

# Michael Levin

## List of Publications by Year in descending order

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Version: 2024-02-01

384  
papers

19,918  
citations

10351

72  
h-index

18606

119  
g-index

429  
all docs

429  
docs citations

429  
times ranked

10064  
citing authors

#	ARTICLE	IF	CITATIONS
1	Endless forms most beautiful 2.0: teleonomy and the bioengineering of chimaeric and synthetic organisms. <i>Biological Journal of the Linnean Society</i> , 2023, 139, 457-486.	0.7	28
2	Potassium channel-driven bioelectric signalling regulates metastasis in triple-negative breast cancer. <i>EBioMedicine</i> , 2022, 75, 103767.	2.7	26
3	Multi-scale Chimerism: An experimental window on the algorithms of anatomical control. <i>Cells and Development</i> , 2022, 169, 203764.	0.7	8
4	Minimal Developmental Computation: A Causal Network Approach to Understand Morphogenetic Pattern Formation. <i>Entropy</i> , 2022, 24, 107.	1.1	13
5	Acute multidrug delivery via a wearable bioreactor facilitates long-term limb regeneration and functional recovery in adult <i>Xenopus laevis</i> . <i>Science Advances</i> , 2022, 8, eabj2164.	4.7	27
6	Studying Protista WBR and Repair Using <i>Physarum polycephalum</i> . <i>Methods in Molecular Biology</i> , 2022, 2450, 51-67.	0.4	0
7	Impact of Membrane Voltage on Formation and Stability of Human Renal Proximal Tubules <i>in Vitro</i> . <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 1239-1246.	2.6	0
8	Design for an Individual: Connectionist Approaches to the Evolutionary Transitions in Individuality. <i>Frontiers in Ecology and Evolution</i> , 2022, 10, .	1.1	13
9	A Computational Approach to Explaining Bioelectrically Induced Persistent, Stochastic Changes of Axial Polarity in Planarian Regeneration. <i>Bioelectricity</i> , 2022, 4, 18-30.	0.6	0
10	Technological Approach to Mind Everywhere: An Experimentally-Grounded Framework for Understanding Diverse Bodies and Minds. <i>Frontiers in Systems Neuroscience</i> , 2022, 16, 768201.	1.2	44
11	Bioelectricity: From Endogenous Mechanisms to Opportunities in Synthetic Bioengineering. <i>Bioelectricity</i> , 2022, 4, 1-2.	0.6	1
12	Ion Channel Drugs Suppress Cancer Phenotype in NG108-15 and U87 Cells: Toward Novel Electroceuticals for Glioblastoma. <i>Cancers</i> , 2022, 14, 1499.	1.7	12
13	Biological underpinnings for lifelong learning machines. <i>Nature Machine Intelligence</i> , 2022, 4, 196-210.	8.3	62
14	Metacognition as a Consequence of Competing Evolutionary Time Scales. <i>Entropy</i> , 2022, 24, 601.	1.1	11
15	Biology, Buddhism, and AI: Care as the Driver of Intelligence. <i>Entropy</i> , 2022, 24, 710.	1.1	4
16	A free energy principle for generic quantum systems. <i>Progress in Biophysics and Molecular Biology</i> , 2022, 173, 36-59.	1.4	29
17	Neurons as hierarchies of quantum reference frames. <i>BioSystems</i> , 2022, 219, 104714.	0.9	12
18	HCN2 channel-induced rescue of brain, eye, heart and gut teratogenesis caused by nicotine, ethanol and aberrant notch signalling. <i>Wound Repair and Regeneration</i> , 2022, 30, 681-706.	1.5	11

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19	Enhancers of Host Immune Tolerance to Bacterial Infection Discovered Using Linked Computational and Experimental Approaches. <i>Advanced Science</i> , 2022, 9, .	5.6	3
20	Competency in Navigating Arbitrary Spaces as an Invariant for Analyzing Cognition in Diverse Embodiments. <i>Entropy</i> , 2022, 24, 819.	1.1	37
21	Life, death, and self: Fundamental questions of primitive cognition viewed through the lens of body plasticity and synthetic organisms. <i>Biochemical and Biophysical Research Communications</i> , 2021, 564, 114-133.	1.0	42
22	A Meta-Analysis of Bioelectric Data in Cancer, Embryogenesis, and Regeneration. <i>Bioelectricity</i> , 2021, 3, 42-67.	0.6	25
23	Epigenetic control of myeloid cells behavior by Histone Deacetylase activity (HDAC) during tissue and organ regeneration in <i>Xenopus laevis</i> . <i>Developmental and Comparative Immunology</i> , 2021, 114, 103840.	1.0	3
24	Shape Changing Robots: Bioinspiration, Simulation, and Physical Realization. <i>Advanced Materials</i> , 2021, 33, e2002882.	11.1	66
25	Reframing cognition: getting down to biological basics. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20190750.	1.8	85
26	Self-Organising Textures. <i>Distill</i> , 2021, 6, .	5.3	12
27	Bistability of somatic pattern memories: stochastic outcomes in bioelectric circuits underlying regeneration. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20190765.	1.8	24
28	Uncovering cognitive similarities and differences, conservation and innovation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200458.	1.8	29
29	Unlimited plasticity of embodied, cognitive subjects: a new playground for the UAL framework. <i>Biology and Philosophy</i> , 2021, 36, 1.	0.7	1
30	Living Things Are Not (20th Century) Machines: Updating Mechanism Metaphors in Light of the Modern Science of Machine Behavior. <i>Frontiers in Ecology and Evolution</i> , 2021, 9, .	1.1	39
31	A cellular platform for the development of synthetic living machines. <i>Science Robotics</i> , 2021, 6, .	9.9	86
32	Gene regulatory networks exhibit several kinds of memory: Quantification of memory in biological and random transcriptional networks. <i>IScience</i> , 2021, 24, 102131.	1.9	31
33	Editorial. <i>Bioelectricity</i> , 2021, 3, 2-2.	0.6	0
34	Editorial: Interplay Between Ion Channels, the Nervous System, and Embryonic Development. <i>Frontiers in Molecular Neuroscience</i> , 2021, 14, 618815.	1.4	1
35	Learning and synaptic plasticity in 3D bioengineered neural tissues. <i>Neuroscience Letters</i> , 2021, 750, 135799.	1.0	2
36	Bioelectric signaling: Reprogrammable circuits underlying embryogenesis, regeneration, and cancer. <i>Cell</i> , 2021, 184, 1971-1989.	13.5	157

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37	Synthetic living machines: A new window on life. <i>IScience</i> , 2021, 24, 102505.	1.9	35
38	Bioelectrical approaches to cancer as a problem of the scaling of the cellular self. <i>Progress in Biophysics and Molecular Biology</i> , 2021, 165, 102-113.	1.4	35
39	Adversarial Reprogramming of Neural Cellular Automata. <i>Distill</i> , 2021, 6, .	5.3	2
40	Shape-Changing Robots: Shape Changing Robots: Bioinspiration, Simulation, and Physical Realization ( <i>Adv. Mater.</i> 19/2021). <i>Advanced Materials</i> , 2021, 33, 2170150.	11.1	2
41	Minimal physicalism as a scale-free substrate for cognition and consciousness. <i>Neuroscience of Consciousness</i> , 2021, 2021, niab013.	1.4	24
42	Unmixing octopus camouflage by multispectral mapping of <i>Octopus bimaculoides</i> ™ chromatic elements. <i>Nanophotonics</i> , 2021, 10, 2441-2450.	2.9	4
43	Mechanosensation Mediates Long-Range Spatial Decision-Making in an Aneural Organism. <i>Advanced Materials</i> , 2021, 33, e2008161.	11.1	11
44	Inducing Vertebrate Limb Regeneration: A Review of Past Advances and Future Outlook. <i>Cold Spring Harbor Perspectives in Biology</i> , 2021, , a040782.	2.3	4
45	A Comprehensive Conceptual and Computational Dynamics Framework for Autonomous Regeneration Systems. <i>Artificial Life</i> , 2021, 27, 80-104.	1.0	4
46	Bioelectricity Is the Bridge Where Cancer Meets Neuroscience. <i>Bioelectricity</i> , 2021, 3, 159-160.	0.6	0
47	Beyond Neurons: Long Distance Communication in Development and Cancer. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 739024.	1.8	16
48	Stability and robustness properties of bioelectric networks: A computational approach. <i>Biophysics Reviews</i> , 2021, 2, .	1.0	2
49	Metabolic limits on classical information processing by biological cells. <i>BioSystems</i> , 2021, 209, 104513.	0.9	13
50	Morphology changes induced by intercellular gap junction blocking: A reaction-diffusion mechanism. <i>BioSystems</i> , 2021, 209, 104511.	0.9	10
51	Cell Systems Bioelectricity: How Different Intercellular Gap Junctions Could Regionalize a Multicellular Aggregate. <i>Cancers</i> , 2021, 13, 5300.	1.7	13
52	Rewiring Endogenous Bioelectric Circuits in the <i>Xenopus laevis</i> Embryo Model. <i>Methods in Molecular Biology</i> , 2021, 2258, 93-103.	0.4	2
53	Kinematic self-replication in reconfigurable organisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	57
54	Behaviorist approaches to investigating memory and learning: A primer for synthetic biology and bioengineering. <i>Communicative and Integrative Biology</i> , 2021, 14, 230-247.	0.6	16

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55	Defined extracellular ionic solutions to study and manipulate the cellular resting membrane potential. <i>Biology Open</i> , 2020, 9, .	0.6	12
56	Morphogenesis as Bayesian inference: A variational approach to pattern formation and control in complex biological systems. <i>Physics of Life Reviews</i> , 2020, 33, 88-108.	1.5	73
57	Toward Decoding Bioelectric Events in <i>Xenopus</i> Embryogenesis: New Methodology for Tracking Interplay Between Calcium and Resting Potentials In Vivo. <i>Journal of Molecular Biology</i> , 2020, 432, 605-620.	2.0	14
58	A scalable pipeline for designing reconfigurable organisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 1853-1859.	3.3	255
59	Assessment of Enrichment of Human Mesenchymal Stem Cells Based on Plasma and Mitochondrial Membrane Potentials. <i>Bioelectricity</i> , 2020, 2, 21-32.	0.6	4
60	Bioelectrical model of head-tail patterning based on cell ion channels and intercellular gap junctions. <i>Bioelectrochemistry</i> , 2020, 132, 107410.	2.4	15
61	Post-SSRI Sexual Dysfunction: A Bioelectric Mechanism?. <i>Bioelectricity</i> , 2020, 2, 7-13.	0.6	3
62	Morphological Coordination: A Common Ancestral Function Unifying Neural and Non-Neural Signaling. <i>Physiology</i> , 2020, 35, 16-30.	1.6	58
63	Nervous system and tissue polarity dynamically adapt to new morphologies in planaria. <i>Developmental Biology</i> , 2020, 467, 51-65.	0.9	9
64	Integrating variational approaches to pattern formation into a deeper physics. <i>Physics of Life Reviews</i> , 2020, 33, 125-128.	1.5	3
65	Precise control of ion channel and gap junction expression is required for patterning of the regenerating axolotl limb. <i>International Journal of Developmental Biology</i> , 2020, 64, 485-494.	0.3	7
66	How Do Living Systems Create Meaning?. <i>Philosophies</i> , 2020, 5, 36.	0.4	20
67	Emergence of informative higher scales in biological systems: a computational toolkit for optimal prediction and control. <i>Communicative and Integrative Biology</i> , 2020, 13, 108-118.	0.6	15
68	Applications and ethics of computer-designed organisms. <i>Nature Reviews Molecular Cell Biology</i> , 2020, 21, 655-656.	16.1	16
69	Why isn't sex optional? Stem-cell competition, loss of regenerative capacity, and cancer in metazoan evolution. <i>Communicative and Integrative Biology</i> , 2020, 13, 170-183.	0.6	8
70	Inaugural Issue. <i>Bioelectricity</i> , 2020, 2, 1-1.	0.6	0
71	Machine Learning-Driven Bioelectronics for Closed-Loop Control of Cells. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000140.	3.3	29
72	A 3D Tissue Model of Traumatic Brain Injury with Excitotoxicity That Is Inhibited by Chronic Exposure to Gabapentinoids. <i>Biomolecules</i> , 2020, 10, 1196.	1.8	7

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73	Cover Image: Volume 22, Issue 4. <i>Evolution &amp; Development</i> , 2020, 22, i.	1.1	0
74	Bioelectronic control of chloride ions and concentration with Ag/AgCl contacts. <i>APL Materials</i> , 2020, 8, .	2.2	18
75	Bioelectricity: A Quick Reminder of a Fast-Advancing Discipline!. <i>Bioelectricity</i> , 2020, 2, 208-209.	0.6	2
76	Scale-Free Biology: Integrating Evolutionary and Developmental Thinking. <i>BioEssays</i> , 2020, 42, e1900228.	1.2	31
77	Richard Borgens, 1946-2019. <i>Bioelectricity</i> , 2020, 2, 205-205.	0.6	0
78	On the coupling of mechanics with bioelectricity and its role in morphogenesis. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20200177.	1.5	14
79	Revisiting Burr and Northrop's "The Electro-Dynamic Theory of Life" (1935). <i>Biological Theory</i> , 2020, 15, 83-90.	0.8	7
80	Interferon-Gamma Stimulated Murine Macrophages In Vitro: Impact of Ionic Composition and Osmolarity and Therapeutic Implications. <i>Bioelectricity</i> , 2020, 2, 48-58.	0.6	6
81	Sertraline induces DNA damage and cellular toxicity in <i>Drosophila</i> that can be ameliorated by antioxidants. <i>Scientific Reports</i> , 2020, 10, 4512.	1.6	7
82	von Willebrand factor D and EGF domains is an evolutionarily conserved and required feature of blastemas capable of multitissue appendage regeneration. <i>Evolution &amp; Development</i> , 2020, 22, 297-311.	1.1	25
83	Competitive and Coordinative Interactions between Body Parts Produce Adaptive Developmental Outcomes. <i>BioEssays</i> , 2020, 42, e1900245.	1.2	20
84	Scalable sim-to-real transfer of soft robot designs. , 2020, , .		40
85	Does regeneration recapitulate phylogeny? Planaria as a model of body-axis specification in ancestral eumetazoa. <i>Communicative and Integrative Biology</i> , 2020, 13, 27-38.	0.6	7
86	The Biophysics of Regenerative Repair Suggests New Perspectives on Biological Causation. <i>BioEssays</i> , 2020, 42, e1900146.	1.2	27
87	Extra-genomic instructive influences in morphogenesis: A review of external signals that regulate growth and form. <i>Developmental Biology</i> , 2020, 461, 1-12.	0.9	11
88	Optogenetically induced cellular habituation in non-neuronal cells. <i>PLoS ONE</i> , 2020, 15, e0227230.	1.1	6
89	Formin, an opinion. <i>Development (Cambridge)</i> , 2020, 147, .	1.2	5
90	An in vivo brain-bacteria interface: the developing brain as a key regulator of innate immunity. <i>Npj Regenerative Medicine</i> , 2020, 5, 2.	2.5	7

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91	Bioelectrical Coupling of Single-Cell States in Multicellular Systems. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3234-3241.	2.1	28
92	Regulation of axial and head patterning during planarian regeneration by a commensal bacterium. <i>Mechanisms of Development</i> , 2020, 163, 103614.	1.7	20
93	Community effects allow bioelectrical reprogramming of cell membrane potentials in multicellular aggregates: Model simulations. <i>Physical Review E</i> , 2020, 102, 052412.	0.8	10
94	Growing Neural Cellular Automata. <i>Distill</i> , 2020, 5, .	5.3	56
95	HCN2 Channel-Induced Rescue of Brain Teratogenesis via Local and Long-Range Bioelectric Repair. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 136.	1.8	32
96	Eya2 promotes cell cycle progression by regulating DNA damage response during vertebrate limb regeneration. <i>ELife</i> , 2020, 9, .	2.8	23
97	Self-classifying MNIST Digits. <i>Distill</i> , 2020, 5, .	5.3	13
98	Machine Learning-Driven Bioelectronics for Closed-Loop Control of Cells. <i>Advanced Intelligent Systems</i> , 2020, 2, 2070122.	3.3	3
99	Optogenetically induced cellular habituation in non-neuronal cells. , 2020, 15, e0227230.		0
100	Optogenetically induced cellular habituation in non-neuronal cells. , 2020, 15, e0227230.		0
101	Optogenetically induced cellular habituation in non-neuronal cells. , 2020, 15, e0227230.		0
102	Optogenetically induced cellular habituation in non-neuronal cells. , 2020, 15, e0227230.		0
103	Reverse-engineering growth and form in Heidelberg. <i>Development (Cambridge)</i> , 2019, 146, .	1.2	5
104	From non-excitable single-cell to multicellular bioelectrical states supported by ion channels and gap junction proteins: Electrical potentials as distributed controllers. <i>Progress in Biophysics and Molecular Biology</i> , 2019, 149, 39-53.	1.4	30
105	L-type voltage-gated Ca <sup>2+</sup> channel Ca <sub>v</sub> 1.2 regulates chondrogenesis during limb development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21592-21601.	3.3	41
106	Managing Ideas, People, and Projects: Organizational Tools and Strategies for Researchers. <i>IScience</i> , 2019, 20, 278-291.	1.9	2
107	Hyperosmolar Potassium Inhibits Myofibroblast Conversion and Reduces Scar Tissue Formation. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 5327-5336.	2.6	8
108	Editor's Picks for the Cancer Special Issue. <i>Bioelectricity</i> , 2019, 1, 201-202.	0.6	0

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109	A flow through device for simultaneous dielectrophoretic cell trapping and AC electroporation. <i>Scientific Reports</i> , 2019, 9, 11988.	1.6	46
110	Bioelectrical controls of morphogenesis: from ancient mechanisms of cell coordination to biomedical opportunities. <i>Current Opinion in Genetics and Development</i> , 2019, 57, 61-69.	1.5	38
111	Somatic multicellularity as a satisficing solution to the prediction-error minimization problem. <i>Communicative and Integrative Biology</i> , 2019, 12, 119-132.	0.6	12
112	Bioelectric Control of Metastasis in Solid Tumors. <i>Bioelectricity</i> , 2019, 1, 114-130.	0.6	47
113	EDEnâ€“Electroceutical Design Environment: Ion Channel Tissue Expression Database with Small Molecule Modulators. <i>IScience</i> , 2019, 11, 42-56.	1.9	24
114	On the Generalization of Habituation: How Discrete Biological Systems Respond to Repetitive Stimuli. <i>BioEssays</i> , 2019, 41, e1900028.	1.2	7
115	Live imaging of intracellular pH in planarians using the ratiometric fluorescent dye SNARF-5F-AM. <i>Biology Methods and Protocols</i> , 2019, 4, bpz005.	1.0	1
116	Synchronization of Bioelectric Oscillations in Networks of Nonexcitable Cells: From Single-Cell to Multicellular States. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3924-3934.	1.2	25
117	The Cognitive Lens: a primer on conceptual tools for analysing information processing in developmental and regenerative morphogenesis. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180369.	1.8	44
118	Neural control of body-plan axis in regenerating planaria. <i>PLoS Computational Biology</i> , 2019, 15, e1006904.	1.5	36
119	Membrane Potential Depolarization Alters Calcium Flux and Phosphate Signaling During Osteogenic Differentiation of Human Mesenchymal Stem Cells. <i>Bioelectricity</i> , 2019, 1, 56-66.	0.6	32
120	A call for a better understanding of causation in cell biology. <i>Nature Reviews Molecular Cell Biology</i> , 2019, 20, 261-262.	16.1	41
121	The Role of Early Bioelectric Signals in the Regeneration of Planarian Anterior/Posterior Polarity. <i>Biophysical Journal</i> , 2019, 116, 948-961.	0.2	70
122	The Computational Boundary of a â€œSelfâ€ Developmental Bioelectricity Drives Multicellularity and Scale-Free Cognition. <i>Frontiers in Psychology</i> , 2019, 10, 2688.	1.1	114
123	Regenerative Adaptation to Electrochemical Perturbation in Planaria: A Molecular Analysis of Physiological Plasticity. <i>IScience</i> , 2019, 22, 147-165.	1.9	19
124	Endogenous Bioelectrics in Development, Cancer, and Regeneration: Drugs and Bioelectronic Devices as Electroceuticals for Regenerative Medicine. <i>IScience</i> , 2019, 22, 519-533.	1.9	40
125	Modeling somatic computation with non-neural bioelectric networks. <i>Scientific Reports</i> , 2019, 9, 18612.	1.6	28
126	Selective Serotonin Reuptake Inhibitor Use During Pregnancy and Major Malformations: The Importance of Serotonin for Embryonic Development and the Effect of Serotonin Inhibition on the Occurrence of Malformations. <i>Bioelectricity</i> , 2019, 1, 18-29.	0.6	8



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127	The Bioelectricity Revolution: A Discussion Among the Founding Associate Editors. <i>Bioelectricity</i> , 2019, 1, 8-15.	0.6	1
128	Effects of Ivermectin Exposure on Regeneration of <i>D. dorotocephala</i> Planaria: Exploiting Human-Approved Ion Channel Drugs as Morphochemicals. <i>Macromolecular Bioscience</i> , 2019, 19, e1800237.	2.1	6
129	Planarian regeneration as a model of anatomical homeostasis: Recent progress in biophysical and computational approaches. <i>Seminars in Cell and Developmental Biology</i> , 2019, 87, 125-144.	2.3	47
130	Toward Modeling Regeneration via Adaptable Echo State Networks. , 2019, , 117-134.		0
131	HCN2 Rescues brain defects by enforcing endogenous voltage pre-patterns. <i>Nature Communications</i> , 2018, 9, 998.	5.8	63
132	The body electric 2.0: recent advances in developmental bioelectricity for regenerative and synthetic bioengineering. <i>Current Opinion in Biotechnology</i> , 2018, 52, 134-144.	3.3	81
133	Nicosamide rescues microcephaly in a humanized <i>in vivo</i> model of Zika infection using human induced neural stem cells. <i>Biology Open</i> , 2018, 7, .	0.6	30
134	Bioelectrical control of positional information in development and regeneration: A review of conceptual and computational advances. <i>Progress in Biophysics and Molecular Biology</i> , 2018, 137, 52-68.	1.4	35
135	Inverse Drug Screening of Bioelectric Signaling and Neurotransmitter Roles: Illustrated Using a <i>Xenopus</i> Tail Regeneration Assay. <i>Cold Spring Harbor Protocols</i> , 2018, 2018, pdb.prot099937.	0.2	9
136	Bioelectric signaling in regeneration: Mechanisms of ionic controls of growth and form. <i>Developmental Biology</i> , 2018, 433, 177-189.	0.9	163
137	Slime mould: The fundamental mechanisms of biological cognition. <i>BioSystems</i> , 2018, 165, 57-70.	0.9	67
138	Bioelectrical coupling in multicellular domains regulated by gap junctions: A conceptual approach. <i>Bioelectrochemistry</i> , 2018, 123, 45-61.	2.4	59
139	Booting up the organism during development: Pre-behavioral functions of the vertebrate brain in guiding body morphogenesis. <i>Communicative and Integrative Biology</i> , 2018, 11, e1433440.	0.6	14
140	Are Planaria Individuals? What Regenerative Biology is Telling Us About the Nature of Multicellularity. <i>Evolutionary Biology</i> , 2018, 45, 237-247.	0.5	38
141	The bioelectric code: An ancient computational medium for dynamic control of growth and form. <i>BioSystems</i> , 2018, 164, 76-93.	0.9	139
142	Embodying Markov blankets. <i>Physics of Life Reviews</i> , 2018, 24, 32-36.	1.5	6
143	Multiscale memory and bioelectric error correction in the cytoplasmic-cytoskeleton-membrane system. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2018, 10, e1410.	6.6	32
144	Cover Image, Volume 10, Issue 2. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2018, 10, e1420.	6.6	0

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145	Avian models and the study of invariant asymmetry: how the chicken and the egg taught us to tell right from left. <i>International Journal of Developmental Biology</i> , 2018, 62, 63-77.	0.3	17
146	Brief Local Application of Progesterone via a Wearable Bioreactor Induces Long-Term Regenerative Response in Adult <i>Xenopus</i> Hindlimb. <i>Cell Reports</i> , 2018, 25, 1593-1609.e7.	2.9	33
147	A Computational Framework for Autonomous Self-repair Systems. <i>Lecture Notes in Computer Science</i> , 2018, , 153-159.	1.0	5
148	The Bacterial Metabolite Indole Inhibits Regeneration of the Planarian Flatworm <i>Dugesia japonica</i> . <i>IScience</i> , 2018, 10, 135-148.	1.9	17
149	Ivermectin Promotes Peripheral Nerve Regeneration during Wound Healing. <i>ACS Omega</i> , 2018, 3, 12392-12402.	1.6	11
150	Perspective: The promise of multi-cellular engineered living systems. <i>APL Bioengineering</i> , 2018, 2, 040901.	3.3	110
151	Activating PAX gene family paralogs to complement PAX5 leukemia driver mutations. <i>PLoS Genetics</i> , 2018, 14, e1007642.	1.5	3
152	Inform: Efficient Information-Theoretic Analysis of Collective Behaviors. <i>Frontiers in Robotics and AI</i> , 2018, 5, 60.	2.0	33
153	Pattern Regeneration in Coupled Networks. , 2018, , .		1
154	Modeling Cell Migration in a Simulated Bioelectrical Signaling Network for Anatomical Regeneration. , 2018, , .		4
155	From Physics to Pattern: Uncovering Pattern Formation in Tissue Electrophysiology. , 2018, , .		6
156	Cross-limb communication during <i>Xenopus</i> hind-limb regenerative response: non-local bioelectric injury signals. <i>Development (Cambridge)</i> , 2018, 145, .	1.2	30
157	A computational model of planarian regeneration. <i>International Journal of Parallel, Emergent and Distributed Systems</i> , 2017, 32, 331-347.	0.7	11
158	Gap junctional signaling in pattern regulation: Physiological network connectivity instructs growth and form. <i>Developmental Neurobiology</i> , 2017, 77, 643-673.	1.5	67
159	Reversals of Bodies, Brains, and Behavior. <i>Neuromethods</i> , 2017, , 667-694.	0.2	1
160	Discovering novel phenotypes with automatically inferred dynamic models: a partial melanocyte conversion in <i>Xenopus</i> . <i>Scientific Reports</i> , 2017, 7, 41339.	1.6	26
161	Repeated removal of developing limb buds permanently reduces appendage size in the highly-regenerative axolotl. <i>Developmental Biology</i> , 2017, 424, 1-9.	0.9	31
162	Endogenous Bioelectric Signaling Networks: Exploiting Voltage Gradients for Control of Growth and Form. <i>Annual Review of Biomedical Engineering</i> , 2017, 19, 353-387.	5.7	182

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163	Planarian regeneration in space: Persistent anatomical, behavioral, and bacteriological changes induced by space travel. <i>Regeneration (Oxford, England)</i> , 2017, 4, 85-102.	6.3	23
164	Long-Term, Stochastic Editing of Regenerative Anatomy via Targeting Endogenous Bioelectric Gradients. <i>Biophysical Journal</i> , 2017, 112, 2231-2243.	0.2	101
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