

Karan Uppal

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

4,638
citations

94269

37
h-index

123241

61
g-index

118
all docs

118
docs citations

118
times ranked

6118
citing authors

#	ARTICLE	IF	CITATIONS
1	xMSanalyzer: automated pipeline for improved feature detection and downstream analysis of large-scale, non-targeted metabolomics data. BMC Bioinformatics, 2013, 14, 15.	1.2	301
2	xMSannotator: An R Package for Network-Based Annotation of High-Resolution Metabolomics Data. Analytical Chemistry, 2017, 89, 1063-1067.	3.2	231
3	Computational Metabolomics: A Framework for the Million Metabolome. Chemical Research in Toxicology, 2016, 29, 1956-1975.	1.7	191
4	Reference Standardization for Mass Spectrometry and High-resolution Metabolomics Applications to Exposome Research. Toxicological Sciences, 2015, 148, 531-543.	1.4	186
5	The Gene Expression Barcode: leveraging public data repositories to begin cataloging the human and murine transcriptomes. Nucleic Acids Research, 2011, 39, D1011-D1015.	6.5	156
6	Molecular Transducers of Physical Activity Consortium (MoTrPAC): Mapping the Dynamic Responses to Exercise. Cell, 2020, 181, 1464-1474.	13.5	147
7	Plasma Metabolomics in Human Pulmonary Tuberculosis Disease: A Pilot Study. PLoS ONE, 2014, 9, e108854.	1.1	140
8	xMWAS: a data-driven integration and differential network analysis tool. Bioinformatics, 2018, 34, 701-702.	1.8	132
9	Reference Standardization for Quantification and Harmonization of Large-Scale Metabolomics. Analytical Chemistry, 2020, 92, 8836-8844.	3.2	116
10	Serum Metabolomics of Slow vs. Rapid Motor Progression Parkinson's Disease: a Pilot Study. PLoS ONE, 2013, 8, e77629.	1.1	110
11	High-Resolution Mapping of H1 Linker Histone Variants in Embryonic Stem Cells. PLoS Genetics, 2013, 9, e1003417.	1.5	106
12	Metabolic pathways of lung inflammation revealed by high-resolution metabolomics (HRM) of H1N1 influenza virus infection in mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2016, 311, R906-R916.	0.9	101
13	Metabolome-Wide Association Study of Neovascular Age-Related Macular Degeneration. PLoS ONE, 2013, 8, e72737.	1.1	99
14	Prenatal Exposure to Perfluoroalkyl Substances Associated With Increased Susceptibility to Liver Injury in Children. Hepatology, 2020, 72, 1758-1770.	3.6	90
15	High-resolution metabolomics of occupational exposure to trichloroethylene. International Journal of Epidemiology, 2016, 45, 1517-1527.	0.9	87
16	Metabolomics of ADSOL (AS-1) Red Blood Cell Storage. Transfusion Medicine Reviews, 2014, 28, 41-55.	0.9	83
17	Correlation of the lung microbiota with metabolic profiles in bronchoalveolar lavage fluid in HIV infection. Microbiome, 2016, 4, 3.	4.9	83
18	Perturbations of the arginine metabolome following exposures to traffic-related air pollution in a panel of commuters with and without asthma. Environment International, 2019, 127, 503-513.	4.8	78

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19	Arginine and Carnitine Metabolites Are Altered in Diabetic Retinopathy. , 2019, 60, 3119.		65
20	Metabolomic assessment of exposure to near-highway ultrafine particles. Journal of Exposure Science and Environmental Epidemiology, 2019, 29, 469-483.	1.8	65
21	Metabolome-Wide Association Study of Primary Open Angle Glaucoma. , 2015, 56, 5020.		63
22	Western diet induces colonic nitrenergic myenteric neuropathy and dysmotility in mice via saturated fatty acid and lipopolysaccharide-induced TLR4 signalling. Journal of Physiology, 2017, 595, 1831-1846.	1.3	63
23	Novel Metabolic Markers for the Risk of Diabetes Development in American Indians. Diabetes Care, 2015, 38, 220-227.	4.3	62
24	Maternal serum metabolome and traffic-related air pollution exposure in pregnancy. Environment International, 2019, 130, 104872.	4.8	60
25	High-Resolution Metabolomics Assessment of Military Personnel. Journal of Occupational and Environmental Medicine, 2016, 58, S53-S61.	0.9	58
26	Detection of differentially methylated gene promoters in failing and nonfailing human left ventricle myocardium using computation analysis. Physiological Genomics, 2013, 45, 597-605.	1.0	56
27	Defective metabolic programming impairs early neuronal morphogenesis in neural cultures and an organoid model of Leigh syndrome. Nature Communications, 2021, 12, 1929.	5.8	55
28	Selenium Supplementation Alters Hepatic Energy and Fatty Acid Metabolism in Mice. Journal of Nutrition, 2018, 148, 675-684.	1.3	51
29	Plasma metabolomics in adults with cystic fibrosis during a pulmonary exacerbation: A pilot randomized study of high-dose vitamin D 3 administration. Metabolism: Clinical and Experimental, 2017, 70, 31-41.	1.5	50
30	Metabolomics profile comparisons of irradiated and nonirradiated stored donor red blood cells. Transfusion, 2015, 55, 544-552.	0.8	49
31	Transcriptome metabolome wide association study (TMWAS) of maneb and paraquat neurotoxicity reveals network level interactions in toxicologic mechanism. Toxicology Reports, 2014, 1, 435-444.	1.6	48
32	Disturbed flow induces systemic changes in metabolites in mouse plasma: a metabolomics study using ApoE ^{-/-} mice with partial carotid ligation. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2015, 308, R62-R72.	0.9	48
33	Low-dose cadmium disrupts mitochondrial citric acid cycle and lipid metabolism in mouse lung. Free Radical Biology and Medicine, 2019, 131, 209-217.	1.3	47
34	Distinct amino acid and lipid perturbations characterize acute versus chronic malaria. JCI Insight, 2019, 4, .	2.3	46
35	High-resolution metabolomics to discover potential parasite-specific biomarkers in a Plasmodium falciparum erythrocytic stage culture system. Malaria Journal, 2015, 14, 122.	0.8	43
36	High-resolution plasma metabolomics analysis to detect Mycobacterium tuberculosis-associated metabolites that distinguish active pulmonary tuberculosis in humans. PLoS ONE, 2018, 13, e0205398.	1.1	42

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37	Myeloperoxidase oxidation of methionine associates with early cystic fibrosis lung disease. <i>European Respiratory Journal</i> , 2018, 52, 1801118.	3.1	41
38	Mitochondrial Metabolomics Using High-Resolution Fourier-Transform Mass Spectrometry. <i>Methods in Molecular Biology</i> , 2014, 1198, 43-73.	0.4	40
39	MetabNet: An R Package for Metabolic Association Analysis of High-Resolution Metabolomics Data. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 87.	2.0	40
40	Mitochondrial network responses in oxidative physiology and disease. <i>Free Radical Biology and Medicine</i> , 2018, 116, 31-40.	1.3	39
41	Metabolome-wide association study of phenylalanine in plasma of common marmosets. <i>Amino Acids</i> , 2015, 47, 589-601.	1.2	38
42	High-Resolution Metabolomics for Nutrition and Health Assessment of Armed Forces Personnel. <i>Journal of Occupational and Environmental Medicine</i> , 2016, 58, S80-S88.	0.9	37
43	The Carnitine Shuttle Pathway is Altered in Patients With Neovascular Age-Related Macular Degeneration. , 2018, 59, 4978.		37
44	Particulate metal exposures induce plasma metabolome changes in a commuter panel study. <i>PLoS ONE</i> , 2018, 13, e0203468.	1.1	37
45	Metabolomic profiles of plasma, exhaled breath condensate, and saliva are correlated with potential for air toxics detection. <i>Journal of Breath Research</i> , 2018, 12, 016008.	1.5	36
46	Microbial metabolite delta-valerobetaine is a diet-dependent obesogen. <i>Nature Metabolism</i> , 2021, 3, 1694-1705.	5.1	36
47	Deployment-Associated Exposure Surveillance With High-Resolution Metabolomics. <i>Journal of Occupational and Environmental Medicine</i> , 2016, 58, S12-S21.	0.9	34
48	Mitochondria in precision medicine; linking bioenergetics and metabolomics in platelets. <i>Redox Biology</i> , 2019, 22, 101165.	3.9	34
49	Pilot Metabolome-Wide Association Study of Benzo(a)pyrene in Serum From Military Personnel. <i>Journal of Occupational and Environmental Medicine</i> , 2016, 58, S44-S52.	0.9	32
50	A scalable workflow to characterize the human exposome. <i>Nature Communications</i> , 2021, 12, 5575.	5.8	31
51	Metabolic Pathways and Networks Associated With Tobacco Use in Military Personnel. <i>Journal of Occupational and Environmental Medicine</i> , 2016, 58, S111-S116.	0.9	28
52	Addressing the batch effect issue for LC/MS metabolomics data in data preprocessing. <i>Scientific Reports</i> , 2020, 10, 13856.	1.6	28
53	Selenium supplementation prevents metabolic and transcriptomic responses to cadmium in mouse lung. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 2417-2426.	1.1	26
54	Local false discovery rate estimation using feature reliability in LC/MS metabolomics data. <i>Scientific Reports</i> , 2015, 5, 17221.	1.6	24

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55	Characterization of plasma thiol redox potential in a common marmoset model of aging. <i>Redox Biology</i> , 2013, 1, 387-393.	3.9	23
56	Metabolic profiles of biological aging in American Indians: The strong heart family study. <i>Aging</i> , 2014, 6, 176-186.	1.4	22
57	Plasma Metabolomic Signatures of Chronic Obstructive Pulmonary Disease and the Impact of Genetic Variants on Phenotype-Driven Modules. <i>Network and Systems Medicine</i> , 2020, 3, 159-181.	2.7	22
58	Metabolic Characterization of the Common Marmoset (<i>Callithrix jacchus</i>). <i>PLoS ONE</i> , 2015, 10, e0142916.	1.1	22
59	Plasma metabolomics reveals membrane lipids, aspartate/asparagine and nucleotide metabolism pathway differences associated with chloroquine resistance in <i>Plasmodium vivax</i> malaria. <i>PLoS ONE</i> , 2017, 12, e0182819.	1.1	21
60	Transcriptome Analysis Reveals Distinct Responses to Physiologic versus Toxic Manganese Exposure in Human Neuroblastoma Cells. <i>Frontiers in Genetics</i> , 2019, 10, 676.	1.1	21
61	Phytochelatin database: a resource for phytochelatin complexes of nutritional and environmental metals. <i>Database: the Journal of Biological Databases and Curation</i> , 2019, 2019, .	1.4	20
62	Low-dose cadmium potentiates lung inflammatory response to 2009 pandemic H1N1 influenza virus in mice. <i>Environment International</i> , 2019, 127, 720-729.	4.8	19
63	Metabolomic Associations with Serum Bone Turnover Markers. <i>Nutrients</i> , 2020, 12, 3161.	1.7	19
64	Untargeted metabolomics reveals multiple metabolites influencing smoking-related DNA methylation. <i>Epigenomics</i> , 2018, 10, 379-393.	1.0	18
65	Metabolomics and adductomics of newborn bloodspots to retrospectively assess the early-life exposome. <i>Current Opinion in Pediatrics</i> , 2020, 32, 300-307.	1.0	18
66	Untargeted high-resolution plasma metabolomic profiling predicts outcomes in patients with coronary artery disease. <i>PLoS ONE</i> , 2020, 15, e0237579.	1.1	18
67	N ⁸ -Acetylspermidine: A Polyamine Biomarker in Ischemic Cardiomyopathy With Reduced Ejection Fraction. <i>Journal of the American Heart Association</i> , 2020, 9, e016055.	1.6	18
68	Putrescine as indicator of manganese neurotoxicity: Dose-response study in human SH-SY5Y cells. <i>Food and Chemical Toxicology</i> , 2018, 116, 272-280.	1.8	17
69	Metabolomic Responses to Manganese Dose in SH-SY5Y Human Neuroblastoma Cells. <i>Toxicological Sciences</i> , 2019, 169, 84-94.	1.4	17
70	Untargeted Metabolomics Screen of Mid-pregnancy Maternal Serum and Autism in Offspring. <i>Autism Research</i> , 2020, 13, 1258-1269.	2.1	17
71	Cardiovascular Risk and Resilience Among Black Adults: Rationale and Design of the MECA Study. <i>Journal of the American Heart Association</i> , 2020, 9, e015247.	1.6	17
72	Metabolic Profiles of Obesity in American Indians: The Strong Heart Family Study. <i>PLoS ONE</i> , 2016, 11, e0159548.	1.1	16

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73	Metabolomics of fescue toxicosis in grazing beef steers. <i>Food and Chemical Toxicology</i> , 2017, 105, 285-299.	1.8	16
74	Child serum metabolome and traffic-related air pollution exposure in pregnancy. <i>Environmental Research</i> , 2022, 203, 111907.	3.7	16
75	Comparative transcriptomics and metabolomics in a rhesus macaque drug administration study. <i>Frontiers in Cell and Developmental Biology</i> , 2014, 2, 54.	1.8	15
76	Hepatic fat is a stronger correlate of key clinical and molecular abnormalities than visceral and abdominal subcutaneous fat in youth. <i>BMJ Open Diabetes Research and Care</i> , 2020, 8, e001126.	1.2	15
77	Untargeted metabolomics reveal dysregulations in sugar, methionine, and tyrosine pathways in the prodromal state of AD. <i>Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring</i> , 2020, 12, e12064.	1.2	15
78	An atlas of metallome and metabolome interactions and associations with incident diabetes in the Strong Heart Family Study. <i>Environment International</i> , 2021, 157, 106810.	4.8	14
79	Plasma Metabolomics of Intermediate and Neovascular Age-Related Macular Degeneration Patients. <i>Cells</i> , 2021, 10, 3141.	1.8	13
80	Distribution of phytochelatins, metal-binding compounds, in plant foods: A survey of commonly consumed fruits, vegetables, grains and legumes. <i>Food Chemistry</i> , 2021, 339, 128051.	4.2	12
81	Nonmonotonic response of type 2 diabetes by low concentration organochlorine pesticide mixture: Findings from multi-omics in zebrafish. <i>Journal of Hazardous Materials</i> , 2021, 416, 125956.	6.5	12
82	A precision medicine approach to defining the impact of doxorubicin on the bioenergetic-metabolite interactome in human platelets. <i>Redox Biology</i> , 2020, 28, 101311.	3.9	11
83	Benzo[a]pyrene Perturbs Mitochondrial and Amino Acid Metabolism in Lung Epithelial Cells and Has Similar Correlations With Metabolic Changes in Human Serum. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S73-S81.	0.9	10
84	Metabolomics analysis of maternal serum exposed to high air pollution during pregnancy and risk of autism spectrum disorder in offspring. <i>Environmental Research</i> , 2021, 196, 110823.	3.7	10
85	CERC: an interactive content extraction, recognition, and construction tool for clinical and biomedical text. <i>BMC Medical Informatics and Decision Making</i> , 2020, 20, 306.	1.5	10
86	Metabolic Consequences of Chronic Alcohol Abuse in Non-Smokers: A Pilot Study. <i>PLoS ONE</i> , 2015, 10, e0129570.	1.1	8
87	Clinical recovery of <i>Macaca fascicularis</i> infected with <i>Plasmodium knowlesi</i> . <i>Malaria Journal</i> , 2021, 20, 486.	0.8	8
88	Advances in Comprehensive Exposure Assessment. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S5-S14.	0.9	7
89	Metabolomics profiling of tobacco exposure in children with cystic fibrosis. <i>Journal of Cystic Fibrosis</i> , 2020, 19, 791-800.	0.3	7
90	Analysis of Postdeployment Serum Samples Identifies Potential Biomarkers of Exposure to Burn Pits and Other Environmental Hazards. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S45-S54.	0.9	6

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91	Integrative Network Analysis Linking Clinical Outcomes With Environmental Exposures and Molecular Variations in Service Personnel Deployed to Balad and Bagram. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S65-S72.	0.9	6
92	Metabolome-Wide Association Study of Deployment to Balad, Iraq or Bagram, Afghanistan. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S25-S34.	0.9	6
93	A metabolomic study of cervical dystonia. <i>Parkinsonism and Related Disorders</i> , 2021, 82, 98-103.	1.1	6
94	Use of Biomarkers to Assess Environmental Exposures and Health Outcomes in Deployed Troops. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S1-S4.	0.9	5
95	Metabolomics Analysis of Aspirin's Effects in Human Colon Tissue and Associations with Adenoma Risk. <i>Cancer Prevention Research</i> , 2020, 13, 863-876.	0.7	5
96	Lipidome signatures of metastasis in a transgenic mouse model of sonic hedgehog medulloblastoma. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 7017-7027.	1.9	5
97	Environmental Chemicals Altered in Association With Deployment for High Risk Areas. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S15-S24.	0.9	4
98	Associations of Benzo(ghi)perylene and Heptachlorodibenzo-p-dioxin in Serum of Service Personnel Deployed to Balad, Iraq, and Bagram, Afghanistan Correlates With Perturbed Amino Acid Metabolism in Human Lung Fibroblasts. <i>Journal of Occupational and Environmental Medicine</i> , 2019, 61, S35-S44.	0.9	4
99	Time-course metabolomic analysis of manganese toxicity reveals biomarkers of oxidative stress and amino acid metabolism as early cellular targets. <i>Free Radical Biology and Medicine</i> , 2018, 128, S83.	1.3	3
100	Plasma Metabolic Phenotypes of HPV-Associated versus Smoking-Associated Head and Neck Cancer and Patient Survival. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2021, 30, 1858-1866.	1.1	3
101	Multiomics Analysis of Structural Magnetic Resonance Imaging of the Brain and Cerebrospinal Fluid Metabolomics in Cognitively Normal and Impaired Adults. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 796067.	1.7	3
102	Plasma Metabolomics of Common Marmosets (<i>Callithrix jacchus</i>) to Evaluate Diet and Feeding Husbandry. <i>Journal of the American Association for Laboratory Animal Science</i> , 2016, 55, 137-46.	0.6	2
103	Integration of Multi-Omics Data Reveal Dynamic Oxidative Stress Responses to Manganese in Human SH-SY5Y Neuroblastoma Cells. <i>Free Radical Biology and Medicine</i> , 2016, 100, S160.	1.3	1
104	Models of Metabolomic Networks. , 2021, , 134-142.		1
105	Sphinganine is associated with 24-h MAP in the non-sleepy with OSA. <i>Metabolomics</i> , 2022, 18, 23.	1.4	1
106	Incorporating feature reliability in false discovery rate estimation improves statistical power to detect differentially expressed features. , 2014, , .		0
107	M3. Topological Analyses of Metabolomic Data to Identify Markers of Early Psychosis and Disease Biotypes. <i>Schizophrenia Bulletin</i> , 2017, 43, S211-S212.	2.3	0
108	Manganese Stimulates Putrescine Accumulation and Influences Associated Polyamine, Methionine and Neurotransmitter Metabolism in Human SH-SY5Y Neuroblastoma Cells. <i>Free Radical Biology and Medicine</i> , 2017, 112, 163.	1.3	0

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109	Mechanisms integrating lifelong exposure and health. , 2020, , 405-426.		0
110	A Novel Metabolomics Risk Score Associated with Sex-Sifferences in Heart Failure. Journal of Cardiac Failure, 2020, 26, S3-S4.	0.7	0