Naila Rabbani

List of Publications by Citations

115 papers	6,621 citations	45 h-index	80 g-index
126 ext. papers	7,599 ext. citations	5.7 avg, IF	6.33 L-index

#	Paper	IF	Citations
115	Tissue-specific glucose toxicity induces mitochondrial damage in a burn injury model of critical illness. *Critical Care Medicine*, **2009**, 37, 1355-64	1.4	579
114	Methylglyoxal modification of Nav1.8 facilitates nociceptive neuron firing and causes hyperalgesia in diabetic neuropathy. *Nature Medicine*, **2012**, 18, 926-33	50.5	339
113	Methylglyoxal, glyoxalase 1 and the dicarbonyl proteome. *Amino Acids*, **2012**, 42, 1133-42	3.5	285
112	Dicarbonyl stress in cell and tissue dysfunction contributing to ageing and disease. *Biochemical and Biophysical Research Communications*, **2015**, 458, 221-6	3.4	214
111	Transcriptional control of glyoxalase 1 by Nrf2 provides a stress-responsive defence against dicarbonyl glycation. *Biochemical Journal*, **2012**, 443, 213-22	3.8	209
110	C. elegans as model for the study of high glucose- mediated life span reduction. *Diabetes*, **2009**, 58, 2450-6	3.9	206
109	Activation of NF-E2-related factor-2 reverses biochemical dysfunction of endothelial cells induced by hyperglycemia linked to vascular disease. *Diabetes*, **2008**, 57, 2809-17	0.9	194
108	Glyoxalase in diabetes, obesity and related disorders. *Seminars in Cell and Developmental Biology*, **2011**, 22, 309-17	7.5	178
107	High glucose increases angiopoietin-2 transcription in microvascular endothelial cells through methylglyoxal modification of mSin3A. *Journal of Biological Chemistry*, **2007**, 282, 31038-45	5.4	174
106	High prevalence of low plasma thiamine concentration in diabetes linked to a marker of vascular disease. *Diabetologia*, **2007**, 50, 2164-70	10.3	171
105	Measurement of methylglyoxal by stable isotopic dilution analysis LC-MS/MS with corroborative prediction in physiological samples. *Nature Protocols*, **2014**, 9, 1969-79	18.8	144
104	Advanced glycation end products in the pathogenesis of chronic kidney disease. *Kidney International*, **2018**, 93, 803-813	9.9	142
103	Glyoxalase in ageing. *Seminars in Cell and Developmental Biology*, **2011**, 22, 293-301	7.5	133
102	Improved Glycemic Control and Vascular Function in Overweight and Obese Subjects by Glyoxalase 1 Inducer Formulation. *Diabetes*, **2016**, 65, 2282-94	0.9	132
101	Dicarbonyls linked to damage in the powerhouse: glycation of mitochondrial proteins and oxidative stress. *Biochemical Society Transactions*, **2008**, 36, 1045-50	5.1	129
100	Glyoxalase in tumourigenesis and multidrug resistance. *Seminars in Cell and Developmental Biology*, **2011**, 22, 318-25	7.5	127
99	Advanced glycation end products in extracellular matrix proteins contribute to the failure of sensory nerve regeneration in diabetes. *Diabetes*, **2009**, 58, 2893-903	0.9	127

98	Involvement of a gut-retina axis in protection against dietary glycemia-induced age-related macular degeneration. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E4472-E4481	11.5	117
97	High-dose thiamine therapy for patients with type 2 diabetes and microalbuminuria: a randomised, double-blind placebo-controlled pilot study. *Diabetologia*, **2009**, 52, 208-12	10.3	116
96	Glycation of LDL by methylglyoxal increases arterial atherogenicity: a possible contributor to increased risk of cardiovascular disease in diabetes. *Diabetes*, **2011**, 60, 1973-80	0.9	109
95	The critical role of methylglyoxal and glyoxalase 1 in diabetic nephropathy. *Diabetes*, **2014**, 63, 50-2	0.9	100
94	Dicarbonyls and glyoxalase in disease mechanisms and clinical therapeutics. *Glycoconjugate Journal*, **2016**, 33, 513-25	3	99
93	Increased protein damage in renal glomeruli, retina, nerve, plasma and urine and its prevention by thiamine and benfotiamine therapy in a rat model of diabetes. *Diabetologia*, **2010**, 53, 1506-16	10.3	99
92	Glycation research in amino acids: a place to call home. *Amino Acids*, **2012**, 42, 1087-96	3.5	95
91	Methylglyoxal-induced dicarbonyl stress in aging and disease: first steps towards glyoxalase 1-based treatments. *Clinical Science*, **2016**, 130, 1677-96	6.5	94
90	Dicarbonyl proteome and genome damage in metabolic and vascular disease. *Biochemical Society Transactions*, **2014**, 42, 425-32	5.1	93
89	Detection of oxidized and glycated proteins in clinical samples using mass spectrometry--a user's perspective. *Biochimica Et Biophysica Acta - General Subjects*, **2014**, 1840, 818-29	4	89
88	Increased glycation and oxidative damage to apolipoprotein B100 of LDL cholesterol in patients with type 2 diabetes and effect of metformin. *Diabetes*, **2010**, 59, 1038-45	0.9	87
87	Imidazopurinones are markers of physiological genomic damage linked to DNA instability and glyoxalase 1-associated tumour multidrug resistance. *Nucleic Acids Research*, **2010**, 38, 5432-42	20.1	79
86	Activity, regulation, copy number and function in the glyoxalase system. *Biochemical Society Transactions*, **2014**, 42, 419-24	5.1	69
85	The dicarbonyl proteome: proteins susceptible to dicarbonyl glycation at functional sites in health, aging, and disease. *Annals of the New York Academy of Sciences*, **2008**, 1126, 124-7	6.5	65
84	Alpha-synuclein deficiency leads to increased glyoxalase I expression and glycation stress. *Cellular and Molecular Life Sciences*, **2011**, 68, 721-33	10.3	64
83	Accumulation of free adduct glycation, oxidation, and nitration products follows acute loss of renal function. *Kidney International*, **2007**, 72, 1113-21	9.9	64
82	Quantitative measurement of specific biomarkers for protein oxidation, nitration and glycation in Arabidopsis leaves. *Plant Journal*, **2009**, 59, 661-71	6.9	60
81	Diabetes is associated with posttranslational modifications in plasminogen resulting in reduced plasmin generation and enzyme-specific activity. *Blood*, **2013**, 122, 134-42	2.2	59

80	Measurement of glyoxalase activities. *Biochemical Society Transactions*, **2014**, 42, 491-4	5.1	56
79	Assay of methylglyoxal-derived protein and nucleotide AGEs. *Biochemical Society Transactions*, **2014**, 42, 511-7	5.1	54
78	Frequency Modulated Translocational Oscillations of Nrf2 Mediate the Antioxidant Response Element Cytoprotective Transcriptional Response. *Antioxidants and Redox Signaling*, **2015**, 23, 613-29	8.4	53
77	Highlights and hotspots of protein glycation in end-stage renal disease. *Seminars in Dialysis*, **2009**, 22, 400-4	2.5	52
76	Mass spectrometric determination of early and advanced glycation in biology. *Glycoconjugate Journal*, **2016**, 33, 553-68	3	50
75	Hyperglycemic kidney damage in an animal model of prolonged critical illness. *Kidney International*, **2009**, 76, 512-20	9.9	50
74	Arginine-directed glycation and decreased HDL plasma concentration and functionality. *Nutrition and Diabetes*, **2014**, 4, e134	4.7	48
73	Protein oxidation, nitration and glycation biomarkers for early-stage diagnosis of osteoarthritis of the knee and typing and progression of arthritic disease. *Arthritis Research and Therapy*, **2016**, 18, 250	5.7	46
72	Aging-dependent reduction in glyoxalase 1 delays wound healing. *Gerontology*, **2013**, 59, 427-37	5.5	46
71	Dicarbonyl stress in clinical obesity. *Glycoconjugate Journal*, **2016**, 33, 581-9	3	45
70	Multiple roles of glyoxalase 1-mediated suppression of methylglyoxal glycation in cancer biology-Involvement in tumour suppression, tumour growth, multidrug resistance and target for chemotherapy. *Seminars in Cancer Biology*, **2018**, 49, 83-93	12.7	44
69	Advanced glycation endproducts, dityrosine and arginine transporter dysfunction in autism - a source of biomarkers for clinical diagnosis. *Molecular Autism*, **2018**, 9, 3	6.5	43
68	Glyoxalase 1 Modulation in Obesity and Diabetes. *Antioxidants and Redox Signaling*, **2019**, 30, 354-374	8.4	40
67	Reversal of hyperglycemia-induced angiogenesis deficit of human endothelial cells by overexpression of glyoxalase 1 in vitro. *Annals of the New York Academy of Sciences*, **2008**, 1126, 262-4	6.5	39
66	Activation of the unfolded protein response in high glucose treated endothelial cells is mediated by methylglyoxal. *Scientific Reports*, **2019**, 9, 7889	4.9	37
65	Biomarkers of early stage osteoarthritis, rheumatoid arthritis and musculoskeletal health. *Scientific Reports*, **2015**, 5, 9259	4.9	37
64	Serum levels of advanced glycation endproducts and other markers of protein damage in early diabetic nephropathy in type 1 diabetes. *PLoS ONE*, **2012**, 7, e35655	3.7	36
63	Emerging role of thiamine therapy for prevention and treatment of early-stage diabetic nephropathy. *Diabetes, Obesity and Metabolism*, **2011**, 13, 577-83	6.7	34

62	Glyoxalase II does not support methylglyoxal detoxification but serves as a general trypanothione thioesterase in African trypanosomes. *Molecular and Biochemical Parasitology*, **2009**, 163, 19-27	1.9	34
61	Glucose-induced down regulation of thiamine transporters in the kidney proximal tubular epithelium produces thiamine insufficiency in diabetes. *PLoS ONE*, **2012**, 7, e53175	3.7	33
60	Differential effects of glyoxalase 1 overexpression on diabetic atherosclerosis and renal dysfunction in streptozotocin-treated, apolipoprotein E-deficient mice. *Physiological Reports*, **2014**, 2, e12043	2.6	30
59	Possible role of methylglyoxal and glyoxalase in arthritis. *Biochemical Society Transactions*, **2014**, 42, 538-42	5.1	28
58	Glyoxalase Centennial conference: introduction, history of research on the glyoxalase system and future prospects. *Biochemical Society Transactions*, **2014**, 42, 413-8	5.1	27
57	Protein damage in diabetes and uremia--identifying hotspots of proteome damage where minimal modification is amplified to marked pathophysiological effect. *Free Radical Research*, **2011**, 45, 89-100	4	26
56	Hexokinase-2 Glycolytic Overload in Diabetes and Ischemia-Reperfusion Injury. *Trends in Endocrinology and Metabolism*, **2019**, 30, 419-431	8.8	25
55	Studies of advanced glycation end products and oxidation biomarkers for type 2 diabetes. *BioFactors*, **2018**, 44, 281-288	6.1	25
54	Increased DNA dicarbonyl glycation and oxidation markers in patients with type 2 diabetes and link to diabetic nephropathy. *Journal of Diabetes Research*, **2015**, 2015, 915486	3.9	24
53	Assay of 3-nitrotyrosine in tissues and body fluids by liquid chromatography with tandem mass spectrometric detection. *Methods in Enzymology*, **2008**, 440, 337-59	1.7	24
52	Glyoxalase 1-knockdown in human aortic endothelial cells - effect on the proteome and endothelial function estimates. *Scientific Reports*, **2016**, 6, 37737	4.9	23
51	The uremic toxin oxythiamine causes functional thiamine deficiency in end-stage renal disease by inhibiting transketolase activity. *Kidney International*, **2016**, 90, 396-403	9.9	23
50	Assay of methylglyoxal and glyoxal and control of peroxidase interference. *Biochemical Society Transactions*, **2014**, 42, 504-10	5.1	22
49	Quantitation of plasma thiamine, related metabolites and plasma protein oxidative damage markers in children with autism spectrum disorder and healthy controls. *Free Radical Research*, **2016**, 50, S85-S90	4	21
48	Effect of Irbesartan treatment on plasma and urinary markers of protein damage in patients with type 2 diabetes and microalbuminuria. *Amino Acids*, **2012**, 42, 1627-39	3.5	19
47	Reappraisal of putative glyoxalase 1-deficient mouse and dicarbonyl stress on embryonic stem cells in vitro. *Biochemical Journal*, **2016**, 473, 4255-4270	3.8	19
46	A fluorogenic assay for methylglyoxal. *Biochemical Society Transactions*, **2014**, 42, 548-55	5.1	18
45	Sulforaphane Delays Fibroblast Senescence by Curbing Cellular Glucose Uptake, Increased Glycolysis, and Oxidative Damage. *Oxidative Medicine and Cellular Longevity*, **2018**, 2018, 5642148	6.7	18

44	Disturbance of B-vitamin status in people with type 2 diabetes in Indonesia--link to renal status, glycemic control and vascular inflammation. *Diabetes Research and Clinical Practice*, **2012**, 95, 415-24	7.4	17
43	Intracellular Accumulation of Methylglyoxal by Glyoxalase 1 Knock Down Alters Collagen Homoeostasis in L6 Myoblasts. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	16
42	Quantitation of Markers of Protein Damage by Glycation, Oxidation, and Nitration in Peritoneal Dialysis. *Peritoneal Dialysis International*, **2009**, 29, 51-56	2.8	16
41	Copy number variation of glyoxalase I. *Biochemical Society Transactions*, **2014**, 42, 500-3	5.1	14
40	Dicarbonyls (Glyoxal, Methylglyoxal, and 3-Deoxyglucosone)177-192		14
39	Vulnerabilities of the SARS-CoV-2 Virus to Proteotoxicity-Opportunity for Repurposed Chemotherapy of COVID-19 Infection. *Frontiers in Pharmacology*, **2020**, 11, 585408	5.6	13
38	Glycation marker glucosepane increases with the progression of osteoarthritis and correlates with morphological and functional changes of cartilage in vivo. *Arthritis Research and Therapy*, **2018**, 20, 131	5.7	13
37	Frequency modulated translocational oscillations of Nrf2, a transcription factor functioning like a wireless sensor. *Biochemical Society Transactions*, **2015**, 43, 669-73	5.1	13
36	Hidden complexities in the measurement of fructosyl-lysine and advanced glycation end products for risk prediction of vascular complications of diabetes. *Diabetes*, **2015**, 64, 9-11	0.9	12
35	Proteomic identification and characterization of hepatic glyoxalase 1 dysregulation in non-alcoholic fatty liver disease. *Proteome Science*, **2018**, 16, 4	2.6	12
34	Dietary and synthetic activators of the antistress gene response in treatment of renal disease. *Journal of Renal Nutrition*, **2012**, 22, 195-202	3	11
33	Urinary Metabolomic Markers of Protein Glycation, Oxidation, and Nitration in Early-Stage Decline in Metabolic, Vascular, and Renal Health. *Oxidative Medicine and Cellular Longevity*, **2019**, 2019, 4851323	6.7	10
32	Reversal of Insulin Resistance in Overweight and Obese Subjects by -Resveratrol and Hesperetin Combination-Link to Dysglycemia, Blood Pressure, Dyslipidemia, and Low-Grade Inflammation. *Nutrients*, **2021**, 13,	6.7	10
31	Study of an unusual advanced glycation end-product (AGE) derived from glyoxal using mass spectrometry. *Journal of the American Society for Mass Spectrometry*, **2014**, 25, 673-83	3.5	9
30	Measurement of glyoxalase gene expression. *Biochemical Society Transactions*, **2014**, 42, 495-9	5.1	9
29	Determination of types and binding sites of advanced glycation end products for substance P. *Analytical Chemistry*, **2012**, 84, 10568-75	7.8	9
28	Reading patterns of proteome damage by glycation, oxidation and nitration: quantitation by stable isotopic dilution analysis LC-MS/MS. *Essays in Biochemistry*, **2020**, 64, 169-183	7.6	9
27	Glycolytic overload-driven dysfunction of periodontal ligament fibroblasts in high glucose concentration, corrected by glyoxalase 1 inducer. *BMJ Open Diabetes Research and Care*, **2020**, 8,	4.5	8

26	Protein Glycation in Plants-An Under-Researched Field with Much Still to Discover. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
25	A low glycemic diet protects disease-prone Nrf2-deficient mice against age-related macular degeneration. *Free Radical Biology and Medicine*, **2020**, 150, 75-86	7.8	8
24	Relation of the protein glycation, oxidation and nitration to the osteocalcin level in obese subjects. *Acta Biochimica Polonica*, **2017**, 64, 415-422	2	7
23	Dicarbonyl stress, protein glycation and the unfolded protein response. *Glycoconjugate Journal*, **2021**, 38, 331-340	3	7
22	Protein glycation - biomarkers of metabolic dysfunction and early-stage decline in health in the era of precision medicine. *Redox Biology*, **2021**, 42, 101920	11.3	7
21	Potential Markers of Dietary Glycemic Exposures for Sustained Dietary Interventions in Populations without Diabetes. *Advances in Nutrition*, **2020**, 11, 1221-1236	10	6
20	Oxygen restriction as challenge test reveals early high-fat-diet-induced changes in glucose and lipid metabolism. *Pflugers Archiv European Journal of Physiology*, **2015**, 467, 1179-93	4.6	6
19	Thiamine in diabetic nephropathy: a novel treatment modality? Reply to Alkhalaf A, Kleefstra N, Groenier KH et al. [letter]. *Diabetologia*, **2009**, 52, 1214-1216	10.3	6
18	Preparation of nucleotide advanced glycation endproducts--imidazopurinone adducts formed by glycation of deoxyguanosine with glyoxal and methylglyoxal. *Annals of the New York Academy of Sciences*, **2008**, 1126, 280-2	6.5	6
17	Glyoxalase 1 copy number variation in patients with well differentiated gastro-entero-pancreatic neuroendocrine tumours (GEP-NET). *Oncotarget*, **2017**, 8, 76961-76973	3.3	4
16	Emerging Glycation-Based Therapeutics-Glyoxalase 1 Inducers and Glyoxalase 1 Inhibitors.. *International Journal of Molecular Sciences*, **2022**, 23,	6.3	4
15	Dicarbonyl stress and the glyoxalase system **2020**, 759-777		3
14	Methylglyoxal modification of LDL: proatherogenicity without oxidation opens new paths to prevent cardiovascular disease. *Clinical Lipidology*, **2011**, 6, 631-634		2
13	Severe thiamine deficiency complicated by weight loss protects against renal ischaemia-reperfusion injury in rats. *CKJ: Clinical Kidney Journal*, **2009**, 2, 182-3	4.5	2
12	Vulnerabilities of the SARS-CoV-2 virus to proteotoxicity □pportunity for repurposed chemotherapy of COVID-19 infection		2
11	High fractional excretion of glycation adducts is associated with subsequent early decline in renal function in type 1 diabetes. *Scientific Reports*, **2020**, 10, 12709	4.9	2
10	Quantitation of markers of protein damage by glycation, oxidation, and nitration in peritoneal dialysis. *Peritoneal Dialysis International*, **2009**, 29 Suppl 2, S51-6	2.8	2
9	Advanced Glycation Endproducts (AGEs) **2012**, 293-304		1

8	Studies of Glyoxalase 1-Linked Multidrug Resistance Reveal Glycolysis-Derived Reactive Metabolite, Methylglyoxal, Is a Common Contributor in Cancer Chemotherapy Targeting the Spliceosome. *Frontiers in Oncology*, **2021**, 11, 748698	5.3	1
7	Hexokinase-2-Linked Glycolytic Overload and Unscheduled Glycolysis-Driver of Insulin Resistance and Development of Vascular Complications of Diabetes.. *International Journal of Molecular Sciences*, **2022**, 23,	6.3	1
6	186-OR: Risk Prediction of Early Decline in Renal Function in Diabetic Kidney Disease with Algorithm Including Fractional Excretion of Glycated Amino Acids. *Diabetes*, **2021**, 70, 186-OR	0.9	0
5	Glycation- and/or Polyol Pathway-Inducing Complications **2018**, 170-179		0
4	Glycation of Proteins **2016**, 307-332		
3	Factors influencing the development and effectiveness of biomarkers in rheumatoid arthritis and osteoarthritis. *International Journal of Clinical Rheumatology*, **2015**, 10, 313-316	1.5	
2	Oxidative Modification of Proteins: An Overview **2010**, 137-156		
1	Thiamine in Diabetic Renal Disease: Dietary Insufficiency, Renal Washout, Antistress Gene Response, Therapeutic Supplements, Risk Predictor, and Link to Genetic Susceptibility **2011**, 93-104		