. | 2.5 | 13 |
| 89 | An mnr2b/hlxb9lb enhancer trap line that labels spinal and abducens motor neurons in zebrafish. Developmental Dynamics, 2012, 241, 327-332. | 1.8 | 12 |
| 90 | Visualization of Neuregulin 1 ectodomain shedding reveals its local processing in vitro and in vivo. Scientific Reports, 2016, 6, 28873. | 3.3 | 12 |

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|---|---|---|---|
| 91 | Stable and bicistronic expression of two genes in somite- and lateral plate-derived tissues to study chick limb development. BMC Developmental Biology, 2015, 15, 39. | 2.1 | 11 |
| 92 | Zebrafish can regenerate endoskeleton in larval pectoral fin but the regenerative ability declines. Developmental Biology, 2020, 463, 110-123. | 2.0 | 11 |
| 93 | Innervation modulates the functional connectivity between pancreatic endocrine cells. ELife, 2022, 11, . | 6.0 | 11 |
| 94 | Gsx2 is required for specification of neurons in the inferior olivary nuclei from Ptf1a-expressing neural progenitors in zebrafish. Development (Cambridge), 2020, 147, . | 2.5 | 9 |
| 95 | Involvement of Cerebellar Neural Circuits in Active Avoidance Conditioning in Zebrafish. ENeuro, 2021, 8, ENEURO.0507-20.2021. | 1.9 | 8 |
| 96 | Pattern of fin rays along the antero-posterior axis based on their connection to distal radials. Zoological Letters, 2019, 5, 30. | 1.3 | 7 |
| 97 | Development of the anterior lateral line system through local tissueâ€tissue interactions in the zebrafish head. Developmental Dynamics, 2020, 249, 1440-1454. | 1.8 | 7 |
| 98 | A novel gene trap line for visualization and manipulation of erbb3b+ neural crest and glial cells in zebrafish. Developmental Biology, 2022, 482, 114-123. | 2.0 | 7 |
| 99 | BAC transgenic zebrafish reveal hypothalamic enhancer activity around obesity associated SNP rs9939609 within the human FTO gene. Genesis, 2015, 53, 640-651. | 1.6 | 6 |
| 100 | Ablation of a Neuronal Population Using a Two-photon Laser and Its Assessment Using Calcium Imaging and Behavioral Recording in Zebrafish Larvae. Journal of Visualized Experiments, 2018, , . | 0.3 | 6 |
| 101 | Shootins mediate collective cell migration and organogenesis of the zebrafish posterior lateral line system. Scientific Reports, 2019, 9, 12156. | 3.3 | 6 |
| 102 | Transient and lineage-restricted requirement of Ebf3 for sternum ossification. Development (Cambridge), 2020, 147, . | 2.5 | 6 |
| 103 | Multi-phaseted problems of TDP-43 in selective neuronal vulnerability in ALS. Cellular and Molecular Life Sciences, 2021, 78, 4453-4465. | 5.4 | 6 |
| 104 | Haploinsufficiency of PRR12 causes a spectrum of neurodevelopmental, eye, and multisystem abnormalities. Genetics in Medicine, 2021, 23, 1234-1245. | 2.4 | 6 |
| 105 | Chondroitin sulfate proteoglycan 4 regulates zebrafish body axis organization via Wnt/planar cell polarity pathway. PLoS ONE, 2020, 15, e0230943. | 2.5 | 5 |
| 106 | Illuminating ALS Motor Neurons With Optogenetics in Zebrafish. Frontiers in Cell and Developmental Biology, 2021, 9, 640414. | 3.7 | 5 |
| 107 | Muscle defects due to perturbed somite segmentation contribute to late adult scoliosis. Aging, 2020, 12, 18603-18621. | 3.1 | 5 |
| 108 | Zebrafish lines expressing UASâ€driven red probes for monitoring cytoskeletal dynamics. Genesis, 2016, 54, 483-489. | 1.6 | 4 |

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|---|---|---|---|
| 109 | Enteric nervous system can regenerate in zebrafish larva via migration into the ablated area and proliferation of neural crest-derived cells. Development (Cambridge), 2021, 148, . | 2.5 | 4 |
| 110 | Integrated Behavioral, Genetic and Brain Circuit Visualization Methods to Unravel Functional Anatomy of Zebrafish Amygdala. Frontiers in Neuroanatomy, 2022, 16, . | 1.7 | 4 |
| 111 | Electrophysiological and pharmacological characterization of spreading depolarization in the adult zebrafish tectum. Journal of Neurophysiology, 2021, 126, 1934-1942. | 1.8 | 2 |
| 112 | Fluorescence-Activated Cell Sorting and Gene Expression Profiling of GFP-Positive Cells from Transgenic Zebrafish Lines. Methods in Molecular Biology, 2016, 1451, 93-106. | 0.9 | 1 |
| 113 | The First International Zebrafish Conference/Workshop in Qatar. Zebrafish, 2019, 16, 493-495. | 1.1 | 1 |
| 114 | Developmental independence of median fins from the larval fin fold revises their evolutionary origin. Scientific Reports, 2022, 12, 7521. | 3.3 | 1 |
| 115 | Preface to Vertebrate Brains: evolution, structures and functions. Development Growth and Differentiation, 2017, 59, 160-162. | 1.5 | 0 |
| 116 | Do not curse the darkness of the spinal cord, light TDP-43. Neural Regeneration Research, 2021, 16, 986. | 3.0 | 0 |
| 117 | Functional validation of human pigmentation SNPs in zebrafish. FASEB Journal, 2012, 26, 774.2. | 0.5 | 0 |
| 118 | Erratum. Methods in Molecular Biology, 2016, 1451, E1-E1. | 0.9 | 0 |
| 119 | Optogenetic Phase Transition of TDP-43 in Spinal Motor Neurons of Zebrafish Larvae. Journal of Visualized Experiments, 2022, , . | 0.3 | 0 |