# Olivier Pourquie

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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|---|---|---|---|
| 130<br>papers | 11,221<br>citations | 56<br>h-index | 105<br>g-index |
| 188<br>ext. papers | 13,058<br>ext. citations | 13.6<br>avg, IF | 6.7<br>L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 130 | Paraxial mesoderm organoids model development of human somites.. *ELife*, **2022**, 11, | 8.9 | 4 |
| 129 | A brief history of the segmentation clock.. *Developmental Biology*, **2022**, 485, 24-24 | 3.1 | 1 |
| 128 | Bioinks and bioprinting strategies for skeletal muscle tissue engineering. *Advanced Materials*, **2021**, e2105883 | 24 | 5 |
| 127 | Patterning with clocks and genetic cascades: Segmentation and regionalization of vertebrate versus insect body plans. *PLoS Genetics*, **2021**, 17, e1009812 | 6 | 5 |
| 126 | Human muscle production in vitro from pluripotent stem cells: Basic and clinical applications. *Seminars in Cell and Developmental Biology*, **2021**, 119, 39-48 | 7.5 | 3 |
| 125 | Prednisolone rescues Duchenne muscular dystrophy phenotypes in human pluripotent stem cell-derived skeletal muscle in vitro. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, | 11.5 | 8 |
| 124 | In vitro systems: A new window to the segmentation clock. *Development Growth and Differentiation* , **2021**, 63, 140-153 | 3 | 5 |
| 123 | Dynamics of primitive streak regression controls the fate of neuromesodermal progenitors in the chicken embryo. *ELife*, **2021**, 10, | 8.9 | 6 |
| 122 | Metabolic decisions in development and disease-a Keystone Symposia report. *Annals of the New York Academy of Sciences*, **2021**, | 6.5 | 1 |
| 121 | Optogenetic modeling of human neuromuscular circuits in Duchenne muscular dystrophy with CRISPR and pharmacological corrections. *Science Advances*, **2021**, 7, eabi8787 | 14.3 | 2 |
| 120 | Mechanical Coupling Coordinates the Co-elongation of Axial and Paraxial Tissues in Avian Embryos. *Developmental Cell*, **2020**, 55, 354-366.e5 | 10.2 | 22 |
| 119 | Differentiation of the human PAX7-positive myogenic precursors/satellite cell lineage. *Development (Cambridge)*, **2020**, 147, | 6.6 | 14 |
| 118 | Intracellular pH controls WNT downstream of glycolysis in amniote embryos. *Nature*, **2020**, 584, 98-101 | 50.4 | 39 |
| 117 | Bioelectrical domain walls in homogeneous tissues. *Nature Physics*, **2020**, 16, 357-364 | 16.2 | 22 |
| 116 | In vitro characterization of the human segmentation clock. *Nature*, **2020**, 580, 113-118 | 50.4 | 63 |
| 115 | Printing of Adhesive Hydrogel Scaffolds for the Treatment of Skeletal Muscle Injuries.. *ACS Applied Bio Materials*, **2020**, 3, 1568-1579 | 4.1 | 50 |
| 114 | Exploring the Influence of Cell Metabolism on Cell Fate through Protein Post-translational Modifications. *Developmental Cell*, **2020**, 54, 282-292 | 10.2 | 12 |

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| 113 | The Lin28/let-7 Pathway Regulates the Mammalian Caudal Body Axis Elongation Program. *Developmental Cell*, **2019**, 48, 396-405.e3 | 10.2 | 23 |
| 112 | SarcTrack. *Circulation Research*, **2019**, 124, 1172-1183 | 15.7 | 56 |
| 111 | Mechanics of Anteroposterior Axis Formation in Vertebrates. *Annual Review of Cell and Developmental Biology*, **2019**, 35, 259-283 | 12.6 | 19 |
| 110 | Timed Collinear Activation of Hox Genes during Gastrulation Controls the Avian Forelimb Position. *Current Biology*, **2019**, 29, 35-50.e4 | 6.3 | 29 |
| 109 | Recapitulating early development of mouse musculoskeletal precursors of the paraxial mesoderm. *Development (Cambridge)*, **2018**, 145, | 6.6 | 31 |
| 108 | Somite formation in the chicken embryo. *International Journal of Developmental Biology*, **2018**, 62, 57-62 | 1.9 | 13 |
| 107 | The Long Road to Making Muscle In Vitro. *Current Topics in Developmental Biology*, **2018**, 129, 123-142 | 5.3 | 15 |
| 106 | couples the segmentation clock to somite morphogenesis by regulating N-cadherin-dependent adhesion. *Development (Cambridge)*, **2017**, 144, 664-676 | 6.6 | 20 |
| 105 | A Gradient of Glycolytic Activity Coordinates FGF and Wnt Signaling during Elongation of the Body Axis in Amniote Embryos. *Developmental Cell*, **2017**, 40, 342-353.e10 | 10.2 | 87 |
| 104 | Making muscle: skeletal myogenesis and. *Development (Cambridge)*, **2017**, 144, 2104-2122 | 6.6 | 308 |
| 103 | The WHHERE coactivator complex is required for retinoic acid-dependent regulation of embryonic symmetry. *Nature Communications*, **2017**, 8, 728 | 17.4 | 17 |
| 102 | Excitable Dynamics and Yap-Dependent Mechanical Cues Drive the Segmentation Clock. *Cell*, **2017**, 171, 668-682.e11 | 56.2 | 75 |
| 101 | Multi-scale quantification of tissue behavior during amniote embryo axis elongation. *Development (Cambridge)*, **2017**, 144, 4462-4472 | 6.6 | 32 |
| 100 | Generation of human muscle fibers and satellite-like cells from human pluripotent stem cells in vitro. *Nature Protocols*, **2016**, 11, 1833-50 | 18.8 | 132 |
| 99 | Standing Up for Sticklebacks. *Cell*, **2016**, 164, 9-10 | 56.2 | |
| 98 | Differentiation of pluripotent stem cells to muscle fiber to model Duchenne muscular dystrophy. *Nature Biotechnology*, **2015**, 33, 962-9 | 44.5 | 247 |
| 97 | Independent regulation of vertebral number and vertebral identity by microRNA-196 paralogs. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E4884-93 | 11.5 | 40 |
| 96 | Hox genes control vertebrate body elongation by collinear Wnt repression. *ELife*, **2015**, 4, | 8.9 | 77 |

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| 95 | Author response: Hox genes control vertebrate body elongation by collinear Wnt repression **2015**, | | 4 |
| 94 | A relative shift in cloacal location repositions external genitalia in amniote evolution. *Nature*, **2014**, 516, 391-4 | 50.4 | 54 |
| 93 | Signalling dynamics in vertebrate segmentation. *Nature Reviews Molecular Cell Biology*, **2014**, 15, 709-21 | 48.7 | 221 |
| 92 | Developmental Biology. Managing patterns and proportions over time. *Science*, **2014**, 345, 1565-6 | 33.3 | |
| 91 | Manteia, a predictive data mining system for vertebrate genes and its applications to human genetic diseases. *Nucleic Acids Research*, **2014**, 42, D882-91 | 20.1 | 17 |
| 90 | Integrative data mining highlights candidate genes for monogenic myopathies. *PLoS ONE*, **2014**, 9, e110888 | 3.7 | 10 |
| 89 | Formation and segmentation of the vertebrate body axis. *Annual Review of Cell and Developmental Biology*, **2013**, 29, 1-26 | 12.6 | 94 |
| 88 | Making the clock tick: right time, right pace. *Developmental Cell*, **2013**, 24, 115-6 | 10.2 | 4 |
| 87 | Evolutionary plasticity of segmentation clock networks. *Development (Cambridge)*, **2011**, 138, 2783-92 | 6.6 | 127 |
| 86 | Vertebrate segmentation: from cyclic gene networks to scoliosis. *Cell*, **2011**, 145, 650-63 | 56.2 | 254 |
| 85 | Rere controls retinoic acid signalling and somite bilateral symmetry. *Nature*, **2010**, 463, 953-7 | 50.4 | 84 |
| 84 | Changes in Hox genesTstructure and function during the evolution of the squamate body plan. *Nature*, **2010**, 464, 99-103 | 50.4 | 122 |
| 83 | A random cell motility gradient downstream of FGF controls elongation of an amniote embryo. *Nature*, **2010**, 466, 248-52 | 50.4 | 216 |
| 82 | Spatiotemporal compartmentalization of key physiological processes during muscle precursor differentiation. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 4224-9 | 11.5 | 30 |
| 81 | Lighting up developmental mechanisms: how fluorescence imaging heralded a new era. *Development (Cambridge)*, **2010**, 137, 373-87 | 6.6 | 42 |
| 80 | Signaling gradients during paraxial mesoderm development. *Cold Spring Harbor Perspectives in Biology*, **2010**, 2, a000869 | 10.2 | 162 |
| 79 | Sex-dimorphic gene expression and ineffective dosage compensation of Z-linked genes in gastrulating chicken embryos. *BMC Genomics*, **2010**, 11, 13 | 4.5 | 54 |
| 78 | Incomplete penetrance and phenotypic variability characterize Gdf6-attributable oculo-skeletal phenotypes. *Human Molecular Genetics*, **2009**, 18, 1110-21 | 5.6 | 81 |

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|---|---|---|---|
| 77 | Cyclic Nrarp mRNA expression is regulated by the somitic oscillator but Nrarp protein levels do not oscillate. *Developmental Dynamics*, **2009**, 238, 3043-3055 | 2.9 | 15 |
| 76 | Developmental control of segment numbers in vertebrates. *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution*, **2009**, 312, 533-44 | 1.8 | 67 |
| 75 | Progress in the understanding of the genetic etiology of vertebral segmentation disorders in humans. *Annals of the New York Academy of Sciences*, **2009**, 1151, 38-67 | 6.5 | 49 |
| 74 | More than patterning--Hox genes and the control of posterior axial elongation. *Developmental Cell*, **2009**, 17, 439-40 | 10.2 | 4 |
| 73 | Establishment of Hox vertebral identities in the embryonic spine precursors. *Current Topics in Developmental Biology*, **2009**, 88, 201-34 | 5.3 | 67 |
| 72 | Control of segment number in vertebrate embryos. *Nature*, **2008**, 454, 335-9 | 50.4 | 295 |
| 71 | A beta-catenin gradient links the clock and wavefront systems in mouse embryo segmentation. *Nature Cell Biology*, **2008**, 10, 186-93 | 23.4 | 231 |
| 70 | Segmental patterning of the vertebrate embryonic axis. *Nature Reviews Genetics*, **2008**, 9, 370-82 | 30.1 | 287 |
| 69 | Oscillating signaling pathways during embryonic development. *Current Opinion in Cell Biology*, **2008** , 20, 632-7 | 9 | 90 |
| 68 | Developmental biology: cell intercalation one step beyond. *Current Biology*, **2008**, 18, R119-21 | 6.3 | 1 |
| 67 | Retinoic acid. *Current Biology*, **2008**, 18, R191-2 | 6.3 | 17 |
| 66 | The vertebrate segmentation clock: the tip of the iceberg. *Current Opinion in Genetics and Development*, **2008**, 18, 317-23 | 4.9 | 51 |
| 65 | Manipulation and electroporation of the avian segmental plate and somites in vitro. *Methods in Cell Biology*, **2008**, 87, 257-70 | 1.8 | 19 |
| 64 | Comparison of pattern detection methods in microarray time series of the segmentation clock. *PLoS ONE*, **2008**, 3, e2856 | 3.7 | 32 |
| 63 | Modeling the segmentation clock as a network of coupled oscillations in the Notch, Wnt and FGF signaling pathways. *Journal of Theoretical Biology*, **2008**, 252, 574-85 | 2.3 | 142 |
| 62 | Mutations in the MESP2 gene cause spondylothoracic dysostosis/Jarcho-Levin syndrome. *American Journal of Human Genetics*, **2008**, 82, 1334-41 | 11 | 64 |
| 61 | Abnormal vertebral segmentation and the notch signaling pathway in man. *Developmental Dynamics*, **2007**, 236, 1456-74 | 2.9 | 116 |
| 60 | Sharp developmental thresholds defined through bistability by antagonistic gradients of retinoic acid and FGF signaling. *Developmental Dynamics*, **2007**, 236, 1495-508 | 2.9 | 105 |

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| 59 | Hox genes in time and space during vertebrate body formation. *Development Growth and Differentiation*, **2007**, 49, 265-75 | 3 | 96 |
| 58 | FGF signaling acts upstream of the NOTCH and WNT signaling pathways to control segmentation clock oscillations in mouse somitogenesis. *Development (Cambridge)*, **2007**, 134, 4033-41 | 6.6 | 137 |
| 57 | Dual mode of paraxial mesoderm formation during chick gastrulation. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 2744-9 | 11.5 | 57 |
| 56 | A complex oscillating network of signaling genes underlies the mouse segmentation clock. *Science*, **2006**, 314, 1595-8 | 33.3 | 359 |
| 55 | Oscillations of the snail genes in the presomitic mesoderm coordinate segmental patterning and morphogenesis in vertebrate somitogenesis. *Developmental Cell*, **2006**, 10, 355-66 | 10.2 | 116 |
| 54 | Collinear activation of Hoxb genes during gastrulation is linked to mesoderm cell ingression. *Nature* , **2006**, 442, 568-71 | 50.4 | 174 |
| 53 | On periodicity and directionality of somitogenesis. *Anatomy and Embryology*, **2006**, 211 Suppl 1, 3-8 | | 28 |
| 52 | In vivo analysis of mRNA stability using the Tet-Off system in the chicken embryo. *Developmental Biology*, **2005**, 284, 292-300 | 3.1 | 30 |
| 51 | Retinoic acid coordinates somitogenesis and left-right patterning in vertebrate embryos. *Nature*, **2005**, 435, 215-20 | 50.4 | 213 |
| 50 | Chicken genome: new tools and concepts. *Developmental Dynamics*, **2005**, 232, 883-6 | 2.9 | 11 |
| 49 | Synchronised cycling gene oscillations in presomitic mesoderm cells require cell-cell contact. *International Journal of Developmental Biology*, **2005**, 49, 309-15 | 1.9 | 70 |
| 48 | Control of the segmentation process by graded MAPK/ERK activation in the chick embryo. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 11343-8 | 11.5 | 146 |
| 47 | Coupling segmentation to axis formation. *Development (Cambridge)*, **2004**, 131, 5783-93 | 6.6 | 161 |
| 46 | fgf8 mRNA decay establishes a gradient that couples axial elongation to patterning in the vertebrate embryo. *Nature*, **2004**, 427, 419-22 | 50.4 | 323 |
| 45 | The chick embryo: a leading model in somitogenesis studies. *Mechanisms of Development*, **2004**, 121, 1069-79 | 1.7 | 61 |
| 44 | Axon fasciculation defects and retinal dysplasias in mice lacking the immunoglobulin superfamily adhesion molecule BEN/ALCAM/SC1. *Molecular and Cellular Neurosciences*, **2004**, 27, 59-69 | 4.8 | 87 |
| 43 | Segmentation clock: insights from computational models. *Current Biology*, **2003**, 13, R632-4 | 6.3 | 23 |
| 42 | BEN/DM-GRASP/SC1 expression during mouse facial development: differential expression and regulation in molars and incisors. *Gene Expression Patterns*, **2003**, 3, 255-9 | 1.5 | 3 |

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|---|---|---|---|
| 41 | Synthesis of new 3-alkoxy-7-amino-4-chloro-isocoumarin derivatives as new beta-amyloid peptide production inhibitors and their activities on various classes of protease. *Bioorganic and Medicinal Chemistry*, **2003**, 11, 3141-52 | 3.4 | 42 |
| 40 | Welcome to syndetome: a new somitic compartment. *Developmental Cell*, **2003**, 4, 611-2 | 10.2 | 11 |
| 39 | The segmentation clock: converting embryonic time into spatial pattern. *Science*, **2003**, 301, 328-30 | 33.3 | 426 |
| 38 | Genetics. Chicken genome--science nuggets to come soon. *Science*, **2003**, 300, 1669 | 33.3 | 42 |
| 37 | Vertebrate somitogenesis: a novel paradigm for animal segmentation?. *International Journal of Developmental Biology*, **2003**, 47, 597-603 | 1.9 | 49 |
| 36 | Vertebrate segmentation: lunatic transcriptional regulation. *Current Biology*, **2002**, 12, R699-701 | 6.3 | 2 |
| 35 | From head to tail: links between the segmentation clock and antero-posterior patterning of the embryo. *Current Opinion in Genetics and Development*, **2002**, 12, 519-23 | 4.9 | 48 |
| 34 | A molecular clock involved in somite segmentation. *Current Topics in Developmental Biology*, **2001**, 51, 221-48 | 5.3 | 55 |
| 33 | The vertebrate segmentation clock. *Journal of Anatomy*, **2001**, 199, 169-75 | 2.9 | 40 |
| 32 | New protease inhibitors prevent gamma-secretase-mediated production of Abeta40/42 without affecting Notch cleavage. *Nature Cell Biology*, **2001**, 3, 507-11 | 23.4 | 169 |
| 31 | Vertebrate somitogenesis. *Annual Review of Cell and Developmental Biology*, **2001**, 17, 311-50 | 12.6 | 212 |
| 30 | A nomenclature for prospective somites and phases of cyclic gene expression in the presomitic mesoderm. *Developmental Cell*, **2001**, 1, 619-20 | 10.2 | 94 |
| 29 | FGF signaling controls somite boundary position and regulates segmentation clock control of spatiotemporal Hox gene activation. *Cell*, **2001**, 106, 219-32 | 56.2 | 541 |
| 28 | A clock-work somite. *BioEssays*, **2000**, 22, 72-83 | 4.1 | 77 |
| 27 | Vertebrate segmentation: is cycling the rule?. *Current Opinion in Cell Biology*, **2000**, 12, 747-51 | 9 | 15 |
| 26 | Skin development: delta laid bare. *Current Biology*, **2000**, 10, R425-8 | 6.3 | 24 |
| 25 | Somite formation and patterning. *International Review of Cytology*, **2000**, 198, 1-65 | | 56 |
| 24 | Oscillating expression of c-Hey2 in the presomitic mesoderm suggests that the segmentation clock may use combinatorial signaling through multiple interacting bHLH factors. *Developmental Biology*, **2000**, 227, 91-103 | 3.1 | 133 |

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|---|---|---|---|
| 23 | Expression of DM-GRASP/BEN in the developing mouse spinal cord and various epithelia. *Mechanisms of Development*, **2000**, 95, 221-4 | 1.7 | 10 |
| 22 | Segmentation of the paraxial mesoderm and vertebrate somitogenesis. *Current Topics in Developmental Biology*, **2000**, 47, 81-105 | 5.3 | 35 |
| 21 | Notch around the clock. *Current Opinion in Genetics and Development*, **1999**, 9, 559-65 | 4.9 | 62 |
| 20 | The lunatic fringe gene is a target of the molecular clock linked to somite segmentation in avian embryos. *Current Biology*, **1998**, 8, 979-82 | 6.3 | 233 |
| 19 | Uncoupling segmentation and somitogenesis in the chick presomitic mesoderm. *Genesis*, **1998**, 23, 77-85 | | 76 |
| 18 | Somitogenesis: segmenting a vertebrate. *Current Opinion in Genetics and Development*, **1998**, 8, 487-93 | 4.9 | 59 |
| 17 | Clocks regulating developmental processes. *Current Opinion in Neurobiology*, **1998**, 8, 665-70 | 7.6 | 25 |
| 16 | Expression of genes (CAPN3, SGCA, SGCB, and TTN) involved in progressive muscular dystrophies during early human development. *Genomics*, **1998**, 48, 145-56 | 4.3 | 52 |
| 15 | Avian hairy gene expression identifies a molecular clock linked to vertebrate segmentation and somitogenesis. *Cell*, **1997**, 91, 639-48 | 56.2 | 737 |
| 14 | Maintenance of neuroepithelial progenitor cells by Delta-Notch signalling in the embryonic chick retina. *Current Biology*, **1997**, 7, 661-70 | 6.3 | 372 |
| 13 | Induction of oligodendrocyte progenitors in the trunk neural tube by ventralizing signals: effects of notochord and floor plate grafts, and of sonic hedgehog. *Mechanisms of Development*, **1996**, 60, 13-32 | 1.7 | 126 |
| 12 | Lateral and axial signals involved in avian somite patterning: a role for BMP4. *Cell*, **1996**, 84, 461-71 | 56.2 | 363 |
| 11 | BEN as a presumptive target recognition molecule during the development of the olivocerebellar system. *Journal of Neuroscience*, **1996**, 16, 3296-310 | 6.6 | 81 |
| 10 | Cell migrations and establishment of neuronal connections in the developing brain: a study using the quail-chick chimera system. *Progress in Brain Research*, **1994**, 100, 3-18 | 2.9 | 6 |
| 9 | Identification in the chicken of GRL1 and GRL2: two granule proteins expressed on the surface of activated leukocytes. *Experimental Cell Research*, **1993**, 204, 156-66 | 4.2 | 10 |
| 8 | BEN, a novel surface molecule of the immunoglobulin superfamily on avian hemopoietic progenitor cells shared with neural cells. *Experimental Cell Research*, **1992**, 203, 91-9 | 4.2 | 27 |
| 7 | An antigen expressed by avian neuronal cells is also expressed by activated T lymphocytes. *Cellular Immunology*, **1992**, 141, 99-110 | 4.4 | 25 |
| 6 | In vitro characterization of the human segmentation clock | | 2 |

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| 5 | Dynamics of primitive streak regression controls the fate of neuro-mesodermal progenitors in the chicken embryo | 5 |
| 4 | Prednisolone rescues Duchenne Muscular Dystrophy phenotypes in human pluripotent stem cells-derived skeletal muscle in vitro | 2 |
| 3 | Mechanical Coupling Coordinates the Co-elongation of Axial and Paraxial Tissues in Avian Embryos | 2 |
| 2 | Motility-gradient induced elongation of the vertebrate embryo | 4 |
| 1 | hiPSC-derived 3D Bioprinted Skeletal Muscle Tissue Implants Regenerate Skeletal Muscle Following Volumetric Muscle Loss | 2 |