

# Jacob G Bundy

## List of Publications by Citations

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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.

92 papers	6,288 citations	39 h-index	78 g-index
99 ext. papers	7,164 ext. citations	5.5 avg, IF	5.48 L-index

#	Paper	IF	Citations
92	Metabolic profiling, metabolomic and metabonomic procedures for NMR spectroscopy of urine, plasma, serum and tissue extracts. <i>Nature Protocols</i> , <b>2007</b> , 2, 2692-703	18.8	1536
91	Environmental metabolomics: a critical review and future perspectives. <i>Metabolomics</i> , <b>2009</b> , 5, 3-21	4.7	543
90	Species interactions alter evolutionary responses to a novel environment. <i>PLoS Biology</i> , <b>2012</b> , 10, e1001330	13.30	247
89	Metabolomic profiling of rapid cold hardening and cold shock in <i>Drosophila melanogaster</i> . <i>Journal of Insect Physiology</i> , <b>2007</b> , 53, 1218-32	2.4	203
88	Systems toxicology approach identifies coordinated metabolic responses to copper in a terrestrial non-model invertebrate, the earthworm <i>Lumbricus rubellus</i> . <i>BMC Biology</i> , <b>2008</b> , 6, 25	7.3	152
87	Metabolomic profiling of heat stress: hardening and recovery of homeostasis in <i>Drosophila</i> . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2006</b> , 291, R205-12	3.2	136
86	Bayesian deconvolution and quantification of metabolites in complex 1D NMR spectra using BATMAN. <i>Nature Protocols</i> , <b>2014</b> , 9, 1416-27	18.8	132
85	International NMR-based environmental metabolomics intercomparison exercise. <i>Environmental Science &amp; Technology</i> , <b>2009</b> , 43, 219-25	10.3	131
84	Environmental metabonomics: applying combination biomarker analysis in earthworms at a metal contaminated site. <i>Ecotoxicology</i> , <b>2004</b> , 13, 797-806	2.9	117
83	A metabolic signature of long life in <i>Caenorhabditis elegans</i> . <i>BMC Biology</i> , <b>2010</b> , 8, 14	7.3	115
82	Microbial communities in different soil types do not converge after diesel contamination. <i>Journal of Applied Microbiology</i> , <b>2002</b> , 92, 276-88	4.7	114
81	Metabonomic assessment of toxicity of 4-fluoroaniline, 3,5-difluoroaniline and 2-fluoro-4-methylaniline to the earthworm <i>Eisenia veneta</i> (rosa): Identification of new endogenous biomarkers. <i>Environmental Toxicology and Chemistry</i> , <b>2002</b> , 21, 1966-1972	3.8	104
80	Metabolic profiling detects early effects of environmental and lifestyle exposure to cadmium in a human population. <i>BMC Medicine</i> , <b>2012</b> , 10, 61	11.4	98
79	Cross-platform comparison of <i>Caenorhabditis elegans</i> tissue extraction strategies for comprehensive metabolome coverage. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 3730-6	7.8	98
78	The metabolomic responses of <i>Caenorhabditis elegans</i> to cadmium are largely independent of metallothionein status, but dominated by changes in cystathionine and phytochelatins. <i>Journal of Proteome Research</i> , <b>2009</b> , 8, 3512-9	5.6	95
77	Metabolic profile biomarkers of metal contamination in a sentinel terrestrial species are applicable across multiple sites. <i>Environmental Science &amp; Technology</i> , <b>2007</b> , 41, 4458-64	10.3	93
76	A software complement to AMDIS for processing GC-MS metabolomic data. <i>Analytical Biochemistry</i> , <b>2011</b> , 415, 206-8	3.1	89

75	An NMR-based metabonomic approach to the investigation of coelomic fluid biochemistry in earthworms under toxic stress. <i>FEBS Letters</i> , <b>2001</b> , 500, 31-5	3.8	87
74	NMR-derived developmental metabolic trajectories: an approach for visualizing the toxic actions of trichloroethylene during embryogenesis. <i>Metabolomics</i> , <b>2005</b> , 1, 149-158	4.7	83
73	Standard reporting requirements for biological samples in metabolomics experiments: environmental context. <i>Metabolomics</i> , <b>2007</b> , 3, 203-210	4.7	78
72	Earthworm species of the genus <i>Eisenia</i> can be phenotypically differentiated by metabolic profiling. <i>FEBS Letters</i> , <b>2002</b> , 521, 115-20	3.8	76
71	Identification of hydroxyapatite spherules provides new insight into subretinal pigment epithelial deposit formation in the aging eye. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 1565-70	11.5	75
70	Combined microbial community level and single species biosensor responses to monitor recovery of oil polluted soil. <i>Soil Biology and Biochemistry</i> , <b>2004</b> , 36, 1149-1159	7.5	75
69	<i>Pseudomonas aeruginosa</i> infection in cystic fibrosis: pathophysiological mechanisms and therapeutic approaches. <i>Expert Review of Respiratory Medicine</i> , <b>2016</b> , 10, 685-97	3.8	74
68	Discrimination of pathogenic clinical isolates and laboratory strains of <i>Bacillus cereus</i> by NMR-based metabolomic profiling. <i>FEMS Microbiology Letters</i> , <b>2005</b> , 242, 127-36	2.9	68
67	The analysis of para-cresol production and tolerance in <i>Clostridium difficile</i> 027 and 012 strains. <i>BMC Microbiology</i> , <b>2011</b> , 11, 86	4.5	66
66	Evaluation of predicted network modules in yeast metabolism using NMR-based metabolite profiling. <i>Genome Research</i> , <b>2007</b> , 17, 510-9	9.7	61
65	Current and future therapies for <i>Pseudomonas aeruginosa</i> infection in patients with cystic fibrosis. <i>FEMS Microbiology Letters</i> , <b>2017</b> , 364,	2.9	60
64	DNA sequence variation and methylation in an arsenic tolerant earthworm population. <i>Soil Biology and Biochemistry</i> , <b>2013</b> , 57, 524-532	7.5	58
63	<i>C. elegans</i> metallothioneins: response to and defence against ROS toxicity. <i>Molecular BioSystems</i> , <b>2011</b> , 7, 2397-406		57
62	Unique metabolites protect earthworms against plant polyphenols. <i>Nature Communications</i> , <b>2015</b> , 6, 7869	17.4	53
61	Metabolic adaptations of <i>Pseudomonas aeruginosa</i> during cystic fibrosis chronic lung infections. <i>Environmental Microbiology</i> , <b>2013</b> , 15, 398-408	5.2	53
60	The development of metabolomic sampling procedures for <i>Pichia pastoris</i> , and baseline metabolome data. <i>PLoS ONE</i> , <b>2011</b> , 6, e16286	3.7	47
59	Analysis of intact bacteria using rapid evaporative ionisation mass spectrometry. <i>Chemical Communications</i> , <b>2013</b> , 49, 6188-90	5.8	46
58	Time-resolved metabolic footprinting for nonlinear modeling of bacterial substrate utilization. <i>Applied and Environmental Microbiology</i> , <b>2009</b> , 75, 2453-63	4.8	46

57	Validation of metabolomics for toxic mechanism of action screening with the earthworm <i>Lumbricus rubellus</i> . <i>Metabolomics</i> , <b>2009</b> , 5, 72-83	4.7	46
56	Nitrogen and carbon status are integrated at the transcriptional level by the nitrogen regulator NtrC in vivo. <i>MBio</i> , <b>2013</b> , 4, e00881-13	7.8	44
55	Between-person comparison of metabolite fitting for NMR-based quantitative metabolomics. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 8683-7	7.8	41
54	Development of QSARs to investigate the bacterial toxicity and biotransformation potential of aromatic heterocyclic compounds. <i>Chemosphere</i> , <b>2001</b> , 42, 885-92	8.4	40
53	Fluorodeoxyuridine affects the identification of metabolic responses to daf-2 status in <i>Caenorhabditis elegans</i> . <i>Mechanisms of Ageing and Development</i> , <b>2012</b> , 133, 46-9	5.6	39
52	Phenylalanine metabolism regulates reproduction and parasite melanization in the malaria mosquito. <i>PLoS ONE</i> , <b>2014</b> , 9, e84865	3.7	38
51	Low Serum Levels of MicroRNA-19 Are Associated with a Stricturing Crohn's Disease Phenotype. <i>Inflammatory Bowel Diseases</i> , <b>2015</b> , 21, 1926-34	4.5	37
50	Metabolic profiling of <i>Pseudomonas aeruginosa</i> demonstrates that the anti-sigma factor MucA modulates osmotic stress tolerance. <i>Molecular BioSystems</i> , <b>2010</b> , 6, 562-9		34
49	Investigation of the physiological relationship between the cyanide-insensitive oxidase and cyanide production in <i>Pseudomonas aeruginosa</i> . <i>Microbiology (United Kingdom)</i> , <b>2006</b> , 152, 1407-1415	2.9	34
48	Influence of the Crc regulator on the hierarchical use of carbon sources from a complete medium in <i>Pseudomonas</i> . <i>Environmental Microbiology</i> , <b>2016</b> , 18, 807-18	5.2	34
47	Metallothioneins may not be enough--the role of phytochelatins in invertebrate metal detoxification. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 885-6	10.3	33
46	Metabolism of 4-fluoroaniline and 4-fluorobiphenyl in the earthworm <i>Eisenia veneta</i> characterized by high-resolution NMR spectroscopy with directly coupled HPLC-NMR and HPLC-MS. <i>Xenobiotica</i> , <b>2002</b> , 32, 479-90	2	33
45	Remodelling of microRNAs in colorectal cancer by hypoxia alters metabolism profiles and 5-fluorouracil resistance. <i>Human Molecular Genetics</i> , <b>2017</b> , 26, 1552-1564	5.6	31
44	Metabolite profiling to characterize disease-related bacteria: gluconate excretion by <i>Pseudomonas aeruginosa</i> mutants and clinical isolates from cystic fibrosis patients. <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 15098-109	5.4	30
43	Comparison of response of six different luminescent bacterial bioassays to bioremediation of five contrasting oils. <i>Journal of Environmental Monitoring</i> , <b>2001</b> , 3, 404-10		30
42	Tissue disruption and extraction methods for metabolic profiling of an invertebrate sentinel species. <i>Metabolomics</i> , <b>2012</b> , 8, 819-830	4.7	27
41	Application of bioluminescence-based microbial biosensors to the ecotoxicity assessment of organotins. <i>Letters in Applied Microbiology</i> , <b>1997</b> , 25, 353-358	2.9	27
40	Metabolic consequences of p300 gene deletion in human colon cancer cells. <i>Cancer Research</i> , <b>2006</b> , 66, 7606-14	10.1	26

39	Modelling the acid/base H NMR chemical shift limits of metabolites in human urine. <i>Metabolomics</i> , <b>2016</b> , 12, 152	4.7	24
38	Ageing with elegans: a research proposal to map healthspan pathways. <i>Biogerontology</i> , <b>2016</b> , 17, 771-824	4.5	24
37	Earthworms produce phytochelatin in response to arsenic. <i>PLoS ONE</i> , <b>2013</b> , 8, e81271	3.7	23
36	. <i>Environmental Toxicology and Chemistry</i> , <b>2002</b> , 21, 1966	3.8	21
35	Statistical Correlations between NMR Spectroscopy and Direct Infusion FT-ICR Mass Spectrometry Aid Annotation of Unknowns in Metabolomics. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2583-9	7.8	20
34	Artificial microRNA-mediated knockdown of pyruvate formate lyase (PFL1) provides evidence for an active 3-hydroxybutyrate production pathway in the green alga <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biotechnology</i> , <b>2012</b> , 162, 57-66	3.7	20
33	Free glucosylglycerate is a novel marker of nitrogen stress in <i>Mycobacterium smegmatis</i> . <i>Journal of Proteome Research</i> , <b>2012</b> , 11, 3888-96	5.6	20
32	Identification of the Elusive Pyruvate Reductase of <i>Chlamydomonas reinhardtii</i> Chloroplasts. <i>Plant and Cell Physiology</i> , <b>2016</b> , 57, 82-94	4.9	19
31	Combining spectral ordering with peak fitting for one-dimensional NMR quantitative metabolomics. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 4605-12	7.8	18
30	Establishing principal soil quality parameters influencing earthworms in urban soils using bioassays. <i>Environmental Pollution</i> , <b>2005</b> , 133, 199-211	9.3	18
29	Metabolic Youth in Middle Age: Predicting Aging in <i>Caenorhabditis elegans</i> Using Metabolomics. <i>Journal of Proteome Research</i> , <b>2015</b> , 14, 4603-9	5.6	17
28	Metabolites and metals in Metazoa--what role do phytochelatin play in animals?. <i>Metallomics</i> , <b>2014</b> , 6, 1576-82	4.5	16
27	Biochemical diversity of betaines in earthworms. <i>Biochemical and Biophysical Research Communications</i> , <b>2013</b> , 430, 1306-11	3.4	16
26	Metabonomic assessment of toxicity of 4-fluoroaniline, 3,5-difluoroaniline and 2-fluoro-4-methylaniline to the earthworm <i>Eisenia veneta</i> (Rosa): identification of new endogenous biomarkers. <i>Environmental Toxicology and Chemistry</i> , <b>2002</b> , 21, 1966-72	3.8	15
25	Direct assessment of metabolite utilization by <i>Pseudomonas aeruginosa</i> during growth on artificial sputum medium. <i>Applied and Environmental Microbiology</i> , <b>2013</b> , 79, 2467-70	4.8	14
24	Hypertonic Saline Therapy in Cystic Fibrosis: Do Population Shifts Caused by the Osmotic Sensitivity of Infecting Bacteria Explain the Effectiveness of this Treatment?. <i>Frontiers in Microbiology</i> , <b>2010</b> , 1, 1205	5.7	14
23	Identifying biochemical phenotypic differences between cryptic species. <i>Biology Letters</i> , <b>2014</b> , 10,	3.6	12
22	Visualizing Antimicrobials in Bacterial Biofilms: Three-Dimensional Biochemical Imaging Using TOF-SIMS. <i>MSphere</i> , <b>2017</b> , 2,	5	12

21	Metabolic footprinting: extracellular metabolomic analysis. <i>Methods in Molecular Biology</i> , <b>2014</b> , 1149, 281-92	1.4	12
20	The cellular geometry of growth drives the amino acid economy of <i>Caenorhabditis elegans</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2009</b> , 276, 2747-54	4.4	12
19	Rapid screening of cellular stress responses in recombinant <i>Pichia pastoris</i> strains using metabolite profiling. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2017</b> , 44, 413-417	4.2	11
18	GlnK Facilitates the Dynamic Regulation of Bacterial Nitrogen Assimilation. <i>Biophysical Journal</i> , <b>2017</b> , 112, 2219-2230	2.9	11
17	Outdoor and indoor cadmium distributions near an abandoned smelting works and their relations to human exposure. <i>Environmental Pollution</i> , <b>2011</b> , 159, 3425-32	9.3	11
16	Sub-lethal cadmium exposure increases phytochelatin concentrations in the aquatic snail <i>Lymnaea stagnalis</i> . <i>Science of the Total Environment</i> , <b>2016</b> , 568, 1054-1058	10.2	11
15	Multivariate metabolic profiling using <sup>1</sup> H nuclear magnetic resonance spectroscopy of freeze-tolerant and freeze-intolerant earthworms exposed to frost. <i>Cryo-Letters</i> , <b>2003</b> , 24, 347-58	0.3	11
14	A metabolic trade-off between phosphate and glucose utilization in <i>Escherichia coli</i> . <i>Molecular BioSystems</i> , <b>2014</b> , 10, 2820-2		10
13	Translational arrest due to cytoplasmic redox stress delays adaptation to growth on methanol and heterologous protein expression in a typical fed-batch culture of <i>Pichia pastoris</i> . <i>PLoS ONE</i> , <b>2015</b> , 10, e0119637	3.7	10
12	The mutational structure of metabolism in <i>Caenorhabditis elegans</i> . <i>Evolution; International Journal of Organic Evolution</i> , <b>2016</b> , 70, 2239-2246	3.8	9
11	Limitations of a cosolvent for ecotoxicity testing of hydrophobic compounds. <i>Bulletin of Environmental Contamination and Toxicology</i> , <b>2003</b> , 70, 1-8	2.7	9
10	Ecological drivers influence the distributions of two cryptic lineages in an earthworm morphospecies. <i>Applied Soil Ecology</i> , <b>2016</b> , 108, 8-15	5	9
9	Aromatic metabolites from the coelomic fluid of <i>Eisenia</i> earthworm species. <i>European Journal of Soil Biology</i> , <b>2017</b> , 78, 17-19	2.9	7
8	ToF-SIMS analysis of biomolecules in the model organism <i>Caenorhabditis elegans</i> . <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 234-236	1.5	5
7	C Labeling of Nematode Worms to Improve Metabolome Coverage by Heteronuclear Nuclear Magnetic Resonance Experiments. <i>Frontiers in Molecular Biosciences</i> , <b>2019</b> , 6, 27	5.6	4
6	Profiling the metabolic signature of senescence. <i>Methods in Molecular Biology</i> , <b>2013</b> , 965, 355-71	1.4	4
5	Investigating the specificity of regulators of degradation of hydrocarbons and hydrocarbon-based compounds using structure-activity relationships. <i>Biodegradation</i> , <b>2000</b> , 11, 37-47	4.1	4
4	Pathway analysis in metabolomics: Recommendations for the use of over-representation analysis. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009105	5	4

3	Analysis and imaging of biocidal agrochemicals using ToF-SIMS. <i>Scientific Reports</i> , <b>2017</b> , 7, 10728	4.9	3
2	GlnK facilitates the dynamic regulation of bacterial nitrogen assimilation		1
1	Calm on the surface, dynamic on the inside. Molecular homeostasis of <i>Anabaena</i> sp. PCC 7120 nitrogen metabolism. <i>Plant, Cell and Environment</i> , <b>2021</b> , 44, 1885-1907	8.4	1