

# Nir Barzilai

## 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.

123  
papers

9,381  
citations

48  
h-index

96  
g-index

140  
ext. papers

12,324  
ext. citations

10.1  
avg, IF

6.2  
L-index

#	Paper	IF	Citations
123	Chronic inflammation in the etiology of disease across the life span. <i>Nature Medicine</i> , <b>2019</b> , 25, 1822-1832	30.5	830
122	The genetic architecture of type 2 diabetes. <i>Nature</i> , <b>2016</b> , 536, 41-47	50.4	704
121	A nutrient-sensing pathway regulates leptin gene expression in muscle and fat. <i>Nature</i> , <b>1998</b> , 393, 684-850	50.4	676
120	Metformin as a Tool to Target Aging. <i>Cell Metabolism</i> , <b>2016</b> , 23, 1060-1065	24.6	513
119	The critical role of metabolic pathways in aging. <i>Diabetes</i> , <b>2012</b> , 61, 1315-22	0.9	489
118	Removal of visceral fat prevents insulin resistance and glucose intolerance of aging: an adipokine-mediated process?. <i>Diabetes</i> , <b>2002</b> , 51, 2951-8	0.9	442
117	Unique lipoprotein phenotype and genotype associated with exceptional longevity. <i>JAMA - Journal of the American Medical Association</i> , <b>2003</b> , 290, 2030-40	27.4	433
116	Interventions to Slow Aging in Humans: Are We Ready?. <i>Aging Cell</i> , <b>2015</b> , 14, 497-510	9.9	373
115	Motoric cognitive risk syndrome: multicountry prevalence and dementia risk. <i>Neurology</i> , <b>2014</b> , 83, 718-26	26.5	233
114	Genome-wide analysis identifies 12 loci influencing human reproductive behavior. <i>Nature Genetics</i> , <b>2016</b> , 48, 1462-1472	36.3	198
113	Undulating changes in human plasma proteome profiles across the lifespan. <i>Nature Medicine</i> , <b>2019</b> , 25, 1843-1850	50.5	195
112	Functional variants in the gene confer shared effects on risk for Crohn's disease and Parkinson's disease. <i>Science Translational Medicine</i> , <b>2018</b> , 10,	17.5	165
111	Humanin: a novel central regulator of peripheral insulin action. <i>PLoS ONE</i> , <b>2009</b> , 4, e6334	3.7	160
110	Benefits of Metformin in Attenuating the Hallmarks of Aging. <i>Cell Metabolism</i> , <b>2020</b> , 32, 15-30	24.6	149
109	Exome sequencing of 20,791 cases of type 2 diabetes and 24,440 controls. <i>Nature</i> , <b>2019</b> , 570, 71-76	50.4	129
108	Leptin resistance during aging is independent of fat mass. <i>Diabetes</i> , <b>2002</b> , 51, 1016-21	0.9	128
107	Experimental intrauterine growth restriction induces alterations in DNA methylation and gene expression in pancreatic islets of rats. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 15111-15118	5.4	126

106	Naturally occurring mitochondrial-derived peptides are age-dependent regulators of apoptosis, insulin sensitivity, and inflammatory markers. <i>Aging</i> , <b>2016</b> , 8, 796-809	5.6	125
105	Sequencing an Ashkenazi reference panel supports population-targeted personal genomics and illuminates Jewish and European origins. <i>Nature Communications</i> , <b>2014</b> , 5, 4835	17.4	115
104	A framework for selection of blood-based biomarkers for geroscience-guided clinical trials: report from the TAME Biomarkers Workgroup. <i>GeroScience</i> , <b>2018</b> , 40, 419-436	8.9	111
103	A meta-analysis of genome-wide association studies identifies multiple longevity genes. <i>Nature Communications</i> , <b>2019</b> , 10, 3669	17.4	102
102	Offspring of centenarians have a favorable lipid profile. <i>Journal of the American Geriatrics Society</i> , <b>2001</b> , 49, 76-9	5.6	97
101	The insulin/IGF-1 signaling in mammals and its relevance to human longevity. <i>Experimental Gerontology</i> , <b>2005</b> , 40, 873-7	4.5	94
100	Motoric cognitive risk syndrome: Multicenter incidence study. <i>Neurology</i> , <b>2014</b> , 83, 2278-84	6.5	93
99	Buffering mechanisms in aging: a systems approach toward uncovering the genetic component of aging. <i>PLoS Computational Biology</i> , <b>2007</b> , 3, e170	5	93
98	Genome-Wide Scan Informed by Age-Related Disease Identifies Loci for Exceptional Human Longevity. <i>PLoS Genetics</i> , <b>2015</b> , 11, e1005728	6	86
97	The Somatotropic Axis in Human Aging: Framework for the Current State of Knowledge and Future Research. <i>Cell Metabolism</i> , <b>2016</b> , 23, 980-989	24.6	81
96	Lifestyle factors of people with exceptional longevity. <i>Journal of the American Geriatrics Society</i> , <b>2011</b> , 59, 1509-12	5.6	79
95	Effect of Longevity Genetic Variants on the Molecular Aging Rate. <i>Innovation in Aging</i> , <b>2020</b> , 4, 852-852	0.1	78
94	The Hypothalamic-Pituitary-Testicular Axis in Exceptionally Old Men. <i>Journal of the Endocrine Society</i> , <b>2021</b> , 5, A727-A727	0.4	78
93	INVESTIGATING DYNAMICS OF AGE-ASSOCIATED TRANSCRIPTIONAL NETWORKS WITH INTERVENTIONS TARGETING AGING. <i>Innovation in Aging</i> , <b>2019</b> , 3, S559-S559	0.1	78
92	Metformin regulates metabolic and nonmetabolic pathways in skeletal muscle and subcutaneous adipose tissues of older adults. <i>Aging Cell</i> , <b>2018</b> , 17, e12723	9.9	72
91	Disease drivers of aging. <i>Annals of the New York Academy of Sciences</i> , <b>2016</b> , 1386, 45-68	6.5	72
90	Genetics, lifestyle and longevity: Lessons from centenarians. <i>Applied &amp; Translational Genomics</i> , <b>2015</b> , 4, 23-32		69
89	System-wide Benefits of Intermeal Fasting by Autophagy. <i>Cell Metabolism</i> , <b>2017</b> , 26, 856-871.e5	24.6	66

88	The effect of leptin on Lep expression is tissue-specific and nutritionally regulated. <i>Nature Medicine</i> , <b>1999</b> , 5, 895-9	50.5	65
87	Interaction between aging and syndrome X: new insights on the pathophysiology of fat distribution. <i>Annals of the New York Academy of Sciences</i> , <b>1999</b> , 892, 58-72	6.5	61
86	Aging is associated with resistance to effects of leptin on fat distribution and insulin action. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2002</b> , 57, B225-31	6.4	60
85	Late-life targeting of the IGF-1 receptor improves healthspan and lifespan in female mice. <i>Nature Communications</i> , <b>2018</b> , 9, 2394	17.4	57
84	Biological approaches to mechanistically understand the healthy life span extension achieved by calorie restriction and modulation of hormones. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2009</b> , 64, 187-91	6.4	57
83	Disrupting mitochondrial-nuclear coevolution affects OXPHOS complex I integrity and impacts human health. <i>Genome Biology and Evolution</i> , <b>2014</b> , 6, 2665-80	3.9	56
82	APOE Alleles and Extreme Human Longevity. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2019</b> , 74, 44-51	6.4	55
81	Aging as a Biological Target for Prevention and Therapy. <i>JAMA - Journal of the American Medical Association</i> , <b>2018</b> , 320, 1321-1322	27.4	53
80	Resveratrol Improves Vascular Function and Mitochondrial Number but Not Glucose Metabolism in Older Adults. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2017</b> , 72, 1703-1709	6.4	52
79	Compression of Morbidity Is Observed Across Cohorts with Exceptional Longevity. <i>Journal of the American Geriatrics Society</i> , <b>2016</b> , 64, 1583-91	5.6	52
78	Ability of insulin to modulate hepatic glucose production in aging rats is impaired by fat accumulation. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2000</b> , 278, E985-91	6	48
77	Motoric Cognitive Risk Syndrome and Falls Risk: A Multi-Center Study. <i>Journal of Alzheimer's Disease</i> , <b>2016</b> , 53, 1043-52	4.3	48
76	Genetic studies reveal the role of the endocrine and metabolic systems in aging. <i>Journal of Clinical Endocrinology and Metabolism</i> , <b>2010</b> , 95, 4493-500	5.6	46
75	Insights into the genetic epidemiology of Crohn's and rare diseases in the Ashkenazi Jewish population. <i>PLoS Genetics</i> , <b>2018</b> , 14, e1007329	6	41
74	Enhanced activation of a "nutrient-sensing" pathway with age contributes to insulin resistance. <i>FASEB Journal</i> , <b>2008</b> , 22, 3450-7	0.9	41
73	A Frameshift in CSF2RB Predominant Among Ashkenazi Jews Increases Risk for Crohn's Disease and Reduces Monocyte Signaling via GM-CSF. <i>Gastroenterology</i> , <b>2016</b> , 151, 710-723.e2	13.3	40
72	The GH receptor exon 3 deletion is a marker of male-specific exceptional longevity associated with increased GH sensitivity and taller stature. <i>Science Advances</i> , <b>2017</b> , 3, e1602025	14.3	38
71	The place of genetics in ageing research. <i>Nature Reviews Genetics</i> , <b>2012</b> , 13, 589-94	30.1	36

70	Exceptional parental longevity associated with lower risk of Alzheimer's disease and memory decline. <i>Journal of the American Geriatrics Society</i> , <b>2010</b> , 58, 1043-9	5.6	35
69	Development of Clinical Trials to Extend Healthy Lifespan. <i>Cardiovascular Endocrinology and Metabolism</i> , <b>2018</b> , 7, 80-83	2.5	35
68	Screening Human Embryos for Polygenic Traits Has Limited Utility. <i>Cell</i> , <b>2019</b> , 179, 1424-1435.e8	56.2	34
67	Symptoms of Apathy Independently Predict Incident Frailty and Disability in Community-Dwelling Older Adults. <i>Journal of Clinical Psychiatry</i> , <b>2017</b> , 78, e529-e536	4.6	33
66	Evaluating Health Span in Preclinical Models of Aging and Disease: Guidelines, Challenges, and Opportunities for Geroscience. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2016</b> , 71, 1395-1406	6.4	32
65	Positive attitude toward life, emotional expression, self-rated health, and depressive symptoms among centenarians and near-centenarians. <i>Aging and Mental Health</i> , <b>2016</b> , 20, 930-9	3.5	29
64	A Low-Frequency Inactivating Variant Enriched in the Finnish Population Is Associated With Fasting Insulin Levels and Type 2 Diabetes Risk. <i>Diabetes</i> , <b>2017</b> , 66, 2019-2032	0.9	29
63	Central insulin-like growth factor-1 (IGF-1) restores whole-body insulin action in a model of age-related insulin resistance and IGF-1 decline. <i>Aging Cell</i> , <b>2016</b> , 15, 181-6	9.9	29
62	Activation-Induced Autophagy Is Preserved in CD4+ T-Cells in Familial Longevity. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2017</b> , 72, 1201-1206	6.4	27
61	Genetic landscape of APOE in human longevity revealed by high-throughput sequencing. <i>Mechanisms of Ageing and Development</i> , <b>2016</b> , 155, 7-9	5.6	27
60	Clinical Trials Targeting Aging and Age-Related Multimorbidity. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2017</b> , 72, 355-361	6.4	26
59	The mitochondrial derived peptide humanin is a regulator of lifespan and healthspan. <i>Aging</i> , <b>2020</b> , 12, 11185-11199	5.6	26
58	Dissecting the Mechanisms Underlying Unusually Successful Human Health Span and Life Span. <i>Cold Spring Harbor Perspectives in Medicine</i> , <b>2015</b> , 6, a025098	5.4	25
57	Sarcosine Is Uniquely Modulated by Aging and Dietary Restriction in Rodents and Humans. <i>Cell Reports</i> , <b>2018</b> , 25, 663-676.e6	10.6	24
56	Identification of genes promoting skin youthfulness by genome-wide association study. <i>Journal of Investigative Dermatology</i> , <b>2014</b> , 134, 651-657	4.3	23
55	Aging does not contribute to the decline in insulin action on storage of muscle glycogen in rats. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2000</b> , 278, R111-7	3.2	23
54	Sequence data and association statistics from 12,940 type 2 diabetes cases and controls. <i>Scientific Data</i> , <b>2017</b> , 4, 170179	8.2	22
53	Lower circulating insulin-like growth factor-I is associated with better cognition in females with exceptional longevity without compromise to muscle mass and function. <i>Aging</i> , <b>2016</b> , 8, 2414-2424	5.6	20

52	Phenotypes and genotypes of high density lipoprotein cholesterol in exceptional longevity. <i>Current Vascular Pharmacology</i> , <b>2014</b> , 12, 690-7	3.3	20
51	Effects of FOXO3 Polymorphisms on Survival to Extreme Longevity in Four Centenarian Studies. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2018</b> , 73, 1439-1447	6.4	18
50	ICC-dementia (International Centenarian Consortium - dementia): an international consortium to determine the prevalence and incidence of dementia in centenarians across diverse ethnorracial and sociocultural groups. <i>BMC Neurology</i> , <b>2016</b> , 16, 52	3.1	18
49	Advanced aging phenotype is revealed by epigenetic modifications in rat liver after in utero malnutrition. <i>Aging Cell</i> , <b>2016</b> , 15, 964-72	9.9	17
48	High-depth whole genome sequencing of an Ashkenazi Jewish reference panel: enhancing sensitivity, accuracy, and imputation. <i>Human Genetics</i> , <b>2018</b> , 137, 343-355	6.3	16
47	Plasma proteomic profile of age, health span, and all-cause mortality in older adults. <i>Aging Cell</i> , <b>2020</b> , 19, e13250	9.9	16
46	Association of exceptional parental longevity and physical function in aging. <i>Age</i> , <b>2014</b> , 36, 9677		15
45	Insulin-like Growth Factor-1 and IGF Binding Proteins Predict All-Cause Mortality and Morbidity in Older Adults. <i>Cells</i> , <b>2020</b> , 9,	7.9	14
44	Effect of Exceptional Parental Longevity and Lifestyle Factors on Prevalence of Cardiovascular Disease in Offspring. <i>American Journal of Cardiology</i> , <b>2017</b> , 120, 2170-2175	3	13
43	Frailty and Risk of Incident Motoric Cognitive Risk Syndrome. <i>Journal of Alzheimer's Disease</i> , <b>2019</b> , 71, S85-S93	4.3	13
42	Targeting senescence. <i>Nature Medicine</i> , <b>2018</b> , 24, 1092-1094	50.5	12
41	Genetic Insights Into Frailty: Association of 9p21-23 Locus With Frailty. <i>Frontiers in Medicine</i> , <b>2018</b> , 5, 105	4.9	11
40	ARDD 2020: from aging mechanisms to interventions. <i>Aging</i> , <b>2020</b> , 12, 24484-24503	5.6	11
39	Metformin alters skeletal muscle transcriptome adaptations to resistance training in older adults. <i>Aging</i> , <b>2020</b> , 12, 19852-19866	5.6	10
38	Plasma proteomic profile of frailty. <i>Aging Cell</i> , <b>2020</b> , 19, e13193	9.9	10
37	Varying Effects of APOE Alleles on Extreme Longevity in European Ethnicities. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2019</b> , 74, S45-S51	6.4	10
36	Association of anti-inflammatory cytokine IL10 polymorphisms with motoric cognitive risk syndrome in an Ashkenazi Jewish population. <i>Neurobiology of Aging</i> , <b>2017</b> , 58, 238.e1-238.e8	5.6	9
35	The rationale for delaying aging and the prevention of age-related diseases. <i>Rambam Maimonides Medical Journal</i> , <b>2012</b> , 3, e0020	1.8	9

34	The influence of gender on inheritance of exceptional longevity. <i>Aging</i> , <b>2015</b> , 7, 412-8	5.6	9
33	Genetics of extreme human longevity to guide drug discovery for healthy ageing. <i>Nature Metabolism</i> , <b>2020</b> , 2, 663-672	14.6	9
32	Novel ultra-rare exonic variants identified in a founder population implicate cadherins in schizophrenia. <i>Neuron</i> , <b>2021</b> , 109, 1465-1478.e4	13.9	8
31	A geroscience perspective on immune resilience and infectious diseases: a potential case for metformin. <i>GeroScience</i> , <b>2021</b> , 43, 1093-1112	8.9	8
30	Differential burden of rare protein truncating variants in Alzheimer's disease patients compared to centenarians. <i>Human Molecular Genetics</i> , <b>2016</b> , 25, 3096-3105	5.6	7
29	Creating the Next Generation of Translational Geroscientists. <i>Journal of the American Geriatrics Society</i> , <b>2019</b> , 67, 1934-1939	5.6	7
28	Genetic variation in Sirtuin 1 (SIRT1) is associated with lipid profiles but not with longevity in Ashkenazi Jews. <i>Translational Research</i> , <b>2015</b> , 165, 480-1	11	7
27	Intracellular pathways of insulin-mediated glucose uptake before and after puberty in conscious rats. <i>Pediatric Research</i> , <b>1997</b> , 41, 340-5	3.2	7
26	New Locus for Skin Intrinsic Fluorescence in Type 1 Diabetes Also Associated With Blood and Skin Glycated Proteins. <i>Diabetes</i> , <b>2016</b> , 65, 2060-71	0.9	7
25	Association of Family History of Exceptional Longevity With Decline in Physical Function in Aging. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , <b>2017</b> , 72, 1649-1655	6.4	6
24	Latest advances in aging research and drug discovery. <i>Aging</i> , <b>2019</b> , 11, 9971-9981	5.6	6
23	Einstein Institute for Aging Research: collaborative and programmatic approaches in the search for successful aging. <i>Experimental Gerontology</i> , <b>2004</b> , 39, 151-7	4.5	5
22	Redox-mediated regulation of aging and healthspan by an evolutionarily conserved transcription factor HLH-2/Tcf3/E2A. <i>Redox Biology</i> , <b>2020</b> , 32, 101448	11.3	5
21	Determinants of penetrance and variable expressivity in monogenic metabolic conditions across 77,184 exomes. <i>Nature Communications</i> , <b>2021</b> , 12, 3505	17.4	5
20	Association between Sleep Patterns and Health in Families with Exceptional Longevity. <i>Frontiers in Medicine</i> , <b>2017</b> , 4, 214	4.9	4
19	Rare genetic coding variants associated with human longevity and protection against age-related diseases. <i>Nature Aging</i> , <b>2021</b> , 1, 783-794		4
18	The role of dietary patterns and exceptional parental longevity in healthy aging. <i>Nutrition and Healthy Aging</i> , <b>2017</b> , 4, 247-254	1.3	3
17	Similar burden of pathogenic coding variants in exceptionally long-lived individuals and individuals without exceptional longevity. <i>Aging Cell</i> , <b>2020</b> , 19, e13216	9.9	3

16	Effect of longevity genetic variants on the molecular aging rate. <i>GeroScience</i> , <b>2021</b> , 43, 1237-1251	8.9	3
15	Modulation of Glucose Production by Central Insulin Requires IGF-1 Receptors in AgRP Neurons. <i>Diabetes</i> , <b>2021</b> , 70, 2237-2249	0.9	2
14	Genetic signature of human longevity in PKC and NF- $\kappa$ B signaling. <i>Aging Cell</i> , <b>2021</b> , 20, e13362	9.9	2
13	PopCluster: an algorithm to identify genetic variants with ethnicity-dependent effects. <i>Bioinformatics</i> , <b>2019</b> , 35, 3046-3054	7.2	2
12	Trajectories of frailty in aging: Prospective cohort study. <i>PLoS ONE</i> , <b>2021</b> , 16, e0253976	3.7	2
11	The antagonistic pleiotropy of insulin-like growth factor 1. <i>Aging Cell</i> , <b>2021</b> , 20, e13443	9.9	2
10	Buffering Mechanisms in Aging: A systems approach towards uncovering the genetic component of aging. <i>PLoS Computational Biology</i> , <b>2005</b> , preprint, e170	5	1
9	BIOMARKER STRATEGIES FOR GEROSCIENCE-GUIDED CLINICAL TRIALS. <i>Innovation in Aging</i> , <b>2019</b> , 3, S745-S746	0.1	1
8	Greater effect of polygenic risk score for Alzheimer's disease among younger cases who are apolipoprotein E- $\epsilon$ 4 carriers. <i>Neurobiology of Aging</i> , <b>2021</b> , 99, 101.e1-101.e9	5.6	1
7	Einstein-Nathan Shock Center: translating the hallmarks of aging to extend human health span. <i>GeroScience</i> , <b>2021</b> , 43, 2167-2182	8.9	1
6	Geroscience-guided repurposing of FDA-approved drugs to target aging: A proposed process and prioritization.. <i>Aging Cell</i> , <b>2022</b> , e13596	9.9	1
5	Undulating changes in human plasma proteome profiles across the lifespan are linked to disease. <i>Alzheimer's and Dementia</i> , <b>2020</b> , 16, e043868	1.2	0
4	Prevalent skin cancer and conservative faith may be linked with cognitive impairment in Ashkenazi Jewish exceptionally long-lived individuals. <i>Alzheimer's and Dementia</i> , <b>2020</b> , 16, e046002	1.2	
3	[P3018]: INCREASED BURDEN OF RARE LOSS-OF-FUNCTION VARIANTS IN ALZHEIMER'S DISEASE PATIENTS COMPARED TO CENTENARIANS <b>2017</b> , 13, P980-P980		
2	Novel neuro-regulation of peripheral metabolism in aging. <i>FASEB Journal</i> , <b>2009</b> , 23, 425.2	0.9	
1	A Compendium of Age-Related PheWAS and GWAS Traits for Human Genetic Association Studies, Their Networks and Genetic Correlations. <i>Frontiers in Genetics</i> , <b>2021</b> , 12, 680560	4.5	