

# Frédéric Barras

## List of Publications by Year in descending order

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48  
papers

4,252  
citations

172457

29  
h-index

197818

49  
g-index

56  
all docs

56  
docs citations

56  
times ranked

4625  
citing authors

#	ARTICLE	IF	CITATIONS
1	Oxidative stress, protein damage and repair in bacteria. <i>Nature Reviews Microbiology</i> , 2017, 15, 385-396.	28.6	634
2	Building Fe-S proteins: bacterial strategies. <i>Nature Reviews Microbiology</i> , 2010, 8, 436-446.	28.6	334
3	Repair of Oxidized Proteins. <i>Journal of Biological Chemistry</i> , 2001, 276, 48915-48920.	3.4	320
4	Iron/sulfur proteins biogenesis in prokaryotes: Formation, regulation and diversity. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 455-469.	1.0	281
5	Species-specific activity of antibacterial drug combinations. <i>Nature</i> , 2018, 559, 259-263.	27.8	276
6	SufC: an unorthodox cytoplasmic ABC/ATPase required for [Fe-S] biogenesis under oxidative stress. <i>EMBO Journal</i> , 2003, 22, 427-437.	7.8	245
7	Fe-S Cluster Biosynthesis Controls Uptake of Aminoglycosides in a ROS-Less Death Pathway. <i>Science</i> , 2013, 340, 1583-1587.	12.6	201
8	Iron-Sulfur (Fe/S) Protein Biogenesis: Phylogenomic and Genetic Studies of A-Type Carriers. <i>PLoS Genetics</i> , 2009, 5, e1000497.	3.5	166
9	Repairing oxidized proteins in the bacterial envelope using respiratory chain electrons. <i>Nature</i> , 2015, 528, 409-412.	27.8	139
10	ErpA, an iron-sulfur (Fe-S) protein of the A-type essential for respiratory metabolism in <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 13626-13631.	7.1	134
11	NfuA, a New Factor Required for Maturing Fe/S Proteins in <i>Escherichia coli</i> under Oxidative Stress and Iron Starvation Conditions. <i>Journal of Biological Chemistry</i> , 2008, 283, 14084-14091.	3.4	132
12	Biosynthesis and physiology of coenzyme Q in bacteria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 1004-1011.	1.0	123
13	Molecular organization, biochemical function, cellular role and evolution of NfuA, an atypical Fe-S carrier. <i>Molecular Microbiology</i> , 2012, 86, 155-171.	2.5	80
14	Ferredoxin Competes with Bacterial Frataxin in Binding to the Desulfurase IscS*. <i>Journal of Biological Chemistry</i> , 2013, 288, 24777-24787.	3.4	68
15	Silver and Antibiotic, New Facts to an Old Story. <i>Antibiotics</i> , 2018, 7, 79.	3.7	65
16	Methionine sulfoxide reductases protect Ffh from oxidative damages in <i>Escherichia coli</i> . <i>EMBO Journal</i> , 2004, 23, 1868-1877.	7.8	62
17	The "liaisons dangereuses"™ between iron and antibiotics. <i>FEMS Microbiology Reviews</i> , 2016, 40, 418-435.	8.6	60
18	Reprint of: Iron/sulfur proteins biogenesis in prokaryotes: Formation, regulation and diversity. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 923-937.	1.0	58

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19	The CsdA cysteine desulphurase promotes Fe/S biogenesis by recruiting Suf components and participates to a new sulphur transfer pathway by recruiting CsdL (exâ€¥gdL), a ubiquitinâ€­modifyingâ€­like protein. <i>Molecular Microbiology</i> , 2009, 74, 1527-1542.	2.5	52
20	Biogenesis of Fe/S proteins and pathogenicity: IscR plays a key role in allowing <i>Erwinia chrysanthemi</i> to adapt to hostile conditions. <i>Molecular Microbiology</i> , 2008, 67, 1257-1273.	2.5	51
21	The SUF system: an ABC ATPase-dependent protein complex with a role in Feâ€­S cluster biogenesis. <i>Research in Microbiology</i> , 2019, 170, 426-434.	2.1	49
22	A Soluble Metabolon Synthesizes the Isoprenoid Lipid Ubiquinone. <i>Cell Chemical Biology</i> , 2019, 26, 482-492.e7.	5.2	46
23	ubil, a New Gene in <i>Escherichia coli</i> Coenzyme Q Biosynthesis, Is Involved in Aerobic C5-hydroxylation. <i>Journal of Biological Chemistry</i> , 2013, 288, 20085-20092.	3.4	45
24	Evolution of Ubiquinone Biosynthesis: Multiple Proteobacterial Enzymes with Various Regioselectivities To Catalyze Three Contiguous Aromatic Hydroxylation Reactions. <i>MSystems</i> , 2016, 1, .	3.8	44
25	<i>In vivo</i> [ <i>F</i> â€­ <i>S</i> ] cluster acquisition by <i>IscR</i> and <i>NsrR</i> , two stress regulators in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 2013, 87, 493-508.	2.5	43
26	A Regulatory Circuit Composed of a Transcription Factor, IscR, and a Regulatory RNA, RyhB, Controls Fe-S Cluster Delivery. <i>MBio</i> , 2016, 7, .	4.1	41
27	ubil, a New Gene Required for Aerobic Growth and Proliferation in Macrophage, Is Involved in Coenzyme Q Biosynthesis in <i>Escherichia coli</i> and <i>Salmonella enterica</i> Serovar Typhimurium. <i>Journal of Bacteriology</i> , 2014, 196, 70-79.	2.2	38
28	The ironâ€­binding <i>CyaY</i> and <i>IscX</i> proteins assist the <i>ISC</i> â€­catalyzed <i>F</i> â€­ <i>S</i> biogenesis in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 2015, 95, 605-623.	2.5	36
29	The UbiK protein is an accessory factor necessary for bacterial ubiquinone (UQ) biosynthesis and forms a complex with the UQ biogenesis factor UbiJ. <i>Journal of Biological Chemistry</i> , 2017, 292, 11937-11950.	3.4	35
30	Ubiquinone Biosynthesis over the Entire O <sub>2</sub> Range: Characterization of a Conserved O <sub>2</sub> -Independent Pathway. <i>MBio</i> , 2019, 10, .	4.1	34
31	Making iron-sulfur cluster: structure, regulation and evolution of the bacterial ISC system. <i>Advances in Microbial Physiology</i> , 2020, 76, 1-39.	2.4	32
32	The MFS efflux pump EmrKY contributes to the survival of <i>Shigella</i> within macrophages. <i>Scientific Reports</i> , 2019, 9, 2906.	3.3	31
33	Bacterial Approaches for Assembling Iron-Sulfur Proteins. <i>MBio</i> , 2021, 12, e0242521.	4.1	31
34	Commercial Lysogeny Broth culture media and oxidative stress: A cautious tale. <i>Free Radical Biology and Medicine</i> , 2014, 74, 245-251.	2.9	28
35	The ErpA/NfuA complex builds an oxidation-resistant Fe-S cluster delivery pathway. <i>Journal of Biological Chemistry</i> , 2018, 293, 7689-7702.	3.4	28
36	Silver potentiates aminoglycoside toxicity by enhancing their uptake. <i>Molecular Microbiology</i> , 2017, 105, 115-126.	2.5	27

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37	The O <sub>2</sub> -independent pathway of ubiquinone biosynthesis is essential for denitrification in <i>Pseudomonas aeruginosa</i> . <i>Journal of Biological Chemistry</i> , 2020, 295, 9021-9032.	3.4	25
38	A small RNA controls bacterial sensitivity to gentamicin during iron starvation. <i>PLoS Genetics</i> , 2019, 15, e1008078.	3.5	22
39	The iron-sulfur cluster sensor IscR is a negative regulator of Spi1 type III secretion system in <i>Salmonella enterica</i> . <i>Cellular Microbiology</i> , 2017, 19, e12680.	2.1	21
40	Calorimetry and mass spectrometry study of oxidized calmodulin interaction with target and differential repair by methionine sulfoxide reductases. <i>Biochimie</i> , 2005, 87, 473-480.	2.6	20
41	Turning <i>Escherichia coli</i> into a Frataxin-Dependent Organism. <i>PLoS Genetics</i> , 2015, 11, e1005134.	3.5	19
42	Redox controls RecA protein activity via reversible oxidation of its methionine residues. <i>ELife</i> , 2021, 10, .	6.0	18
43	Iron-sulfur biology invades tRNA modification: the case of U34 sulfuration. <i>Nucleic Acids Research</i> , 2021, 49, 3997-4007.	14.5	16
44	Oxidative stress antagonizes fluoroquinolone drug sensitivity via the SoxR-SUF Fe-S cluster homeostatic axis. <i>PLoS Genetics</i> , 2020, 16, e1009198.	3.5	10
45	Cellular assays identify barriers impeding iron-sulfur enzyme activity in a non-native prokaryotic host. <i>ELife</i> , 2022, 11, .	6.0	9
46	The Biosynthetic Pathway of Ubiquinone Contributes to Pathogenicity of <i>Francisella novicida</i> . <i>Journal of Bacteriology</i> , 2021, 203, e0040021.	2.2	8
47	The Fe-S proteome of <i>Escherichia coli</i> : prediction, function, and fate. <i>Metallomics</i> , 2022, 14, .	2.4	6
48	Art and microbiology: encounters of the third type. <i>Environmental Microbiology Reports</i> , 2019, 11, 29-34.	2.4	3