Nicholas D Holland

List of Publications by Year in Descending Order

120 papers	4,452 citations	40 h-index	62 g-index
123 ext. papers	4,849 ext. citations	4.6 avg, IF	5.49 L-index

#	Paper	IF	Citations
120	The invertebrate chordate amphioxus gives clues to vertebrate origins.. *Current Topics in Developmental Biology*, **2022**, 147, 563-594	5.3	1
119	Hunting needles in a haystack: Migrating precursors of epidermal sensory neurons in amphioxus found with serial blockface scanning electron microscopy (SBSEM). *Acta Zoologica*, **2021**, 102, 165-170	0.8	1
118	Tail regeneration in a cephalochordate, the Bahamas lancelet, Asymmetron lucayanum. *Journal of Morphology*, **2021**, 282, 217-229	1.6	1
117	Vincenzo Colucci's 1886 memoir, Intorno alla rigenerazione degli arti e della coda nei tritoni, annotated and translated into English as: Concerning regeneration of the limbs and tail in salamanders **2021**, 88, 837-890		
116	Cephalochordates: A window into vertebrate origins. *Current Topics in Developmental Biology*, **2021**, 141, 119-147	5.3	4
115	The sensory peripheral nervous system in the tail of a cephalochordate studied by serial blockface scanning electron microscopy. *Journal of Comparative Neurology*, **2020**, 528, 2569-2582	3.4	5
114	Serial blockface SEM suggests that stem cells may participate in adult notochord growth in an invertebrate chordate, the Bahamas lancelet. *EvoDevo*, **2020**, 11, 22	3.2	5
113	Digestive system in regular sea urchins. *Developments in Aquaculture and Fisheries Science*, **2020**, 43, 147-163	1.1	2
112	Formation of the initial kidney and mouth opening in larval amphioxus studied with serial blockface scanning electron microscopy (SBSEM). *EvoDevo*, **2018**, 9, 16	3.2	13
111	Ran GTPase, an eukaryotic gene novelty, is involved in amphioxus mitosis. *PLoS ONE*, **2018**, 13, e0196930	3.7	4
110	Conservation of BMP2/4 expression patterns within the clade Branchiostoma (amphioxus): Resolving interspecific discrepancies. *Gene Expression Patterns*, **2017**, 25-26, 71-75	1.5	2
109	The long and winding path to understanding kidney structure in amphioxus - a review. *International Journal of Developmental Biology*, **2017**, 61, 683-688	1.9	4
108	The ups and downs of amphioxus biology: a history. *International Journal of Developmental Biology*, **2017**, 61, 575-583	1.9	5
107	The evolution of genes encoding for green fluorescent proteins: insights from cephalochordates (amphioxus). *Scientific Reports*, **2016**, 6, 28350	4.9	4
106	Nervous systems and scenarios for the invertebrate-to-vertebrate transition. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2016**, 371, 20150047	5.8	12
105	Scenarios for the making of vertebrates. *Nature*, **2015**, 520, 450-5	50.4	34
104	Evolution of the notochord. *EvoDevo*, **2015**, 6, 30	3.2	29

103	Amphioxus tails: source and fate of larval fin rays and the metamorphic transition from an ectodermal to a predominantly mesodermal tail. *Acta Zoologica*, **2015**, 96, 117-125	0.8	5
102	Hybrids between the Florida amphioxus (Branchiostoma floridae) and the Bahamas lancelet (Asymmetron lucayanum): developmental morphology and chromosome counts. *Biological Bulletin*, **2015**, 228, 13-24	1.5	9
101	Development of somites and their derivatives in amphioxus, and implications for the evolution of vertebrate somites. *EvoDevo*, **2015**, 6, 21	3.2	18
100	Digestive System. *Developments in Aquaculture and Fisheries Science*, **2013**, 38, 119-133	1.1	6
99	Rediscovery and augmented description of the HMS Challenger acorn worm (Hemichordata, Enteropneusta), Glandiceps abyssicola, in the equatorial Atlantic abyss. *Journal of the Marine Biological Association of the United Kingdom*, **2013**, 93, 2197-2205	1.1	4
98	Pikaia gracilens Walcott: stem chordate, or already specialized in the Cambrian?. *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution*, **2013**, 320, 247-71	1.8	18
97	An externally brooding acorn worm (Hemichordata, Enteropneusta, Torquaratoridae) from the Russian arctic. *Biological Bulletin*, **2013**, 225, 113-23	1.5	8
96	Observations on torquaratorid acorn worms (Hemichordata, Enteropneusta) from the North Atlantic with descriptions of a new genus and three new species. *Invertebrate Biology*, **2012**, 131, 244-257	1	21
95	Diversification of acorn worms (Hemichordata, Enteropneusta) revealed in the deep sea. *Proceedings of the Royal Society B: Biological Sciences*, **2012**, 279, 1646-54	4.4	37
94	Morphology of a new deep-sea acorn worm (class Enteropneusta, phylum Hemichordata): a part-time demersal drifter with externalized ovaries. *Journal of Morphology*, **2012**, 273, 661-71	1.6	15
93	A new deep-sea species of harrimaniid enteropneust (Hemichordata). *Proceedings of the Biological Society of Washington*, **2012**, 125, 228-240	0.2	6
92	Tail regression induced by elevated retinoic acid signaling in amphioxus larvae occurs by tissue remodeling, not cell death. *Evolution & Development*, **2011**, 13, 427-35	2.6	8
91	Walter Garstang: a retrospective. *Theory in Biosciences*, **2011**, 130, 247-58	1.3	14
90	Retinoic acid signaling targets Hox genes during the amphioxus gastrula stage: insights into early anterior-posterior patterning of the chordate body plan. *Developmental Biology*, **2010**, 338, 98-106	3.1	44
89	Laboratory spawning and development of the Bahama lancelet, Asymmetron lucayanum (cephalochordata): fertilization through feeding larvae. *Biological Bulletin*, **2010**, 219, 132-41	1.5	25
88	Molecular identification of larvae of a tetraphyllidean tapeworm (Platyhelminthes: Eucestoda) in a razor clam as an alternative intermediate host in the life cycle of Acanthobothrium brevissime. *Journal of Parasitology*, **2009**, 95, 1215-7	0.9	13
87	Magnetic resonance imaging (MRI) has failed to distinguish between smaller gut regions and larger haemal sinuses in sea urchins (Echinodermata: Echinoidea). *BMC Biology*, **2009**, 7, 39; author reply 39	7.3	6
86	The Florida amphioxus (Cephalochordata) hosts larvae of the tapeworm Acanthobothrium brevissime: natural history, anatomy and taxonomic identification of the parasite. *Acta Zoologica*, **2009**, 90, 75-86	0.8	14

85	The club-shaped gland of amphioxus: export of secretion to the pharynx in pre-metamorphic larvae and apoptosis during metamorphosis. *Acta Zoologica*, **2009**, 90, 372-379	0.8	12
84	The origin and migration of the earliest-developing sensory neurons in the peripheral nervous system of amphioxus. *Evolution & Development*, **2009**, 11, 142-51	2.6	40
83	Evolution of genetic networks underlying the emergence of thymopoiesis in vertebrates. *Cell*, **2009** , 138, 186-97	56.2	149
82	Retinoic acid and Wnt/beta-catenin have complementary roles in anterior/posterior patterning embryos of the basal chordate amphioxus. *Developmental Biology*, **2009**, 332, 223-33	3.1	63
81	A new deep-sea species of epibenthic acorn worm (Hemichordata, Enteropneusta). *Zoosystema*, **2009**, 31, 333-346	0.7	18
80	Amphioxus and the evolution of head segmentation. *Integrative and Comparative Biology*, **2008**, 48, 630-648	4.6	39
79	Siphons and siphonal grooves in the digestive systems of the Echinoidea (Echinodermata). *Zoomorphology*, **2008**, 127, 259-264	1	3
78	Axial patterning in cephalochordates and the evolution of the organizer. *Nature*, **2007**, 445, 613-7	50.4	203
77	Hagfish embryos again: the end of a long drought. *BioEssays*, **2007**, 29, 833-6	4.1	9
76	Amphioxus AmphiDelta: evolution of Delta protein structure, segmentation, and neurogenesis. *Genesis*, **2007**, 45, 113-22	1.9	40
75	Insights into spawning behavior and development of the European amphioxus (Branchiostoma lanceolatum). *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution*, **2007**, 308, 484-93	1.8	85
74	A revised fate map for amphioxus and the evolution of axial patterning in chordates. *Integrative and Comparative Biology*, **2007**, 47, 360-72	2.8	31
73	Pax-Six-Eya-Dach network during amphioxus development: conservation in vitro but context specificity in vivo. *Developmental Biology*, **2007**, 306, 143-59	3.1	137
72	Expression of the AmphiTcf gene in amphioxus: insights into the evolution of the TCF/LEF gene family during vertebrate evolution. *Developmental Dynamics*, **2006**, 235, 3396-403	2.9	18
71	A Gbx homeobox gene in amphioxus: insights into ancestry of the ANTP class and evolution of the midbrain/hindbrain boundary. *Developmental Biology*, **2006**, 295, 40-51	3.1	73
70	A retinoic acid-Hox hierarchy controls both anterior/posterior patterning and neuronal specification in the developing central nervous system of the cephalochordate amphioxus. *Developmental Biology*, **2006**, 296, 190-202	3.1	107
69	An amphioxus LIM-homeobox gene, AmphiLim1/5, expressed early in the invaginating organizer region and later in differentiating cells of the kidney and central nervous system. *International Journal of Biological Sciences*, **2006**, 2, 110-6	11.2	24
68	The amphioxus T-box gene, AmphiTbx15/18/22, illuminates the origins of chordate segmentation. *Evolution & Development*, **2006**, 8, 119-29	2.6	17

67	Stage- and tissue-specific patterns of cell division in embryonic and larval tissues of amphioxus during normal development. *Evolution & Development*, **2006**, 8, 142-9	2.6	33
66	Enteropneust production of spiral fecal trails on the deep-sea floor observed with time-lapse photography. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2005**, 52, 1228-1240	2.5	31
65	Expression of estrogen-receptor related receptors in amphioxus and zebrafish: implications for the evolution of posterior brain segmentation at the invertebrate-to-vertebrate transition. *Evolution & Development*, **2005**, 7, 223-33	2.6	57
64	'Lophenteropneust' hypothesis refuted by collection and photos of new deep-sea hemichordates. *Nature*, **2005**, 434, 374-6	50.4	49
63	Chordates. *Current Biology*, **2005**, 15, R911-4	6.3	3
62	Nuclear beta-catenin promotes non-neural ectoderm and posterior cell fates in amphioxus embryos. *Developmental Dynamics*, **2005**, 233, 1430-43	2.9	44
61	Amphioxus molecular biology: insights into vertebrate evolution and developmental mechanisms. *Canadian Journal of Zoology*, **2005**, 83, 90-100	1.5	40
60	Retinoic acid signaling acts via Hox1 to establish the posterior limit of the pharynx in the chordate amphioxus. *Development (Cambridge)*, **2005**, 132, 61-73	6.6	78
59	Retinoic acid influences anteroposterior positioning of epidermal sensory neurons and their gene expression in a developing chordate (amphioxus). *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 10320-5	11.5	71
58	Expression of AmphiCoe, an amphioxus COE/EBF gene, in the developing central nervous system and epidermal sensory neurons. *Genesis*, **2004**, 38, 58-65	1.9	53
57	Differential mesodermal expression of two amphioxus MyoD family members (AmphiMRF1 and AmphiMRF2). *Gene Expression Patterns*, **2003**, 3, 199-202	1.5	34
56	Early central nervous system evolution: an era of skin brains?. *Nature Reviews Neuroscience*, **2003**, 4, 617-27	35.5	193
55	AmphiNk2-tin, an amphioxus homeobox gene expressed in myocardial progenitors: insights into evolution of the vertebrate heart. *Developmental Biology*, **2003**, 255, 128-37	3.1	67
54	An amphioxus winged helix/forkhead gene, AmphiFoxD: insights into vertebrate neural crest evolution. *Developmental Dynamics*, **2002**, 225, 289-97	2.9	79
53	AmphiFoxE4, an amphioxus winged helix/forkhead gene encoding a protein closely related to vertebrate thyroid transcription factor-2: expression during pharyngeal development. *Evolution & Development*, **2002**, 4, 9-15	2.6	39
52	An amphioxus nodal gene (AmphiNodal) with early symmetrical expression in the organizer and mesoderm and later asymmetrical expression associated with left-right axis formation. *Evolution & Development*, **2002**, 4, 418-25	2.6	79
51	Epidermal receptor development and sensory pathways in vitally stained amphioxus (Branchiostoma floridae). *Acta Zoologica*, **2002**, 83, 309-319	0.8	45
50	The retinoic acid signaling pathway regulates anterior/posterior patterning in the nerve cord and pharynx of amphioxus, a chordate lacking neural crest. *Development (Cambridge)*, **2002**, 129, 2905-2916	6.6	91

49	Evolution of neural crest and placodes: amphioxus as a model for the ancestral vertebrate?. *Journal of Anatomy*, **2001**, 199, 85-98	2.9	114
48	Characterization of Amphioxus AmphiVent, an evolutionarily conserved marker for chordate ventral mesoderm. *Genesis*, **2001**, 29, 172-9	1.9	36
47	Origin and early evolution of the vertebrates: new insights from advances in molecular biology, anatomy, and palaeontology. *BioEssays*, **2001**, 23, 142-51	4.1	133
46	Characterization and developmental expression of the amphioxus homolog of Notch (AmphiNotch): evolutionary conservation of multiple expression domains in amphioxus and vertebrates. *Developmental Biology*, **2001**, 232, 493-507	3.1	50
45	Three amphioxus Wnt genes (AmphiWnt3, AmphiWnt5, and AmphiWnt6) associated with the tail bud: the evolution of somitogenesis in chordates. *Developmental Biology*, **2001**, 240, 262-73	3.1	125
44	Characterization of two amphioxus Wnt genes (AmphiWnt4 and AmphiWnt7b) with early expression in the developing central nervous system. *Developmental Dynamics*, **2000**, 217, 205-15	2.9	30
43	Characterization of an amphioxus wnt gene, AmphiWnt11, with possible roles in myogenesis and tail outgrowth. *Genesis*, **2000**, 27, 1-5	1.9	35
42	Characterization of amphioxus AmphiWnt8: insights into the evolution of patterning of the embryonic dorsoventral axis. *Evolution & Development*, **2000**, 2, 85-92	2.6	57
41	Amphioxus and the Utility of Molecular Genetic Data for Hypothesizing Body Part Homologies between Distantly Related Animals. *American Zoologist*, **1999**, 39, 630-640		39
40	AmphiPax3/7, an amphioxus paired box gene: insights into chordate myogenesis, neurogenesis, and the possible evolutionary precursor of definitive vertebrate neural crest. *Evolution & Development*, **1999**, 1, 153-65	2.6	109
39	Sequence and developmental expression of amphioxus AmphiNk2-1: insights into the evolutionary origin of the vertebrate thyroid gland and forebrain. *Development Genes and Evolution*, **1999**, 209, 254-9	1.8	72
38	Chordate origins of the vertebrate central nervous system. *Current Opinion in Neurobiology*, **1999**, 9, 596-602	7.6	103
37	AmphiBMP2/4, an amphioxus bone morphogenetic protein closely related to Drosophila decapentaplegic and vertebrate BMP2 and BMP4: insights into evolution of dorsoventral axis specification. *Developmental Dynamics*, **1998**, 213, 130-9	2.9	71
36	Developmental Gene Expression in Amphioxus: New Insights into the Evolutionary Origin of Vertebrate Brain Regions, Neural Crest, and Rostrocaudal Segmentation. *American Zoologist*, **1998**, 38, 647-658		36
35	The Lancelet. *American Scientist*, **1998**, 86, 552	2.7	44
34	AmphiBMP2/4, an amphioxus bone morphogenetic protein closely related to Drosophila decapentaplegic and vertebrate BMP2 and BMP4: Insights into evolution of dorsoventral axis specification **1998**, 213, 130		6
33	Topographic changes in nascent and early mesoderm in amphioxus embryos studied by DiI labeling and by in situ hybridization for a Brachyury gene. *Development Genes and Evolution*, **1997**, 206, 532-535	1.8	43
32	Differential gene expression and intracellular mRNA localization of amphioxus actin isoforms throughout development: Implications for conserved mechanisms of chordate development. *Development Genes and Evolution*, **1997**, 207, 203-215	1.8	26

31	Sequence and developmental expression of AmphiTob, an amphioxus homolog of vertebrate Tob in the PC3/BTG1/Tob family of tumor suppressor genes. *Developmental Dynamics*, **1997**, 210, 11-8	2.9	22
30	Sequence and developmental expression of AmphiTob, an amphioxus homolog of vertebrate Tob in the PC3/BTG1/Tob family of tumor suppressor genes **1997**, 210, 11		2
29	Reproduction of the Florida Lancelet (Branchiostoma floridae): Spawning Patterns and Fluctuations in Gonad Indexes and Nutritional Reserves. *Invertebrate Biology*, **1996**, 115, 349	1	27
28	Embryos and Larvae of a Lancelet, Branchiostoma floridae, from Hatching through Metamorphosis: Growth in the Laboratory and External Morphology. *Acta Zoologica*, **1995**, 76, 105-120	0.8	84
27	Engrailed Expression during Development of a Lamprey, Lampetra japonica: A Possible Clue to Homologies between Agnathan and Gnathostome Muscles of the Mandibular Arch. *Development Growth and Differentiation*, **1993**, 35, 153-160	3	40
26	Serotonin-containing Cells in the Nervous System and Other Tissues During Ontogeny of a Lancelet, Branchiostoma floridae. *Acta Zoologica*, **1993**, 74, 195-204	0.8	50
25	The Histochemistry and Fine Structure of the Nutritional Reserves in the Fin Rays of a Lancelet, Branchiostoma lanceolatum (Cephalochordata = Acrania). *Acta Zoologica*, **1991**, 72, 203-207	0.8	6
24	The fine structure of the growth stage oocytes of a lancelet (= amphioxus), Branchiostoma lanceolatum. *Invertebrate Reproduction and Development*, **1991**, 19, 107-122	0.7	18
23	The Structure of a Sessile, Stalkless Crinoid (Holopus rangii). *Acta Zoologica*, **1990**, 71, 61-67	0.8	28
22	Fine Structure of the Mesothelia and Extracellular Materials in the Coelomic Fluid of the Fin Boxes, Myocoels and Sclerocoels of a Lancelet, Branchiostoma floridae (Cephalochordata = Acrania). *Acta Zoologica*, **1990**, 71, 225-234	0.8	12
21	The Fine Structure of the Testis of a Lancelet (=Amphioxus), Branchiostoma floridae (Phylum Chordata: Subphylum Cephalochordata= Acrania). *Acta Zoologica*, **1989**, 70, 211-219	0.8	9
20	Fine Structural Study of the Cortical Reaction and Formation of the Egg Coats in a Lancelet (= Amphioxus),Branchiostoma floridae(Phylum Chordata: Subphylum Cephalochordata = Acrania). *Biological Bulletin*, **1989**, 176, 111-122	1.5	40
19	Fine structure of oocyte maturation in a crinoid echinoderm, Oxycomanthus japonicus: A time-lapse study by serial biopsy. *Journal of Morphology*, **1988**, 198, 205-217	1.6	6
18	The Role of Ligaments in Arm Extension in Feather Stars (Echinodermata: Crinoidea). *Acta Zoologica* , **1987**, 68, 79-82	0.8	9
17	The Fine Structure of the Stalk of the Pentacrinoid Larva of a Feather Star, Comanthus japonica (Echinodermata: Crinoidea). *Acta Zoologica*, **1984**, 65, 41-58	0.8	25
16	Electron microscopic studies of the digestive tract and absorption from the gut lumen of a feather star, oligometra serripinna (Echinodermata). *Zoomorphology*, **1984**, 104, 252-259	1	9
15	Electron Microscopic Study of Development in a Sea Cucumber, Stichopus tremulus (Holothuroidea), from Unfertilized Egg through Hatched Blastula. *Acta Zoologica*, **1981**, 62, 89-111	0.8	25
14	Fine structure of the cirri and a possible mechanism for their motility in stalkless crinoids (Echinodermata). *Cell and Tissue Research*, **1981**, 214, 207-17	4.2	41

13	Haemal and coelomic circulatory systems in the arms and pinnules ofFlorometra serratissima (Echinodermata: Crinoidea). *Zoomorphologie*, **1979**, 94, 93-109		30
12	The Fine Structure of the Echinoderm Cuticle and the Subcuticular Bacteria of Echinoderms. *Acta Zoologica*, **1978**, 59, 169-185	0.8	93
11	ELECTRON MICROSCOPIC DEMONSTRATION OF A DITHIOTHREITOL-LABILE VITELLINE COAT SURROUNDING THE UNFERTILIZED EGG OF COMANTHUS JAPONICA (ECHINODERMATA: CRINOIDEA)*. *Development Growth and Differentiation*, **1976**, 18, 199-204	3	2
10	Morphologically Specialized Sperm from the Ovary of Isometra vivipara (Echinodermata Crinoidea). *Acta Zoologica*, **1976**, 57, 147-152	0.8	12
9	Epidermal mucus and the reproduction of a crinoid echinoderm. *Nature*, **1975**, 255, 223-4	50.4	7
8	Cholinesterase in larvae of the ascidian,Ciona intestinalis, developing from fragments cut from centrifuged eggs. *Development Genes and Evolution*, **1974**, 175, 91-102	1.8	5
7	The fine structure of the fertilization membrane of the feather star Comanthus japonica (Echinodermata: Crinoidea). *Tissue and Cell*, **1973**, 5, 209-14	2.7	28
6	The coelomic elements of sea urchins (Strongylocentrotus). *Protoplasma*, **1970**, 71, 419-442	3.4	19
5	A comparative study of gut mucous cells in thirty-seven species of the class Echinoidea (Echinodermata). *Biological Bulletin*, **1970**, 138, 286-305	1.5	24
4	The Fine Structure of the Gastric Exocrine Cells of the Purple Sea Urchin, Strongylocentrotus purpuratus. *Transactions of the American Microscopical Society*, **1968**, 87, 201		10
3	AN AUTORADIOGRAPHIC INVESTIGATION OF TOOTH RENEWAL IN THE PURPLE SEA URCHIN (STRONGYLOCENTROTUS PURPURATUS). *The Journal of Experimental Zoology*, **1965**, 158, 275-81		34
2	AN AUTORADIOGRAPHIC INVESTIGATION OF COELOMOCYTE PRODUCTION IN THE PURPLE SEA URCHIN (STRONGYLOCENTROUS PURPURATUS). *Biological Bulletin*, **1965**, 128, 259-270	1.5	34
1	AN AUTORADIOGRAPHIC AND HISTOCHEMICAL INVESTIGATION OF THE GUT MUCOPOLYSACCHARIDES OF THE PURPLE SEA URCHIN (STRONGYLOCENTROTUS PURPURATUS). *Biological Bulletin*, **1964**, 127, 280-293	1.5	20