Guillermo Rodrigo

List of Publications by Year
in descending order

65	1,531	304602	345118
papers	citations	22 h-index	36 g-index

68	68	68	1840
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metalâ€“organic frameworks in pursuit of size: the development of macroscopic single crystals. Dalton Transactions, 2022, 51, 7775-7782.	1.6	4
2	Gene regulation by a protein translation factor at the single-cell level. PLoS Computational Biology, 2022, 18, e1010087.	1.5	7
3	Diagnostics of Infections Produced by the Plant Viruses TMV, TEV, and PVX with CRISPR-Cas12 and CRISPR-Cas13. ACS Synthetic Biology, 2022, 11, 2384-2393.	1.9	19
4	Nonequilibrium thermodynamics of the RNA-RNA interaction underlying a genetic transposition program. Physical Review E, 2021, 103, 042410.	0.8	3
5	CRISPR-Mediated Strand Displacement Logic Circuits with Toehold-Free DNA. ACS Synthetic Biology, 2021, 10, 950-956.	1.9	10
6	Molecular signatures of silencing suppression degeneracy from a complex RNA virus. PLoS Computational Biology, 2021, 17, e1009166.	1.5	3
7	CRISPR-Cas12a-Based Detection of SARS-CoV-2 Harboring the E484K Mutation. ACS Synthetic Biology, 2021, 10, 3595-3599.	1.9	10
8	Insights about collective decision-making at the genetic level. Biophysical Reviews, 2020, 12, 19-24.	1.5	4
9	Abscisic Acid Connects Phytohormone Signaling with RNA Metabolic Pathways and Promotes an Antiviral Response that Is Evaded by a Self-Controlled RNA Virus. Plant Communications, 2020, 1, 100099.	3.6	38
10	Probing the operability regime of an engineered ribocomputing unit in terms of dynamic range maintenance with extracellular changes and time. Journal of Biological Engineering, 2020, 14, 12.	2.0	0
11	Engineering a Circular Riboregulator in Escherichia coli. Biodesign Research, 2020, 2020, .	0.8	6
12	Ab initio scaling laws between noise and mean of gene expression. Physical Review E, 2019, 100, 032415.	0.8	1
13	Empirical modeling of material composition and size in MOFs prepared with ligand mixtures. Dalton Transactions, 2019, 48, 2881-2885.	1.6	2
14	Bacterial Population Control with Macroscopic HKUST Crystals. ACS Applied Materials & Interfaces, 2019, 11, 19878-19883.	4.0	10
15	Post-transcriptional bursting in genes regulated by small RNA molecules. Physical Review E, 2018, 97, 032401.	0.8	3
16	Suprathreshold Stochastic Resonance behind Cancer. Trends in Biochemical Sciences, 2018, 43, 483-485.	3.7	8
17	Viral Fitness Correlates with the Magnitude and Direction of the Perturbation Induced in the Hostâ€™s Transcriptome: The Tobacco Etch Potyvirusâ€”Tobacco Case Study. Molecular Biology and Evolution, 2018, 35, 1599-1615.	3.5	21
18	Boolean Computation in Plants Using Post-translational Genetic Control and a Visual Output Signal. ACS Synthetic Biology, 2018, 7, 2322-2330.	1.9	9

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19	Intrinsic adaptive value and early fate of gene duplication revealed by a bottom-up approach. ELife, 2018, 7, .	2.8	30
20	Modulation of Intracellular O₂ Concentration in Escherichia coli Strains Using Oxygen Consuming Devices. ACS Synthetic Biology, 2018, 7, 1742-1752.	1.9	2
21	Binary addition in a living cell based on riboregulation. PLoS Genetics, 2018, 14, e1007548.	1.5	8
22	Identification, introgression, and validation of fruit volatile QTLs from a red-fruited wild tomato species. Journal of Experimental Botany, 2017, 68, erw455.	2.4	61
23	Molecular noise can minimize the collective sensitivity of a clonal heterogeneous cell population. Journal of Theoretical Biology, 2017, 416, 38-44.	0.8	7
24	Virus-host interactome: Putting the accent on how it changes. Journal of Proteomics, 2017, 156, 1-4.	1.2	12
25	Model-based design of RNA hybridization networks implemented in living cells. Nucleic Acids Research, 2017, 45, 9797-9808.	6.5	12
26	Evolutionary impact of copy number variation rates. BMC Research Notes, 2017, 10, 393.	0.6	2
27	Antagonistic autoregulation speeds up a homogeneous response in Escherichia coli. Scientific Reports, 2016, 6, 36196.	1.6	9
28	Interaction network of tobacco etch potyvirus NIa protein with the host proteome during infection. BMC Genomics, 2016, 17, 87.	1.2	57
29	Functionalization of an Antisense Small RNA. Journal of Molecular Biology, 2016, 428, 889-892.	2.0	5
30	Genetic Redundancies Enhance Information Transfer in Noisy Regulatory Circuits. PLoS Computational Biology, 2016, 12, e1005156.	1.5	14
31	Viral Strain-Specific Differential Alterations in Arabidopsis Developmental Patterns. Molecular Plant-Microbe Interactions, 2015, 28, 1304-1315.	1.4	28
32	Dynamic signal processing by ribozyme-mediated RNA circuits to control gene expression. Nucleic Acids Research, 2015, 43, 5158-5170.	6.5	31
33	Exploring the Dynamics and Mutational Landscape of Riboregulation with a Minimal Synthetic Circuit in Living Cells. Biophysical Journal, 2015, 109, 1070-1076.	0.2	6
34	Regulatory RNA Design Through Evolutionary Computation and Strand Displacement. Methods in Molecular Biology, 2015, 1244, 63-78.	0.4	3
35	RiboMaker: computational design of conformation-based riboregulation. Bioinformatics, 2014, 30, 2508-2510.	1.8	24
36	Onset of virus systemic infection in plants is determined by speed of cell-to-cell movement and number of primary infection foci. Journal of the Royal Society Interface, 2014, 11, 20140555.	1.5	29

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37	Theoretical and experimental analysis of the forced LacI-AraC oscillator with a minimal gene regulatory model. Chaos, 2013, 23, 025109.	1.0	11
38	A new frontier in synthetic biology: automated design of small RNA devices in bacteria. Trends in Genetics, 2013, 29, 529-536.	2.9	31
39	AutoBioCAD: Full Biodesign Automation of Genetic Circuits. ACS Synthetic Biology, 2013, 2, 230-236.	1.9	46
40	Full Design Automation of Multi-State RNA Devices to Program Gene Expression Using Energy-Based Optimization. PLoS Computational Biology, 2013, 9, e1003172.	1.5	29
41	MicroRNA Precursors Are Not Structurally Robust but Plastic. Genome Biology and Evolution, 2013, 5, 181-186.	1.1	2
42	Towards an integrated molecular model of plantâ€“virus interactions. Current Opinion in Virology, 2012, 2, 719-724.	2.6	54
43	De novo automated design of small RNA circuits for engineering synthetic riboregulation in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15271-15276.	3.3	150
44	Describing the structural robustness landscape of bacterial small RNAs. BMC Evolutionary Biology, 2012, 12, 52.	3.2	6
45	A Meta-Analysis Reveals the Commonalities and Differences in Arabidopsis thaliana Response to Different Viral Pathogens. PLoS ONE, 2012, 7, e40526.	1.1	64
46	Perspectives on the automatic design of regulatory systems for synthetic biology. FEBS Letters, 2012, 586, 2037-2042.	1.3	18
47	Integral Control of Plant Gravitropism through the Interplay of Hormone Signaling and Gene Regulation. Biophysical Journal, 2011, 101, 757-763.	0.2	10
48	Structural Discrimination of Robustness in Transcriptional Feedforward Loops for Pattern Formation. PLoS ONE, 2011, 6, e16904.	1.1	26
49	A systems biology approach to the evolution of plantâ€“virus interactions. Current Opinion in Plant Biology, 2011, 14, 372-377.	3.5	31
50	Empirical model and in vivo characterization of the bacterial response to synthetic gene expression show that ribosome allocation limits growth rate. Biotechnology Journal, 2011, 6, 773-783.	1.8	54
51	Computational design of synthetic regulatory networks from a genetic library to characterize the designability of dynamical behaviors. Nucleic Acids Research, 2011, 39, e138-e138.	6.5	39
52	Optimal viral strategies for bypassing RNA silencing. Journal of the Royal Society Interface, 2011, 8, 257-268.	1.5	21
53	Network design meets in silico evolutionary biology. Biochimie, 2010, 92, 746-752.	1.3	10
54	Model-based redesign of global transcription regulation. Nucleic Acids Research, 2009, 37, e38-e38.	6.5	28

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55	Modular model-based design for heterologous bioproduction in bacteria. Current Opinion in Biotechnology, 2009, 20, 272-279.	3.3	14
56	Towards the automated engineering of a synthetic genome. Molecular BioSystems, 2009, 5, 733.	2.9	16
57	Reverse-engineering the Arabidopsis thaliana transcriptional network under changing environmental conditions. Genome Biology, 2009, 10, R96.	13.9	81
58	Computational Design in Synthetic Biology. , 2009, , 49-63.		2
59	Changes in the gene expression profile of Arabidopsis thaliana after infection with Tobacco etch virus. Virology Journal, 2008, 5, 92.	1.4	54
60	Computational design and evolution of the oscillatory response under lightâ€“dark cycles. Biochimie, 2008, 90, 888-897.	1.3	9
61	DESHARKY: automatic design of metabolic pathways for optimal cell growth. Bioinformatics, 2008, 24, 2554-2556.	1.8	105
62	Genetdes: automatic design of transcriptional networks. Bioinformatics, 2007, 23, 1857-1858.	1.8	65
63	Evolutionary mechanisms of circadian clocks. Open Life Sciences, 2007, 2, 233-253.	0.6	3
64	Asmparts: assembly of biological model parts. Systems and Synthetic Biology, 2007, 1, 167-170.	1.0	35
65	Computational design of digital and memory biological devices. Systems and Synthetic Biology, 2007, 1, 183-195.	1.0	19