Hiroshi Hamada

List of Publications by Year
in descending order

138 papers	15,184 citations	19657 61 h-index	18130 120 g-index
157 all docs	157 docs citations	157 times ranked	11309 citing authors

#	Article	IF	Citations
1	Retinoid Signaling Determines Germ Cell Fate in Mice. Science, 2006, 312, 596-600.	12.6	888
2	A novel octamer binding transcription factor is differentially expressed in mouse embryonic cells. Cell, 1990, 60, 461-472.	28.9	714
3	Determination of leftâ€"right patterning of the mouse embryo by artificial nodal flow. Nature, 2002, 418, 96-99.	27.8	596
4	lefty-1 Is Required for Left-Right Determination as a Regulator of lefty-2 and nodal. Cell, 1998, 94, 287-297.	28.9	507
5	Establishment of vertebrate leftâ€"right asymmetry. Nature Reviews Genetics, 2002, 3, 103-113.	16.3	496
6	An Nkx2-5/Bmp2/Smad1 Negative Feedback Loop Controls Heart Progenitor Specification and Proliferation. Cell, 2007, 128, 947-959.	28.9	470
7	Leftâ€"right asymmetric expression of the TGFÎ²-family member lefty in mouse embryos. Nature, 1996, 381, 151-155.	27.8	440
8	Abnormal Nodal Flow Precedes Situs Inversus in iv and inv mice. Molecular Cell, 1999, 4, 459-468.	9.7	402
9	The retinoic acid-inactivating enzyme CYP26 is essential for establishing an uneven distribution of retinoic acid along the anterio-posterior axis within the mouse embryo. Genes and Development, 2001, 15, 213-225.	5.9	397
10	Pitx2, a Bicoid-Type Homeobox Gene, Is Involved in a Lefty-Signaling Pathway in Determination of Left-Right Asymmetry. Cell, 1998, 94, 299-305.	28.9	364
11	Mouse Lefty2 and Zebrafish Antivin Are Feedback Inhibitors of Nodal Signaling during Vertebrate Gastrulation. Molecular Cell, 1999, 4, 287-298.	9.7	348
12	Nodal Antagonists in the Anterior Visceral Endoderm Prevent the Formation of Multiple Primitive Streaks. Developmental Cell, 2002, 3, 745-756.	7.0	330
13	Potential Z-DNA forming sequences are highly dispersed in the human genome. Nature, 1982, 298, 396-398.	27.8	326
14	Regulation of Retinoic Acid Distribution Is Required for Proximodistal Patterning and Outgrowth of the Developing Mouse Limb. Developmental Cell, 2004, 6, 411-422.	7.0	285
15	De Novo Formation of Leftâ€"Right Asymmetry by Posterior Tilt of Nodal Cilia. PLoS Biology, 2005, 3, e268.	5.6	273
16	The left-right axis in the mouse: from origin to morphology. Development (Cambridge), 2006, 133, 2095-2104.	2.5	268
17	Cilia at the Node of Mouse Embryos Sense Fluid Flow for Left-Right Determination via Pkd2. Science, 2012, 338, 226-231.	12.6	262
18	Interplay of SOX and POU Factors in Regulation of the Nestin Gene in Neural Primordial Cells. Molecular and Cellular Biology, 2004, 24, 8834-8846.	2.3	257

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19	Nodal antagonists regulate formation of the anteroposterior axis of the mouse embryo. Nature, 2004, 428, 387-392.	27.8	256
20	Cloning of inv, a gene that controls left/right asymmetry and kidney development. Nature, 1998, 395, 177-181.	27.8	255
21	Two closelyâ€related leftâ€right asymmetrically expressed genes, <i>leftyâ€1</i> and <i>leftyâ€2</i>: their distinct expression domains, chromosomal linkage and direct neuralizing activity in <i>Xenopus</i> embryos. Genes To Cells, 1997, 2, 513-524.	1.2	246
22	Leftâ€"Right Asymmetric Expression of lefty2 and nodal Is Induced by a Signaling Pathway that Includes the Transcription Factor FAST2. Molecular Cell, 2000, 5, 35-47.	9.7	219
23	Haemodynamics determined by a genetic programme govern asymmetric development of the aortic arch. Nature, 2007, 450, 285-288.	27.8	208
24	Notch signaling regulates left-right asymmetry determination by inducing Nodal expression. Genes and Development, 2003, 17, 1207-1212.	5.9	207
25	Two-Step Regulation of Leftâ€"Right Asymmetric Expression of Pitx2. Molecular Cell, 2001, 7, 137-149.	9.7	203
26	The transcription factor FoxH1 (FAST) mediates Nodal signaling during anterior-posterior patterning and node formation in the mouse. Genes and Development, 2001, 15, 1242-1256.	5.9	199
27	Planar polarization of node cells determines the rotational axis of node cilia. Nature Cell Biology, 2010, 12, 170-176.	10.3	190
28	Coordinated Ciliary Beating Requires Odf2-Mediated Polarization of Basal Bodies via Basal Feet. Cell, 2012, 148, 189-200.	28.9	189
29	Generation of Robust Left-Right Asymmetry in the Mouse Embryo Requires a Self-Enhancement and Lateral-Inhibition System. Developmental Cell, 2006, 11, 495-504.	7.0	184
30	Inhibition of Nodal signalling by Lefty mediated through interaction with common receptors and efficient diffusion. Genes To Cells, 2002, 7, 401-412.	1.2	181
31	The left-right determinant Inversin is a component of node monocilia and other 9+0 cilia. Development (Cambridge), 2003, 130, 1725-1734.	2.5	176
32	Cell fate decisions and axis determination in the early mouse embryo. Development (Cambridge), 2012, 139, 3-14.	2.5	157
33	Comparison of Gene Expression in Male and Female Mouse Blastocysts Revealed Imprinting of the X-Linked Gene, Rhox5/Pem, at Preimplantation Stages. Current Biology, 2006, 16, 166-172.	3.9	137
34	Two rotating cilia in the node cavity are sufficient to break leftâ€"right symmetry in the mouse embryo. Nature Communications, 2012, 3, 622.	12.8	127
35	Leftâ€"right patterning of the mouse lateral plate requires nodal produced in the node. Developmental Biology, 2003, 256, 161-173.	2.0	123
36	Left-right patterning: conserved and divergent mechanisms. Development (Cambridge), 2012, 139, 3257-3262.	2.5	118

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37	GFRÎ±3, a Component of the Artemin Receptor, Is Required for Migration and Survival of the Superior Cervical Ganglion. Neuron, 1999, 23, 725-736.	8.1	117
38	Diffusion of Nodal Signaling Activity in the Absence of the Feedback Inhibitor Lefty2. Developmental Cell, 2001, 1, 127-138.	7.0	116
39	EpCAM contributes to formation of functional tight junction in the intestinal epithelium by recruiting claudin proteins. Developmental Biology, 2012, 371, 136-145.	2.0	115
40	The Mouse Embryo Autonomously Acquires Anterior-Posterior Polarity at Implantation. Developmental Cell, 2006, 10, 451-459.	7.0	112
41	Overall Architecture of the Intraflagellar Transport (IFT)-B Complex Containing Cluap1/IFT38 as an Essential Component of the IFT-B Peripheral Subcomplex. Journal of Biological Chemistry, 2016, 291, 10962-10975.	3.4	111
42	Roles of cilia, fluid flow, and Ca2+ signaling in breaking of leftâ€“right symmetry. Trends in Genetics, 2014, 30, 10-17.	6.7	109
43	Baf60c is a nuclear Notch signaling component required for the establishment of leftâ€“right asymmetry. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 846-851.	7.1	108
44	Variations in expression of mutant Î² actin accompanying incremental increases in human fibroblast tumorigenicity. Cell, 1982, 28, 259-268.	28.9	100
45	Meteorin: a secreted protein that regulates glial cell differentiation and promotes axonal extension. EMBO Journal, 2004, 23, 1998-2008.	7.8	100
46	Origin and role of distal visceral endoderm, a group of cells that determines anteriorâ€“posterior polarity of the mouse embryo. Nature Cell Biology, 2011, 13, 743-752.	10.3	99
47	Long-range action of Nodal requires interaction with GDF1. Genes and Development, 2007, 21, 3272-3282.	5.9	98
48	Localization of Inv in a distinctive intraciliary compartment requires the C-terminal ninein-homolog-containing region. Journal of Cell Science, 2009, 122, 44-54.	2.0	98
49	Nodal signaling induces the midline barrier by activating Nodalexpression in the lateral plate. Development (Cambridge), 2003, 130, 1795-1804.	2.5	93
50	Leftâ€“right asymmetry in the level of active Nodal protein produced in the node is translated into leftâ€“right asymmetry in the lateral plate of mouse embryos. Developmental Biology, 2011, 353, 321-330.	2.0	91
51	Conserved regulation and role of Pitx2 in situs-specific morphogenesis of visceral organs. Development (Cambridge), 2006, 133, 3015-3025.	2.5	90
52	SHH propagates distal limb bud development by enhancing CYP26B1-mediated retinoic acid clearance via AER-FGF signalling. Development (Cambridge), 2011, 138, 1913-1923.	2.5	90
53	TTC25 Deficiency Results in Defects of the Outer Dynein Arm Docking Machinery and Primary Ciliary Dyskinesia with Left-Right Body Asymmetry Randomization. American Journal of Human Genetics, 2016, 99, 460-469.	6.2	88
54	Roles ofnodal-leftyregulatory loops in embryonic patterning of vertebrates. Genes To Cells, 2001, 6, 923-930.	1.2	86

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55	Fluid flow and interlinked feedback loops establish leftâ€“right asymmetric decay of Cerl2 mRNA. Nature Communications, 2012, 3, 1322.	12.8	82
56	Situs inversus and ciliary abnormalities: 20Âyears later, what is the connection?. Cilia, 2015, 4, 1.	1.8	81
57	Antagonism between Smad1 and Smad2 signaling determines the site of distal visceral endoderm formation in the mouse embryo. Journal of Cell Biology, 2009, 184, 323-334.	5.2	80
58	A Wnt5 Activity Asymmetry and Intercellular Signaling via PCP Proteins Polarize Node Cells for Left-Right Symmetry Breaking. Developmental Cell, 2017, 40, 439-452.e4.	7.0	79
59	A CNS-specific POU transcription factor, Brn-2, is required for establishing mammalian neural cell lineages. Neuron, 1993, 11, 1197-1206.	8.1	78
60	Sulfated glycosaminoglycans are necessary for Nodal signal transmission from the node to the left lateral plate in the mouse embryo. Development (Cambridge), 2007, 134, 3893-3904.	2.5	77
61	Dysregulation of the PDGFRA gene causes inflow tract anomalies including TAPVR: integrating evidence from human genetics and model organisms. Human Molecular Genetics, 2010, 19, 1286-1301.	2.9	64
62	Absence of Radial Spokes in Mouse Node Cilia Is Required for Rotational Movement but Confers Ultrastructural Instability as a Trade-Off. Developmental Cell, 2015, 35, 236-246.	7.0	62
63	Nodal/activin signaling promotes male germ cell fate and suppresses female programming in somatic cells. Development (Cambridge), 2013, 140, 291-300.	2.5	60
64	Cilia in Leftâ€“Right Symmetry Breaking. Cold Spring Harbor Perspectives in Biology, 2017, 9, a028282.	5.5	60
65	TGFÎ² signaling in establishing leftâ€“right asymmetry. Seminars in Cell and Developmental Biology, 2014, 32, 80-84.	5.0	55
66	Removal of maternal retinoic acid by embryonic CYP26 is required for correct Nodal expression during early embryonic patterning. Genes and Development, 2009, 23, 1689-1698.	5.9	54
67	Loss of Cited2 causes congenital heart disease by perturbing leftâ€“right patterning of the body axis. Human Molecular Genetics, 2011, 20, 1097-1110.	2.9	54
68	Identification of putative downstream genes of Oct-3, a pluripotent cell-specific transcription factor. Genes To Cells, 1996, 1, 239-252.	1.2	53
69	CYP26A1 and CYP26C1 cooperate in degrading retinoic acid within the equatorial retina during later eye development. Developmental Biology, 2004, 276, 143-157.	2.0	53
70	Spatial Restriction of Bone Morphogenetic Protein Signaling in Mouse Gastrula through the mVam2-Dependent Endocytic Pathway. Developmental Cell, 2012, 22, 1163-1175.	7.0	53
71	Pih1d3 is required for cytoplasmic preassembly of axonemal dynein in mouse sperm. Journal of Cell Biology, 2014, 204, 203-213.	5.2	51
72	Genetic Analysis Reveals a Hierarchy of Interactions between Polycystin-Encoding Genes and Genes Controlling Cilia Function during Left-Right Determination. PLoS Genetics, 2016, 12, e1006070.	3.5	51

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73	Predominant expression of Brn-2 in the postmitotic neurons of the developing mouse neocortex. Brain Research, 1997, 752, 261-268.	2.2	44
74	Distinct transcriptional regulation and phylogenetic divergence of humanLEFTYgenes. Genes To Cells, 2000, 5, 343-357.	1.2	43
75	Stringent integrity requirements for bothtrans-activation and DNA-binding in atrans-activator, Oct3. Nucleic Acids Research, 1991, 19, 4503-4508.	14.5	40
76	Mechanisms of left-right asymmetry and patterning: driver, mediator and responder. F1000prime Reports, 2014, 6, 110.	5.9	38
77	Asymmetric expression of antivin/lefty1 in the early chick embryo. Mechanisms of Development, 2000, 90, 115-118.	1.7	37
78	Translation of anteriorâ€"posterior polarity into leftâ€"right polarity in the mouse embryo. Current Opinion in Genetics and Development, 2010, 20, 433-437.	3.3	37
79	Increased retinoic acid levels through ablation of Cyp26b1 determine the processes of embryonic skin barrier formation and peridermal development. Journal of Cell Science, 2012, 125, 1827-36.	2.0	36
80	A GPI processing phospholipase A2, PGAP6, modulates Nodal signaling in embryos by shedding CRIPTO. Journal of Cell Biology, 2016, 215, 705-718.	5.2	36
81	CFAP45 deficiency causes situs abnormalities and asthenospermia by disrupting an axonemal adenine nucleotide homeostasis module. Nature Communications, 2020, 11, 5520.	12.8	36
82	Origin of body axes in the mouse embryo. Current Opinion in Genetics and Development, 2007, 17, 344-350.	3.3	35
83	Reversal of left-right asymmetry induced by aberrant Nodal signaling in the node of mouse embryos. Development (Cambridge), 2009, 136, 3917-3925.	2.5	35
84	Cluap1 localizes preferentially to the base and tip of cilia and is required for ciliogenesis in the mouse embryo. Developmental Biology, 2013, 381, 203-212.	2.0	35
85	Preferential Differentiation of P19 Mouse Embryonal Carcinoma Cells Into Smooth Muscle Cells. Circulation Research, 1996, 78, 395-404.	4.5	34
86	Molecular and cellular basis of leftâ€"right asymmetry in vertebrates. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2020, 96, 273-296.	3.8	34
87	Two nodal-responsive enhancers control left-right asymmetric expression ofNodal. Developmental Dynamics, 2005, 232, 1031-1036.	1.8	32
88	Characterization of <i>Pitx2c</i> expression in the mouse heart using a reporter transgene. Developmental Dynamics, 2011, 240, 195-203.	1.8	32
89	<scp>RBM</scp> 14 prevents assembly of centriolar protein complexes and maintains mitotic spindle integrity. EMBO Journal, 2015, 34, 97-114.	7.8	32
90	Transport of the outer dynein arm complex to cilia requires a cytoplasmic protein Lrrc6. Genes To Cells, 2016, 21, 728-739.	1.2	32

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91	In vitro synthesis of a 5S RNA precursor by isolated nuclei of rat liver and HeLa cells. Cell, 1979, 17, 163-173.	28.9	31
92	Single-Cell Expression Profiling Reveals a Dynamic State of Cardiac Precursor Cells in the Early Mouse Embryo. PLoS ONE, 2015, 10, e0140831.	2.5	31
93	Loss of PYCR2 Causes Neurodegeneration by Increasing Cerebral Glycine Levels via SHMT2. Neuron, 2020, 107, 82-94.e6.	8.1	30
94	Role of physical forces in embryonic development. Seminars in Cell and Developmental Biology, 2015, 47-48, 88-91.	5.0	29
95	Role of Ca ²⁺ transients at the node of the mouse embryo in breaking of left-right symmetry. Science Advances, 2020, 6, eaba1195.	10.3	29
96	Fluid flow-induced left-right asymmetric decay of Dand5 mRNA in the mouse embryo requires a Bicc1-Ccr4 RNA degradation complex. Nature Communications, 2021, 12, 4071.	12.8	28
97	Diversity of left-right symmetry breaking strategy in animals. F1000Research, 2020, 9, 123.	1.6	28
98	The Dynamic Right-to-Left Translocation of Cerl2 Is Involved in the Regulation and Termination of Nodal Activity in the Mouse Node. PLoS ONE, 2013, 8, e60406.	2.5	27
99	Bicc1 and Dicer regulate left-right patterning through post-transcriptional control of the Nodal inhibitor Dand5. Nature Communications, 2021, 12, 5482.	12.8	24
100	Breakthroughs and future challenges in leftâ€“right patterning. Development Growth and Differentiation, 2008, 50, S71-8.	1.5	23
101	Rsph4a is essential for the triplet radial spoke head assembly of the mouse motile cilia. PLoS Genetics, 2020, 16, e1008664.	3.5	22
102	Both Nodal signalling and stochasticity select for prospective distal visceral endoderm in mouse embryos. Nature Communications, 2017, 8, 1492.	12.8	21
103	Rab7-Mediated Endocytosis Establishes Patterning of Wnt Activity through Inactivation of Dkk Antagonism. Cell Reports, 2020, 31, 107733.	6.4	21
104	Nodal paralogues underlie distinct mechanisms for visceral leftâ€“right asymmetry in reptiles and mammals. Nature Ecology and Evolution, 2020, 4, 261-269.	7.8	20
105	Identification of a novel left-right asymmetrically expressed gene in the mouse belonging to the BPI/PLUNC superfamily. Developmental Dynamics, 2004, 229, 373-379.	1.8	18
106	CFAP53 regulates mammalian cilia-type motility patterns through differential localization and recruitment of axonemal dynein components. PLoS Genetics, 2020, 16, e1009232.	3.5	17
107	Role of asymmetric signals in left-right patterning in the mouse. American Journal of Medical Genetics Part A, 2001, 101, 324-327.	2.4	16
108	Epigenetic reprogramming of the humanH19gene in mouse embryonic cells does not erase the primary parental imprint. Genes To Cells, 1998, 3, 245-255.	1.2	15

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109	Retinoic Acid Signaling Regulates Sonic Hedgehog and Bone Morphogenetic Protein Signalings During Genital Tubercle Development. Birth Defects Research Part B: Developmental and Reproductive Toxicology, 2012, 95, 79-88.	1.4	14
110	In Search of Turing InÂVivo: Understanding Nodal and Lefty Behavior. Developmental Cell, 2012, 22, 911-912.	7.0	12
111	Hydrodynamic Phase Locking in Mouse Node Cilia. Physical Review Letters, 2013, 110, 248107.	7.8	12
112	Simulation of the nodal flow of mutant embryos with a small number of cilia: comparison of mechanosensing and vesicle transport hypotheses. Royal Society Open Science, 2018, 5, 180601.	2.4	12
113	Wnt signalling escapes to cilia. Nature Cell Biology, 2011, 13, 636-637.	10.3	11
114	Asymmetric rotational stroke in mouse node cilia during left-right determination. Physical Review E, 2013, 87, 050701.	2.1	11
115	Origin of cellular asymmetries in the pre-implantation mouse embryo: a hypothesis. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130536.	4.0	10
116	Loss of Fam60a, a Sin3a subunit, results in embryonic lethality and is associated with aberrant methylation at a subset of gene promoters. ELife, 2018, 7, .	6.0	9
117	Self-regulated left-right asymmetric expression of Pitx2c in the developing mouse limb. Developmental Biology, 2014, 395, 331-341.	2.0	8
118	<i>Tbx6</i>controls left-right asymmetry through regulation of<i>Gdf1</i>. Biology Open, 2018, 7, .	1.2	8
119	Deletion of the Dishevelled family of genes disrupts anterior-posterior axis specification and selectively prevents mesoderm differentiation. Developmental Biology, 2020, 464, 161-175.	2.0	8
120	Transcriptional regulatory region of Brn-2 required for its expression in developing olfactory epithelial cells. Developmental Brain Research, 1998, 109, 77-86.	1.7	4
121	Left-Right Asymmetry. , 2002, , 55-73.		4
122	Roles of Motile and Immotile Cilia in Left-Right Symmetry Breaking. , 2016, , 57-65.		4
123	The dynein-triggered ciliary motion in embryonic nodes: An exploratory study based on computational models. Bio-Medical Materials and Engineering, 2014, 24, 2495-2501.	0.6	3
124	Molecular Mechanisms of Leftâ€"Right Development. , 2010, , 297-306.		2
125	Hyaluronan Works on the Right for Directional Gut Looping. Developmental Cell, 2018, 46, 525-526.	7.0	2
126	Ciliogenesisâ€coupled accumulation of IFTâ€B proteins in a novel cytoplasmic compartment. Genes To Cells, 2019, 24, 731-745.	1.2	2

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127	Planar cell polarity-dependent asymmetric organization of microtubules for polarized positioning of the basal body in node cells. Development (Cambridge), 2022, 149, .	2.5	2
128	The Protein-Driven Ciliary Motility in Embryonic Nodes: A Computational Model of Ciliary Ultrastructure. , 2013, , .		0
129	The Motion of An Inv Nodal Cilium: a Realistic Model Revealing Dynein-Driven Ciliary Motion with Microtubule Mislocalization. Cellular Physiology and Biochemistry, 2018, 51, 2843-2857.	1.6	0
130	Visualization of nodal flow that determines left-right asymmetry in the mouse embryo. Journal of the Visualization Society of Japan, 2013, 33, 24-27.	0.0	0
131	Rsph4a is essential for the triplet radial spoke head assembly of the mouse motile cilia. , 2020, 16, e1008664.		0
132	Rsph4a is essential for the triplet radial spoke head assembly of the mouse motile cilia. , 2020, 16, e1008664.		0
133	Rsph4a is essential for the triplet radial spoke head assembly of the mouse motile cilia. , 2020, 16, e1008664.		0
134	Rsph4a is essential for the triplet radial spoke head assembly of the mouse motile cilia. , 2020, 16, e1008664.		0
135	Title is missing!. , 2020, 16, e1009232.		0
136	Title is missing!. , 2020, 16, e1009232.		0
137	Title is missing!. , 2020, 16, e1009232.		0
138	Title is missing!. , 2020, 16, e1009232.		0