Hector C Keun

List of Publications by Year
in descending order

130 papers	10,727 citations	36299 51 h-index	33889 99 g-index
136 all docs	136 docs citations	136 times ranked	14543 citing authors

#	Article	IF	Citations
1	Metabolic profiling, metabolomic and metabonomic procedures for NMR spectroscopy of urine, plasma, serum and tissue extracts. Nature Protocols, 2007, 2, 2692-2703.	12.0	1,830
2	Metabolic Profiling of Human Colorectal Cancer Using High-Resolution Magic Angle Spinning Nuclear Magnetic Resonance (HR-MAS NMR) Spectroscopy and Gas Chromatography Mass Spectrometry (GC/MS). Journal of Proteome Research, 2009, 8, 352-361.	3.7	414
3	Contemporary issues in toxicology the role of metabonomics in toxicology and its evaluation by the COMET project. Toxicology and Applied Pharmacology, 2003, 187, 137-146.	2.8	374
4	High-resolution magic-angle-spinning NMR spectroscopy for metabolic profiling of intact tissues. Nature Protocols, 2010, 5, 1019-1032.	12.0	355
5	The Human Early-Life Exposome (HELIX): Project Rationale and Design. Environmental Health Perspectives, 2014, 122, 535-544.	6.0	280
6	The Consortium for Metabonomic Toxicology (COMET): aims, activities and achievements. Pharmacogenomics, 2005, 6, 691-699.	1.3	277
7	Analytical Reproducibility in ^{1}H NMR-Based Metabonomic Urinalysis. Chemical Research in Toxicology, 2002, 15, 1380-1386.	3.3	261
8	Summary recommendations for standardization and reporting of metabolic analyses. Nature Biotechnology, 2005, 23, 833-838.	17.5	261
9	Impact of Analytical Bias in Metabonomic Studies of Human Blood Serum and Plasma. Analytical Chemistry, 2006, 78, 4307-4318.	6.5	226
10	Interlaboratory Reproducibility of a Targeted Metabolomics Platform for Analysis of Human Serum and Plasma. Analytical Chemistry, 2017, 89, 656-665.	6.5	203
11	Cryogenic Probe 13C NMR Spectroscopy of Urine for Metabonomic Studies. Analytical Chemistry, 2002, 74, 4588-4593.	6.5	200
12	Improved analysis of multivariate data by variable stability scaling: application to NMR-based metabolic profiling. Analytica Chimica Acta, 2003, 490, 265-276.	5.4	164
13	Prediction and Classification of Drug Toxicity Using Probabilistic Modeling of Temporal Metabolic Data:Â The Consortium on Metabonomic Toxicology Screening Approach. Journal of Proteome Research, 2007, 6, 4407-4422.	3.7	164
14	Metabolomics in toxicology and preclinical research. ALTEX: Alternatives To Animal Experimentation, 2013, 30, 209-225.	1.5	164
15	Human Early Life Exposome (HELIX) study: a European population-based exposome cohort. BMJ Open, 2018, 8, e021311.	1.9	161
16	Spectral editing and pattern recognition methods applied to high-resolution magic-angle spinning 1H nuclear magnetic resonance spectroscopy of liver tissues. Analytical Biochemistry, 2003, 323, 26-32.	2.4	144
17	Geometric Trajectory Analysis of Metabolic Responses To Toxicity Can Define Treatment Specific Profiles. Chemical Research in Toxicology, 2004, 17, 579-587.	3.3	143
18	NMR-based metabonomic toxicity classification: hierarchical cluster analysis and k-nearest-neighbour approaches. Analytica Chimica Acta, 2003, 490, 3-15.	5.4	142

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19	Direct quantitative trait locus mapping of mammalian metabolic phenotypes in diabetic and normoglycemic rat models. Nature Genetics, 2007, 39, 666-672.	21.4	140
20	Metabonomic modeling of drug toxicity. , 2006, 109, 92-106.		139
21	Performance in Omics Analyses of Blood Samples in Long-Term Storage: Opportunities for the Exploitation of Existing Biobanks in Environmental Health Research. Environmental Health Perspectives, 2013, 121, 480-487.	6.0	132
22	Comparative metabonomics of differential hydrazine toxicity in the rat and mouse. Toxicology and Applied Pharmacology, 2005, 204, 135-151.	2.8	125
23	In-utero and childhood chemical exposome in six European mother-child cohorts. Environment International, 2018, 121, 751-763.	10.0	122
24	Metabolic profiling detects early effects of environmental and lifestyle exposure to cadmium in a human population. BMC Medicine, 2012, 10, 61.	5.5	121
25	Citrate transport and metabolism in mammalian cells. BioEssays, 2009, 31, 10-20.	2.5	116
26	Meeting-in-the-middle using metabolic profiling â€" a strategy for the identification of intermediate biomarkers in cohort studies. Biomarkers, 2011, 16, 83-88.	1.9	113
27	Diurnal rhythms in the human urine metabolome during sleep and total sleep deprivation. Scientific Reports, 2015, 5, 14843.	3.3	110
28	Choline-releasing glycerophosphodiesterase EDI3 drives tumor cell migration and metastasis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8155-8160.	7.1	109
29	Determinants of the urinary and serum metabolome in children from six European populations. BMC Medicine, 2018, 16, 202.	5.5	107
30	1H HR-MAS NMR Spectroscopy of Tumor-Induced Local Metabolic â€œField-Effectsâ€•Enables Colorectal Cancer Staging and Prognostication. Journal of Proteome Research, 2013, 12, 959-968.	3.7	103
31	Pharmacometabonomic Profiling as a Predictor of Toxicity in Patients with Inoperable Colorectal Cancer Treated with Capecitabine. Clinical Cancer Research, 2011, 17, 3019-3028.	7.0	102
32	Inhibition of monocarboxyate transporter 1 by AZD3965 as a novel therapeutic approach for diffuse large B-cell lymphoma and Burkitt lymphoma. Haematologica, 2017, 102, 1247-1257.	3.5	100
33	Metabolic Profile Biomarkers of Metal Contamination in a Sentinel Terrestrial Species Are Applicable Across Multiple Sites. Environmental Science & Technology, 2007, 41, 4458-4464.	10.0	96
34	Prenatal Exposure to Perfluoroalkyl Substances Associated With Increased Susceptibility to Liver Injury in Children. Hepatology, 2020, 72, 1758-1770.	7.3	90
35	Ultra Performance Liquid Chromatography-Mass Spectrometry Profiling of Bile Acid Metabolites in Biofluids: Application to Experimental Toxicology Studies. Analytical Chemistry, 2010, 82, 5282-5289.	6.5	89
36	^{1}H NMR Spectroscopy-Based Interventional Metabolic Phenotyping: A Cohort Study of Rheumatoid Arthritis Patients. Journal of Proteome Research, 2010, 9, 4545-4553.	3.7	88

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37	Alterations of Choline Phospholipid Metabolism in Endometrial Cancer Are Caused by Choline Kinase Alpha Overexpression and a Hyperactivated Deacylation Pathway. Cancer Research, 2014, 74, 6867-6877.	0.9	87
38	Identification of genomic biomarkers for anthracycline-induced cardiotoxicity in human iPSC-derived cardiomyocytes: an in vitro repeated exposure toxicity approach for safety assessment. Archives of Toxicology, 2016, 90, 2763-2777.	4.2	87
39	Astrocyte adenosine deaminase loss increases motor neuron toxicity in amyotrophic lateral sclerosis. Brain, 2019, 142, 586-605.	7.6	84
40	Consensus-Phenotype Integration of Transcriptomic and Metabolomic Data Implies a Role for Metabolism in the Chemosensitivity of Tumour Cells. PLoS Computational Biology, 2011, 7, e1001113.	3.2	83
41	Toxicity classification from metabonomic data using a density superposition approach: 'CLOUDS'. Analytica Chimica Acta, 2003, 490, 109-122.	5.4	76
42	NMR-Based Metabolic Profiling Identifies Biomarkers of Liver Regeneration Following Partial Hepatectomy in the Rat. Journal of Proteome Research, 2010, 9, 59-69.	3.7	75
43	Metabolomic Analysis Reveals Increased Aerobic Glycolysis and Amino Acid Deficit in a Cellular Model of Amyotrophic Lateral Sclerosis. Molecular Neurobiology, 2016, 53, 2222-2240.	4.0	71
44	Standard reporting requirements for biological samples in metabolomics experiments: mammalian/inÂvivo experiments. Metabolomics, 2007, 3, 179-188.	3.0	67
45	Lipid degradation promotes prostate cancer cell survival. Oncotarget, 2017, 8, 38264-38275.	1.8	64
46	The carcinoGENOMICS project: Critical selection of model compounds for the development of omics-based in vitro carcinogenicity screening assays. Mutation Research - Reviews in Mutation Research, 2008, 659, 202-210.	5.5	60
47	Robust Algorithms for Automated Chemical Shift Calibration of 1D 1H NMR Spectra of Blood Serum. Analytical Chemistry, 2008, 80, 7158-7162.	6.5	58
48	Application of metabonomics in drug development. Pharmacogenomics, 2007, 8, 731-741.	1.3	57
49	Genetic algorithms for simultaneous variable and sample selection in metabonomics. Bioinformatics, 2009, 25, 112-118.	4.1	56
50	Intracellular Staphylococcus aureus Modulates Host Central Carbon Metabolism To Activate Autophagy. MSphere, 2018, 3, .	2.9	56
51	Temporal Metabonomic Modeling of l-Arginine-Induced Exocrine Pancreatitis. Journal of Proteome Research, 2008, 7, 4435-4445.	3.7	55
52	Serum Molecular Signatures of Weight Change during Early Breast Cancer Chemotherapy. Clinical Cancer Research, 2009, 15, 6716-6723.	7.0	55
53	Heteronuclear ^{19}Fâ^{1}H Statistical Total Correlation Spectroscopy as a Tool in Drug Metabolism: Study of Flucloxacillin Biotransformation. Analytical Chemistry, 2008, 80, 1073-1079.	6.5	53
54	Urine Metabolic Signatures of Multiple Environmental Pollutants in Pregnant Women: An Exposome Approach. Environmental Science & Technology, 2018, 52, 13469-13480.	10.0	53

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55	Metabolic profiling of rodent biological fluids via 1H NMR spectroscopy using a 1 mm microlitre probe. Analyst, The, 2002, 127, 582-584.	3.5	48
56	Metabolic signatures of malignant progression in prostate epithelial cells. International Journal of Biochemistry and Cell Biology, 2011, 43, 1002-1009.	2.8	47
57	The early-life exposome and epigenetic age acceleration in children. Environment International, 2021, 155, 106683.	10.0	47
58	Metabolic Profiling Detects Field Effects in Nondysplastic Tissue from Esophageal Cancer Patients. Cancer Research, 2010, 70, 9129-9136.	0.9	45
59	Intra- and Interlaboratory Reproducibility of Ultra Performance Liquid Chromatographyâ€"Time-of-Flight Mass Spectrometry for Urinary Metabolic Profiling. Analytical Chemistry, 2012, 84, 2424-2432.	6.5	44
60	Metabolomic evaluation of rat liver and testis to characterize the toxicity of triazole fungicides. Metabolomics, 2006, 2, 63-73.	3.0	43
61	diXa: a data infrastructure for chemical safety assessment. Bioinformatics, 2015, 31, 1505-1507.	4.1	40
62	Metabolic profiling in human exposome studies. Mutagenesis, 2015, 30, gev060.	2.6	40
63	Mechanistic Aspects and Novel Biomarkers of Responder and Non-Responder Phenotypes in Galactosamine-Induced Hepatitis. Journal of Proteome Research, 2009, 8, 5175-5187.	3.7	39
64	Suppression of MTHFD2 in MCF-7 Breast Cancer Cells Increases Glycolysis, Dependency on Exogenous Glycine, and Sensitivity to Folate Depletion. Journal of Proteome Research, 2016, 15, 2618-2625.	3.7	38
65	Cluster Analysis Statistical Spectroscopy Using Nuclear Magnetic Resonance Generated Metabolic Data Sets from Perturbed Biological Systems. Analytical Chemistry, 2009, 81, 6581-6589.	6.5	36
66	Detection of Metabolic Alterations in Non-tumor Gastrointestinal Tissue of the *Apc*[Min/+] Mouse by ^{1}H MAS NMR Spectroscopy. Journal of Proteome Research, 2009, 8, 1423-1430.	3.7	34
67	Plasma Metabolomic Profiles of Breast Cancer Patients after Short-term Limonene Intervention. Cancer Prevention Research, 2015, 8, 86-93.	1.5	34
68	Omics-based responses induced by bosentan in human hepatoma HepaRG cell cultures. Archives of Toxicology, 2018, 92, 1939-1952.	4.2	34
69	Chiral Metabonomics: 1H NMR-Based Enantiospecific Differentiation of Metabolites in Human Urine via Direct Cosolvation with Î²-Cyclodextrin. Analytical Chemistry, 2012, 84, 2868-2874.	6.5	33
70	p53 Loss in MYC-Driven Neuroblastoma Leads to Metabolic Adaptations Supporting Radioresistance. Cancer Research, 2016, 76, 3025-3035.	0.9	33
71	The coordinated action of VCP/p97 and GCN2 regulates cancer cell metabolism and proteostasis during nutrient limitation. Oncogene, 2019, 38, 3216-3231.	5.9	33
72	Metabolic profiling of transgenic adenocarcinoma of mouse prostate (TRAMP) Tissue by [1]Hâ€"NMR analysis: evidence for unusual phospholipid metabolism. Prostate, 2008, 68, 1035-1047.	2.3	32

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73	Nuclear Magnetic Resonance (NMR)-Based Metabolomics. Methods in Molecular Biology, 2011, 708, 321-334.	0.9	32
74	Lactic acidosis induces resistance to the pan-Akt inhibitor uprosertib in colon cancer cells. British Journal of Cancer, 2020, 122, 1298-1308.	6.4	32
75	Indisulam targets RNA splicing and metabolism to serve as a therapeutic strategy for high-risk neuroblastoma. Nature Communications, 2022, 13, 1380.	12.8	32
76	RNA–binding motif protein 39 (RBM39): An emerging cancer target. British Journal of Pharmacology, 2022, 179, 2795-2812.	5.4	31
77	Metabolic Characterization of *Leishmania major* Infection in Activated and Nonactivated Macrophages.. Journal of Proteome Research, 2012, 11, 4211-4222.	3.7	30
78	Assessment of metabolic phenotypic variability in children's urine using 1H NMR spectroscopy. Scientific Reports, 2017, 7, 46082.	3.3	30
79	Acetaminophen cytotoxicity in HepG2 cells is associated with a decoupling of glycolysis from the TCA cycle, loss of NADPH production, and suppression of anabolism. Archives of Toxicology, 2019, 93, 341-353.	4.2	29
80	Metabonomic analysis of ovarian tumour cyst fluid by proton nuclear magnetic resonance spectroscopy. Oncotarget, 2016, 7, 7216-7226.	1.8	29
81	MicroRNAs as biomarkers for prostate cancer prognosis: a systematic review and a systematic reanalysis of public data. British Journal of Cancer, 2022, 126, 502-513.	6.4	28
82	Metabolite signatures of doxorubicin induced toxicity in human induced pluripotent stem cell-derived cardiomyocytes. Amino Acids, 2017, 49, 1955-1963.	2.7	27
83	Serum metabolomic pertubations among workers exposed to 2,3,7,8–tetrachlorodibenzo–*p*–dioxin (TCDD). Environmental and Molecular Mutagenesis, 2013, 54, 558-565.	2.2	26
84	A Systems Oncology Approach Identifies NT5E as a Key Metabolic Regulator in Tumor Cells and Modulator of Platinum Sensitivity. Journal of Proteome Research, 2016, 15, 280-290.	3.7	26
85	Biofluid metabonomics using ^{1}H NMR spectroscopy: the road to biomarker discovery in gastroenterology and hepatology. Expert Review of Gastroenterology and Hepatology, 2012, 6, 239-251.	3.0	25
86	Enhanced triacylglycerol catabolism by carboxylesterase 1 promotes aggressive colorectal carcinoma. Journal of Clinical Investigation, 2021, 131, .	8.2	25
87	Metabolic signatures of greater body size and their associations with risk of colorectal and endometrial cancers in the European Prospective Investigation into Cancer and Nutrition. BMC Medicine, 2021, 19, 101.	5.5	24
88	Advancing tools for human early lifecourse exposome research and translation (ATHLETE). Environmental Epidemiology, 2021, 5, e166.	3.0	24
89	Influence of glutathione-*S*-transferase (GST) inhibition on lung epithelial cell injury: role of oxidative stress and metabolism. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 308, L1274-L1285.	2.9	23
90	Metabolomic characterisation of the effects of oncogenic PIK3CA transformation in a breast epithelial cell line. Scientific Reports, 2017, 7, 46079.	3.3	23

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91	A model-based assay design to reproduce in vivo patterns of acute drug-induced toxicity. Archives of Toxicology, 2018, 92, 553-555.	4.2	23
92	Variability of multi-omics profiles in a population-based child cohort. BMC Medicine, 2021, 19, 166.	5.5	23
93	Prospective analysis of circulating metabolites and endometrial cancer risk. Gynecologic Oncology, 2021, 162, 475-481.	1.4	23
94	Blood-based omic profiling supports female susceptibility to tobacco smoke-induced cardiovascular diseases. Scientific Reports, 2017, 7, 42870.	3.3	22
95	In utero and childhood exposure to tobacco smoke and multi-layer molecular signatures in children. BMC Medicine, 2020, 18, 243.	5.5	22
96	Pivotal Role for Two Electron Reduction in 2,3-Dimethoxy-1,4-naphthoquinone and 2-Methyl-1,4-naphthoquinone Metabolism and Kinetics in Vivo That Prevents Liver Redox Stress. Chemical Research in Toxicology, 2009, 22, 717-725.	3.3	20
97	Altered Metabolic Profiles Associate with Toxicity in SOD1G93A Astrocyte-Neuron Co-Cultures. Scientific Reports, 2017, 7, 50.	3.3	20
98	Phase I expansion study of the first-in-class monocarboxylate transporter 1 (MCT1) inhibitor AZD3965 in patients with diffuse large B-cell lymphoma (DLBCL) and Burkitt lymphoma (BL).. Journal of Clinical Oncology, 2021, 39, 3115-3115.	1.6	20
99	A case of malignant hyperlactaemic acidosis appearing upon treatment with the mono-carboxylase transporter 1 inhibitor AZD3965. British Journal of Cancer, 2020, 122, 1141-1145.	6.4	19
100	convISA: A simple, convoluted method for isotopomer spectral analysis of fatty acids and cholesterol. Metabolic Engineering, 2015, 32, 125-132.	7.0	18
101	Metabolic characterization of colorectal cancer cells harbouring different KRAS mutations in codon 12, 13, 61 and 146 using human SW48 isogenic cell lines. Metabolomics, 2020, 16, 51.	3.0	18
102	Systems level profiling of chemotherapy-induced stress resolution in cancer cells reveals druggable trade-offs. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	18
103	Simultaneous targeting of glycolysis and oxidative phosphorylation as a therapeutic strategy to treat diffuse large B-cell lymphoma. British Journal of Cancer, 2022, 127, 937-947.	6.4	18
104	Metabolomic Characterization of Nipple Aspirate Fluid by ^{1}H NMR Spectroscopy and GC-MS. Journal of Proteome Research, 2014, 13, 883-889.	3.7	17
105	Predictive modelling using pathway scores: robustness and significance of pathway collections. BMC Bioinformatics, 2019, 20, 543.	2.6	17
106	The impact of p53 on aristolochic acid I-induced nephrotoxicity and DNA damage in vivo and in vitro. Archives of Toxicology, 2019, 93, 3345-3366.	4.2	16
107	Opportunities at the Interface of Network Science and Metabolic Modeling. Frontiers in Bioengineering and Biotechnology, 2020, 8, 591049.	4.1	15
108	Evaluation of urinary ribonucleoside profiling for clinical biomarker discovery using constant neutral loss scanning liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2011, 25, 2071-2082.	1.5	14

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109	Metabonomic Analysis of Water Extracts from Different Angelica Roots by 1H-Nuclear Magnetic Resonance Spectroscopy. Molecules, 2014, 19, 3460-3470.	3.8	14
110	Intracellular Staphylococcus aureus Elicits the Production of Host Very Long-Chain Saturated Fatty Acids with Antimicrobial Activity. Metabolites, 2019, 9, 148.	2.9	14
111	Spinal Cord Metabolic Signatures in Models of Fast- and Slow-Progressing SOD1G93A Amyotrophic Lateral Sclerosis. Frontiers in Neuroscience, 2019, 13, 1276.	2.8	14
112	Î²-Hydroxybutyrate Oxidation Promotes the Accumulation of Immunometabolites in Activated Microglia Cells. Metabolites, 2020, 10, 346.	2.9	14
113	Preâ€diagnostic blood immune markers, incidence and progression of Bâ€cell lymphoma and multiple myeloma: Univariate and functionally informed multivariate analyses. International Journal of Cancer, 2018, 143, 1335-1347.	5.1	13
114	Effect of the Histone Deacetylase Inhibitor Trichostatin A on the Metabolome of Cultured Primary Hepatocytes. Journal of Proteome Research, 2010, 9, 413-419.	3.7	12
115	CYP3A7*1C allele is associated with reduced levels of 2-hydroxylation pathway oestrogen metabolites. British Journal of Cancer, 2017, 116, 382-388.	6.4	11
116	Over-representation of correlation analysis (ORCA): a method for identifying associations between variable sets. Bioinformatics, 2015, 31, 102-108.	4.1	9
117	Tracing Nutrient Flux Following Monocarboxylate Transporter-1 Inhibition with AZD3965. Cancers, 2020, 12, 1703.	3.7	8
118	The 14q32 maternally imprinted locus is a major source of longitudinally stable circulating microRNAs as measured by small RNA sequencing. Scientific Reports, 2019, 9, 15787.	3.3	7
119	The Impact of p53 on Aristolochic Acid I-Induced Gene Expression In Vivo. International Journal of Molecular Sciences, 2019, 20, 6155.	4.1	7
120	Urinary metabolite quantitative trait loci in children and their interaction with dietary factors. Human Molecular Genetics, 2021, 29, 3830-3844.	2.9	7
121	Circulating sphingosine-1-phosphate inversely correlates with chemotherapy-induced weight gain during early breast cancer. Breast Cancer Research and Treatment, 2010, 124, 543-549.	2.5	6
122	Urinary metabolic biomarkers of diet quality in European children are associated with metabolic health. ELife, 2022, 11, .	6.0	6
123	Plasma metabolic profiling reveals age-dependency of systemic effects of green tea polyphenols in mice with and without prostate cancer. Molecular BioSystems, 2010, 6, 1911.	2.9	5
124	Evaluation of ^{1}H NMR Metabolic Profiling Using Biofluid Mixture Design. Analytical Chemistry, 2013, 85, 6674-6681.	6.5	5
125	Metabolomic Studies of Patient Material by High-Resolution Magic Angle Spinning Nuclear Magnetic Resonance Spectroscopy. Methods in Enzymology, 2014, 543, 297-313.	1.0	5
126	Persistence of Epigenomic Effects After Recovery From Repeated Treatment With Two Nephrocarcinogens. Frontiers in Genetics, 2018, 9, 558.	2.3	4

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127	Reply to Moestue et al.: Untangling the contribution of choline metabolism to the metastatic process. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, .	7.1	2
128	T cell inhibitory mechanisms in a model of aggressive Non-Hodgkin's Lymphoma. OncoImmunology, 2018, 7, e1365997.	4.6	2
129	Metabonomics study of the effects of single copy mutant KRAS in the presence or absence of WT allele using human HCT116 isogenic cell lines. Metabolomics, 2021, 17, 104.	3.0	1
130	Integrated Systems Level Examination of Proteasome Inhibitor Stress Recovery in Myeloma Cells Reveals Druggable Vulnerabilities Linked to Multiple Metabolic Processes. Blood, 2019, 134, 1818-1818.	1.4	0