James J Collins

List of Publications by Year in Descending Order

180 papers	**47,068** citations	**97** h-index	**192** g-index
192 ext. papers	**58,062** ext. citations	**25.5** avg, IF	**7.9** L-index

#	Paper	IF	Citations
180	Field validation of the performance of paper-based tests for the detection of the Zika and chikungunya viruses in serum samples.. *Nature Biomedical Engineering*, **2022**,	19	2
179	An engineered live biotherapeutic for the prevention of antibiotic-induced dysbiosis.. *Nature Biomedical Engineering*, **2022**,	19	5
178	Modulating the evolutionary trajectory of tolerance using antibiotics with different metabolic dependencies.. *Nature Communications*, **2022**, 13, 2525	17.4	2
177	Increased energy demand from anabolic-catabolic processes drives β-lactam antibiotic lethality.. *Cell Chemical Biology*, **2021**,	8.2	2
176	Engineering living therapeutics with synthetic biology. *Nature Reviews Drug Discovery*, **2021**, 20, 941-960	64.1	17
175	RNA-responsive elements for eukaryotic translational control. *Nature Biotechnology*, **2021**,	44.5	1
174	Cytoplasmic condensation induced by membrane damage is associated with antibiotic lethality. *Nature Communications*, **2021**, 12, 2321	17.4	9
173	Designing Biological Circuits: Synthetic Biology Within the Operon Model and Beyond. *Annual Review of Biochemistry*, **2021**, 90, 221-244	29.1	9
172	Wearable materials with embedded synthetic biology sensors for biomolecule detection. *Nature Biotechnology*, **2021**, 39, 1366-1374	44.5	54
171	Deep-Learning Resources for Studying Glycan-Mediated Host-Microbe Interactions. *Cell Host and Microbe*, **2021**, 29, 132-144.e3	23.4	15
170	Anomalous COVID-19 tests hinder researchers. *Science*, **2021**, 371, 244-245	33.3	8
169	Clinically relevant mutations in core metabolic genes confer antibiotic resistance. *Science*, **2021**, 371,	33.3	56
168	Engineering advanced logic and distributed computing in human CAR immune cells. *Nature Communications*, **2021**, 12, 792	17.4	20
167	Synthetic biology in the clinic: engineering vaccines, diagnostics, and therapeutics. *Cell*, **2021**, 184, 881-898	56.2	19
166	Using deep learning for dermatologist-level detection of suspicious pigmented skin lesions from wide-field images. *Science Translational Medicine*, **2021**, 13,	17.5	18
165	CRISPR-based diagnostics. *Nature Biomedical Engineering*, **2021**, 5, 643-656	19	80
164	Minimally instrumented SHERLOCK (miSHERLOCK) for CRISPR-based point-of-care diagnosis of SARS-CoV-2 and emerging variants. *Science Advances*, **2021**, 7,	14.3	36

163	Deep learning identifies synergistic drug combinations for treating COVID-19. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	18
162	Evidence that coronavirus superspreading is fat-tailed. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 29416-29418	11.5	52
161	Predictive biology: modelling, understanding and harnessing microbial complexity. *Nature Reviews Microbiology*, **2020**, 18, 507-520	22.2	41
160	Point-of-Care Devices to Detect Zika and Other Emerging Viruses. *Annual Review of Biomedical Engineering*, **2020**, 22, 371-386	12	10
159	Cell-free biosensors for rapid detection of water contaminants. *Nature Biotechnology*, **2020**, 38, 1451-1459	11.5	75
158	A Deep Learning Approach to Antibiotic Discovery. *Cell*, **2020**, 180, 688-702.e13	56.2	430
157	A CRISPR-based assay for the detection of opportunistic infections post-transplantation and for the monitoring of transplant rejection. *Nature Biomedical Engineering*, **2020**, 4, 601-609	19	34
156	A deep learning approach to programmable RNA switches. *Nature Communications*, **2020**, 11, 5057	17.4	27
155	Eradicating Bacterial Persisters with Combinations of Strongly and Weakly Metabolism-Dependent Antibiotics. *Cell Chemical Biology*, **2020**, 27, 1544-1552.e3	8.2	20
154	Parallel bimodal single-cell sequencing of transcriptome and chromatin accessibility. *Genome Research*, **2020**, 30, 1027-1039	9.7	22
153	Ultrasensitive CRISPR-based diagnostic for field-applicable detection of species in symptomatic and asymptomatic malaria. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 25722-25731	11.5	48
152	Diversification of reprogramming trajectories revealed by parallel single-cell transcriptome and chromatin accessibility sequencing. *Science Advances*, **2020**, 6,	14.3	12
151	Creating CRISPR-responsive smart materials for diagnostics and programmable cargo release. *Nature Protocols*, **2020**, 15, 3030-3063	18.8	16
150	Continuous bioactivity-dependent evolution of an antibiotic biosynthetic pathway. *Nature Communications*, **2020**, 11, 4202	17.4	7
149	Bacterial metabolic state more accurately predicts antibiotic lethality than growth rate. *Nature Microbiology*, **2019**, 4, 2109-2117	26.6	81
148	Programmable CRISPR-responsive smart materials. *Science*, **2019**, 365, 780-785	33.3	148
147	Engineering microbial peer pressure. *Science*, **2019**, 365, 986-987	33.3	1
146	A White-Box Machine Learning Approach for Revealing Antibiotic Mechanisms of Action. *Cell*, **2019**, 177, 1649-1661.e9	56.2	127

145   Complex signal processing in synthetic gene circuits using cooperative regulatory assemblies. *Science*, **2019**, 364, 593-597   33.3   67

144   A multiplexable assay for screening antibiotic lethality against drug-tolerant bacteria. *Nature Methods*, **2019**, 16, 303-306   21.6   19

143   Definitions and guidelines for research on antibiotic persistence. *Nature Reviews Microbiology*, **2019**, 17, 441-448   22.2   351

142   A systems biology pipeline identifies regulatory networks for stem cell engineering. *Nature Biotechnology*, **2019**, 37, 810-818   44.5   14

141   Bacterial Metabolism and Antibiotic Efficacy. *Cell Metabolism*, **2019**, 30, 251-259   24.6   148

140   De novo-designed translation-repressing riboregulators for multi-input cellular logic. *Nature Chemical Biology*, **2019**, 15, 1173-1182   11.7   48

139   Targeting Antibiotic Tolerance, Pathogen by Pathogen. *Cell*, **2018**, 172, 1228-1238   56.2   95

138   Reconstruction of complex single-cell trajectories using CellRouter. *Nature Communications*, **2018**, 9, 892   17.4   49

137   Multiplexed and portable nucleic acid detection platform with Cas13, Cas12a, and Csm6. *Science*, **2018**, 360, 439-444   33.3   916

136   Universal Chimeric Antigen Receptors for Multiplexed and Logical Control of T Cell Responses. *Cell*, **2018**, 173, 1426-1438.e11   56.2   297

135   CRISPR-based genomic tools for the manipulation of genetically intractable microorganisms. *Nature Reviews Microbiology*, **2018**, 16, 333-339   22.2   68

134   Understanding Biological Regulation Through Synthetic Biology. *Annual Review of Biophysics*, **2018**, 47, 399-423   21.1   55

133   Precise Cas9 targeting enables genomic mutation prevention. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 3669-3673   11.5   18

132   A CRISPR-Cas9-based gene drive platform for genetic interaction analysis in Candida albicans. *Nature Microbiology*, **2018**, 3, 73-82   26.6   95

131   BioBits Explorer: A modular synthetic biology education kit. *Science Advances*, **2018**, 4, eaat5105   14.3   68

130   BioBits Bright: A fluorescent synthetic biology education kit. *Science Advances*, **2018**, 4, eaat5107   14.3   55

129   An enhanced CRISPR repressor for targeted mammalian gene regulation. *Nature Methods*, **2018**, 15, 611-616   21.6   192

128   A low-cost paper-based synthetic biology platform for analyzing gut microbiota and host biomarkers. *Nature Communications*, **2018**, 9, 3347   17.4   139

| 127 | Next-Generation Machine Learning for Biological Networks. *Cell*, **2018**, 173, 1581-1592 | 56.2 | 385 |

| 126 | Probiotic strains detect and suppress cholera in mice. *Science Translational Medicine*, **2018**, 10, | 17.5 | 114 |

| 125 | CRISPR Guide RNA Cloning for Mammalian Systems. *Journal of Visualized Experiments*, **2018**, | 1.6 | 3 |

| 124 | Next-generation biocontainment systems for engineered organisms. *Nature Chemical Biology*, **2018**, 14, 530-537 | 11.7 | 96 |

| 123 | Designing microbial consortia with defined social interactions. *Nature Chemical Biology*, **2018**, 14, 821-829. | 11.7 | 141 |

| 122 | Carbon Sources Tune Antibiotic Susceptibility in Pseudomonas aeruginosa via Tricarboxylic Acid Cycle Control. *Cell Chemical Biology*, **2017**, 24, 195-206 | 8.2 | 166 |

| 121 | A Blueprint for a Synthetic Genetic Feedback Controller to Reprogram Cell Fate. *Cell Systems*, **2017**, 4, 109-120.e11 | 10.6 | 43 |

| 120 | Nucleic acid detection with CRISPR-Cas13a/C2c2. *Science*, **2017**, 356, 438-442 | 33.3 | 1240 |

| 119 | Antibiotic efficacy-context matters. *Current Opinion in Microbiology*, **2017**, 39, 73-80 | 7.9 | 55 |

| 118 | ZSCAN10 expression corrects the genomic instability of iPSCs from aged donors. *Nature Cell Biology*, **2017**, 19, 1037-1048 | 23.4 | 28 |

| 117 | Using Engineered Bacteria to Characterize Infection Dynamics and Antibiotic Effects In Vivo. *Cell Host and Microbe*, **2017**, 22, 263-268.e4 | 23.4 | 27 |

| 116 | Biophysical Constraints Arising from Compositional Context in Synthetic Gene Networks. *Cell Systems*, **2017**, 5, 11-24.e12 | 10.6 | 63 |

| 115 | Lethality of MalE-LacZ hybrid protein shares mechanistic attributes with oxidative component of antibiotic lethality. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9164-9169 | 11.5 | 22 |

| 114 | Comprehensive Mapping of Pluripotent Stem Cell Metabolism Using Dynamic Genome-Scale Network Modeling. *Cell Reports*, **2017**, 21, 2965-2977 | 10.6 | 41 |

| 113 | Understanding and Sensitizing Density-Dependent Persistence to Quinolone Antibiotics. *Molecular Cell*, **2017**, 68, 1147-1154.e3 | 17.6 | 63 |

| 112 | Antibiotic-Induced Changes to the Host Metabolic Environment Inhibit Drug Efficacy and Alter Immune Function. *Cell Host and Microbe*, **2017**, 22, 757-765.e3 | 23.4 | 112 |

| 111 | Complex cellular logic computation using ribocomputing devices. *Nature*, **2017**, 548, 117-121 | 50.4 | 211 |

| 110 | Portable, On-Demand Biomolecular Manufacturing. *Cell*, **2016**, 167, 248-259.e12 | 56.2 | 211 |

109	Creating Single-Copy Genetic Circuits. *Molecular Cell*, **2016**, 63, 329-336	17.6	46
108	LIN28 Regulates Stem Cell Metabolism and Conversion to Primed Pluripotency. *Cell Stem Cell*, **2016**, 19, 66-80	18	192
107	RNAi Reveals Phase-Specific Global Regulators of Human Somatic Cell Reprogramming. *Cell Reports*, **2016**, 15, 2597-607	10.6	32
106	Contributions of microbiome and mechanical deformation to intestinal bacterial overgrowth and inflammation in a human gut-on-a-chip. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E7-15	11.5	523
105	�megaDeadman⊔and ⊔Passcode⊔microbial kill switches for bacterial containment. *Nature Chemical Biology*, **2016**, 12, 82-6	11.7	163
104	A role for the bacterial GATC methylome in antibiotic stress survival. *Nature Genetics*, **2016**, 48, 581-6	36.3	55
103	Multiple mechanisms disrupt the let-7 microRNA family in neuroblastoma. *Nature*, **2016**, 535, 246-51	50.4	125
102	Ribocomputing devices for sophisticated in vivo logic computation **2016**,		1
101	Chemogenomics and orthology-based design of antibiotic combination therapies. *Molecular Systems Biology*, **2016**, 12, 872	12.2	60
100	Comparison of Cas9 activators in multiple species. *Nature Methods*, **2016**, 13, 563-567	21.6	308
99	Synthetic biology platform technologies for antimicrobial applications. *Advanced Drug Delivery Reviews*, **2016**, 105, 35-43	18.5	35
98	Rapid, Low-Cost Detection of Zika Virus Using Programmable Biomolecular Components. *Cell*, **2016**, 165, 1255-1266	56.2	697
97	Engineering Models to Scale. *Cell*, **2016**, 165, 516-7	56.2	1
96	Targeted erythropoietin selectively stimulates red blood cell expansion in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 5245-50	11.5	8
95	Engineered Phagemids for Nonlytic, Targeted Antibacterial Therapies. *Nano Letters*, **2015**, 15, 4808-13	11.5	66
94	Antibiotic efficacy is linked to bacterial cellular respiration. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 8173-80	11.5	353
93	Highly efficient Cas9-mediated transcriptional programming. *Nature Methods*, **2015**, 12, 326-8	21.6	856
92	DNA sense-and-respond protein modules for mammalian cells. *Nature Methods*, **2015**, 12, 1085-90	21.6	38

91	Bactericidal Antibiotics Induce Toxic Metabolic Perturbations that Lead to Cellular Damage. *Cell Reports*, **2015**, 13, 968-80	10.6	251
90	Cas9 gRNA engineering for genome editing, activation and repression. *Nature Methods*, **2015**, 12, 1051-4	21.6	210
89	Systematic identification of factors for provirus silencing in embryonic stem cells. *Cell*, **2015**, 163, 230-45	56.2	117
88	Unraveling the physiological complexities of antibiotic lethality. *Annual Review of Pharmacology and Toxicology*, **2015**, 55, 313-32	17.9	161
87	Synthetic biology devices for in vitro and in vivo diagnostics. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 14429-35	11.5	201
86	Boosting bacterial metabolism to combat antibiotic resistance. *Cell Metabolism*, **2015**, 21, 154-155	24.6	39
85	Chromatin regulation at the frontier of synthetic biology. *Nature Reviews Genetics*, **2015**, 16, 159-71	30.1	76
84	A brief history of synthetic biology. *Nature Reviews Microbiology*, **2014**, 12, 381-90	22.2	460
83	Programmable bacteria detect and record an environmental signal in the mammalian gut. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 4838-43	11.5	233
82	Bone marrow-on-a-chip replicates hematopoietic niche physiology in vitro. *Nature Methods*, **2014**, 11, 663-9	21.6	293
81	Paper-based synthetic gene networks. *Cell*, **2014**, 159, 940-54	56.2	451
80	Toehold switches: de-novo-designed regulators of gene expression. *Cell*, **2014**, 159, 925-39	56.2	459
79	Antibiotics induce redox-related physiological alterations as part of their lethality. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E2100-9	11.5	481
78	Tunable protein degradation in bacteria. *Nature Biotechnology*, **2014**, 32, 1276-81	44.5	130
77	CellNet: network biology applied to stem cell engineering. *Cell*, **2014**, 158, 903-915	56.2	358
76	Dissecting engineered cell types and enhancing cell fate conversion via CellNet. *Cell*, **2014**, 158, 889-902	56.2	181
75	Using targeted chromatin regulators to engineer combinatorial and spatial transcriptional regulation. *Cell*, **2014**, 158, 110-20	56.2	93
74	A community effort to assess and improve drug sensitivity prediction algorithms. *Nature Biotechnology*, **2014**, 32, 1202-12	44.5	447

73	Antibiotics and the gut microbiota. *Journal of Clinical Investigation*, **2014**, 124, 4212-8	15.9	375
72	Syntrophic exchange in synthetic microbial communities. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E2149-56	11.5	322
71	Deconstructing transcriptional heterogeneity in pluripotent stem cells. *Nature*, **2014**, 516, 56-61	50.4	262
70	Synthetic biology: How best to build a cell. *Nature*, **2014**, 509, 155-7	50.4	24
69	Induction of multipotential hematopoietic progenitors from human pluripotent stem cells via respecification of lineage-restricted precursors. *Cell Stem Cell*, **2013**, 13, 459-70	18	190
68	Bactericidal antibiotics induce mitochondrial dysfunction and oxidative damage in Mammalian cells. *Science Translational Medicine*, **2013**, 5, 192ra85	17.5	285
67	Silver enhances antibiotic activity against gram-negative bacteria. *Science Translational Medicine*, **2013**, 5, 190ra81	17.5	453
66	Potentiating antibacterial activity by predictably enhancing endogenous microbial ROS production. *Nature Biotechnology*, **2013**, 31, 160-5	44.5	259
65	Antibiotic treatment expands the resistance reservoir and ecological network of the phage metagenome. *Nature*, **2013**, 499, 219-22	50.4	352
64	Microbial persistence and the road to drug resistance. *Cell Host and Microbe*, **2013**, 13, 632-42	23.4	306
63	Salmonella typhimurium intercepts Escherichia coli signaling to enhance antibiotic tolerance. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 14420-5	11.5	113
62	Iterative plug-and-play methodology for constructing and modifying synthetic gene networks. *Nature Methods*, **2012**, 9, 1077-80	21.6	62
61	A synthetic biology framework for programming eukaryotic transcription functions. *Cell*, **2012**, 150, 647-58	36.2	239
60	Wisdom of crowds for robust gene network inference. *Nature Methods*, **2012**, 9, 796-804	21.6	1097
59	Oxidation of the guanine nucleotide pool underlies cell death by bactericidal antibiotics. *Science*, **2012**, 336, 315-9	33.3	316
58	Antibiotic-induced bacterial cell death exhibits physiological and biochemical hallmarks of apoptosis. *Molecular Cell*, **2012**, 46, 561-72	17.6	257
57	Signaling-mediated bacterial persister formation. *Nature Chemical Biology*, **2012**, 8, 431-3	11.7	302
56	Genetic switchboard for synthetic biology applications. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 5850-5	11.5	133

#	Reference	IF	Citations
55	Cellular decision making and biological noise: from microbes to mammals. *Cell*, **2011**, 144, 910-25	56.2	713
54	Synthetic biology moving into the clinic. *Science*, **2011**, 333, 1248-52	33.3	300
53	Metabolite-enabled eradication of bacterial persisters by aminoglycosides. *Nature*, **2011**, 473, 216-20	50.4	599
52	An atlas for Schistosoma mansoni organs and life-cycle stages using cell type-specific markers and confocal microscopy. *PLoS Neglected Tropical Diseases*, **2011**, 5, e1009	4.8	92
51	Bacterial charity work leads to population-wide resistance. *Nature*, **2010**, 467, 82-5	50.4	423
50	Synthetic biology: applications come of age. *Nature Reviews Genetics*, **2010**, 11, 367-79	30.1	900
49	How antibiotics kill bacteria: from targets to networks. *Nature Reviews Microbiology*, **2010**, 8, 423-35	22.2	1242
48	Tracking, tuning, and terminating microbial physiology using synthetic riboregulators. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 15898-903	11.5	143
47	Sublethal antibiotic treatment leads to multidrug resistance via radical-induced mutagenesis. *Molecular Cell*, **2010**, 37, 311-20	17.6	609
46	Highly efficient reprogramming to pluripotency and directed differentiation of human cells with synthetic modified mRNA. *Cell Stem Cell*, **2010**, 7, 618-30	18	2025
45	Diversity-based, model-guided construction of synthetic gene networks with predicted functions. *Nature Biotechnology*, **2009**, 27, 465-71	44.5	357
44	Next-generation synthetic gene networks. *Nature Biotechnology*, **2009**, 27, 1139-50	44.5	274
43	Synthetic gene networks that count. *Science*, **2009**, 324, 1199-202	33.3	449
42	Hydroxyurea induces hydroxyl radical-mediated cell death in Escherichia coli. *Molecular Cell*, **2009**, 36, 845-60	17.6	140
41	Engineered bacteriophage targeting gene networks as adjuvants for antibiotic therapy. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 4629-34	11.5	378
40	The Immunological Genome Project: networks of gene expression in immune cells. *Nature Immunology*, **2008**, 9, 1091-4	19.1	1098
39	Mistranslation of membrane proteins and two-component system activation trigger antibiotic-mediated cell death. *Cell*, **2008**, 135, 679-90	56.2	388
38	Dispersing biofilms with engineered enzymatic bacteriophage. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 11197-202	11.5	596

37	Gyrase inhibitors induce an oxidative damage cellular death pathway in Escherichia coli. *Molecular Systems Biology*, **2007**, 3, 91	12.2	327
36	Large-scale mapping and validation of Escherichia coli transcriptional regulation from a compendium of expression profiles. *PLoS Biology*, **2007**, 5, e8	9.7	1051
35	A common mechanism of cellular death induced by bactericidal antibiotics. *Cell*, **2007**, 130, 797-810	56.2	1833
34	Phenotypic consequences of promoter-mediated transcriptional noise. *Molecular Cell*, **2006**, 24, 853-65	17.6	479
33	RNA synthetic biology. *Nature Biotechnology*, **2006**, 24, 545-54	44.5	299
32	Chemogenomic profiling on a genome-wide scale using reverse-engineered gene networks. *Nature Biotechnology*, **2005**, 23, 377-83	44.5	283
31	Stochasticity in gene expression: from theories to phenotypes. *Nature Reviews Genetics*, **2005**, 6, 451-64	30.1	1738
30	Engineered riboregulators enable post-transcriptional control of gene expression. *Nature Biotechnology*, **2004**, 22, 841-7	44.5	443
29	Programmable cells: interfacing natural and engineered gene networks. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 8414-9	11.5	480
28	Noise-enhanced human sensorimotor function. *IEEE Engineering in Medicine and Biology Magazine*, **2003**, 22, 76-83		119
27	Noise in eukaryotic gene expression. *Nature*, **2003**, 422, 633-7	50.4	1273
26	Prediction and measurement of an autoregulatory genetic module. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 7714-9	11.5	367
25	Engineered gene circuits. *Nature*, **2002**, 420, 224-30	50.4	569
24	Synthetic gene network for entraining and amplifying cellular oscillations. *Physical Review Letters*, **2002**, 88, 148101	7.4	153
23	Computational studies of gene regulatory networks: in numero molecular biology. *Nature Reviews Genetics*, **2001**, 2, 268-79	30.1	426
22	Predicting cerebral blood flow response to orthostatic stress from resting dynamics: effects of healthy aging. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2001**, 281, R716-22	3.2	30
21	Construction of a genetic toggle switch in Escherichia coli. *Nature*, **2000**, 403, 339-42	50.4	3103
20	Noise-based switches and amplifiers for gene expression. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 2075-80	11.5	507

19	Mechanism of stochastic resonance enhancement in neuronal models driven by 1/f noise. *Physical Review E*, **1999**, 60, 4637-44	2.4	40
18	Synchronization of noisy systems by stochastic signals. *Physical Review E*, **1999**, 60, 284-92	2.4	68
17	Frequency Control of an Oscillatory Reaction by Reversible Binding of an Autocatalyst. *Physical Review Letters*, **1999**, 82, 1582-1585	7.4	13
16	Assessing muscle stiffness from quiet stance in Parkinson's disease. *Muscle and Nerve*, **1999**, 22, 635-9	3.4	32
15	Effects of Colored Noise on Stochastic Resonance in Sensory Neurons. *Physical Review Letters*, **1999**, 82, 2402-2405	7.4	233
14	Real-time experimental control of a system in its chaotic and nonchaotic regimes. *Physical Review E*, **1997**, 56, R3749-R3752	2.4	18
13	Noise-mediated enhancements and decrements in human tactile sensation. *Physical Review E*, **1997**, 56, 923-926	2.4	150
12	Stochastic Resonance in Ensembles of Nondynamical Elements: The Role of Internal Noise. *Physical Review Letters*, **1997**, 79, 4701-4704	7.4	89
11	Dynamic Control of Cardiac Alternans. *Physical Review Letters*, **1997**, 78, 4518-4521	7.4	157
10	Noise in human muscle spindles. *Nature*, **1996**, 383, 769-70	50.4	236
9	Noise-enhanced tactile sensation. *Nature*, **1996**, 383, 770	50.4	338
8	Tuning stochastic resonance. *Nature*, **1995**, 378, 341-342	50.4	7
7	Upright, correlated random walks: A statistical-biomechanics approach to the human postural control system. *Chaos*, **1995**, 5, 57-63	3.3	115
6	A group-theoretic approach to rings of coupled biological oscillators **1994**, 71, 95		10
5	Hard-wired central pattern generators for quadrupedal locomotion **1994**, 71, 375		2
4	Using Natural Language Processing to Learn the Grammar of Glycans		4
3	SweetOrigins: Extracting Evolutionary Information from Glycans		2
2	Rapid, Low-Cost Detection of Water Contaminants Using Regulated In Vitro Transcription		17