# Shin-Ichiro Imai

List of Publications by Year
in descending order



| 79 | 21,849 | 47006 47 | 64796 79 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 112 | 112 | 112 | 18953 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Transcriptional silencing and longevity protein Sir2 is an NAD-dependent histone deacetylase. Nature, 2000, 403, 795-800. | 27.8 | 3,142 |
| 2 | hSIR2SIRT1 Functions as an NAD-Dependent p53 Deacetylase. Cell, 2001, 107, 149-159. | 28.9 | 2,429 |
| 3 | Negative Control of p53 by Sir2Î± Promotes Cell Survival under Stress. Cell, 2001, 107, 137-148. | 28.9 | 2,014 |
| 4 | Nicotinamide Mononucleotide, a Key NAD+ Intermediate, Treats the Pathophysiology of Diet- and Age-Induced Diabetes in Mice. Cell Metabolism, 2011, 14, 528-536. | 16.2 | 1,037 |
| 5 | Circadian Clock Feedback Cycle Through NAMPT-Mediated NAD <sup>+</sup> Biosynthesis. Science, 2009, 324, 651-654. | 12.6 | 992 |
| 6 | NAD+ and sirtuins in aging and disease. Trends in Cell Biology, 2014, 24, 464-471. | 7.9 | 988 |
| 7 | The NAD Biosynthesis Pathway Mediated by Nicotinamide Phosphoribosyltransferase Regulates Sir2 Activity in Mammalian Cells. Journal of Biological Chemistry, 2004, 279, 50754-50763. | 3.4 | 831 |
| 8 | Nampt/PBEF/Visfatin Regulates Insulin Secretion in Î² Cells as a Systemic NAD Biosynthetic Enzyme. Cell Metabolism, 2007, 6, 363-375. | 16.2 | 785 |
| 9 | Sirt1 Extends Life Span and Delays Aging in Mice through the Regulation of Nk2 Homeobox 1 in the DMH and LH. Cell Metabolism, 2013, 18, 416-430. | 16.2 | 621 |
| 10 | NAD+ Intermediates: The Biology and Therapeutic Potential of NMN and NR. Cell Metabolism, 2018, 27, 513-528. | 16.2 | 605 |
| 11 | Increased dosage of mammalian Sir2 in pancreatic Î² cells enhances glucose-stimulated insulin secretion in mice. Cell Metabolism, 2005, 2, 105-117. | 16.2 | 575 |
| 12 | Long-Term Administration of Nicotinamide Mononucleotide Mitigates Age-Associated Physiological Decline in Mice. Cell Metabolism, 2016, 24, 795-806. | 16.2 | 552 |
| 13 | The dynamic regulation of NAD metabolism in mitochondria. Trends in Endocrinology and Metabolism, 2012, 23, 420-428. | 7.1 | 417 |
| 14 | Ten years of NAD-dependent SIR2 family deacetylases: implications for metabolic diseases. Trends in Pharmacological Sciences, 2010, 31, 212-220. | 8.7 | 393 |
| 15 | Poly(ADP-ribose) Polymerase-1-dependent Cardiac Myocyte Cell Death during Heart Failure Is Mediated by NAD+ Depletion and Reduced Sir2Î± Deacetylase Activity. Journal of Biological Chemistry, 2005, 280, 43121-43130. | 3.4 | 358 |
| 16 | Nampt: linking NAD biology, metabolism and cancer. Trends in Endocrinology and Metabolism, 2009, 20, 130-138. | 7.1 | 347 |
| 17 | Resveratrol Supplementation Does Not Improve Metabolic Function in Nonobese Women with Normal Glucose Tolerance. Cell Metabolism, 2012, 16, 658-664. | 16.2 | 336 |
| 18 | It takes two to tango: NAD+ and sirtuins in aging/longevity control. Npj Aging and Mechanisms of Disease, 2016, 2, 16017. | 4.5 | 299 |

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|---|---|---|---|
| 19 | Silent Information Regulator 2Î±, a Longevity Factor and Class III Histone Deacetylase, Is an Essential Endogenous Apoptosis Inhibitor in Cardiac Myocytes. Circulation Research, 2004, 95, 971-980. | 4.5 | 292 |
| 20 | Ageâ€associated loss of Sirt1â€mediated enhancement of glucoseâ€stimulated insulin secretion in beta cellâ€specific Sirt1â€overexpressing (BESTO) mice. Aging Cell, 2008, 7, 78-88. | 6.7 | 283 |
| 21 | Nicotinamide mononucleotide supplementation reverses vascular dysfunction and oxidative stress with aging in mice. Aging Cell, 2016, 15, 522-530. | 6.7 | 280 |
| 22 | Structure of Nampt/PBEF/visfatin, a mammalian NAD+ biosynthetic enzyme. Nature Structural and Molecular Biology, 2006, 13, 661-662. | 8.2 | 247 |
| 23 | The regulation of nicotinamide adenine dinucleotide biosynthesis by Nampt/PBEF/visfatin in mammals. Current Opinion in Gastroenterology, 2007, 23, 164-170. | 2.3 | 240 |
| 24 | Extracellular Vesicle-Contained eNAMPT Delays Aging and Extends Lifespan in Mice. Cell Metabolism, 2019, 30, 329-342.e5. | 16.2 | 239 |
| 25 | SIRT1 Promotes the Central Adaptive Response to Diet Restriction through Activation of the Dorsomedial and Lateral Nuclei of the Hypothalamus. Journal of Neuroscience, 2010, 30, 10220-10232. | 3.6 | 217 |
| 26 | Nicotinamide mononucleotide increases muscle insulin sensitivity in prediabetic women. Science, 2021, 372, 1224-1229. | 12.6 | 192 |
| 27 | Specific ablation of Nampt in adult neural stem cells recapitulates their functional defects during aging. EMBO Journal, 2014, 33, 1321-40. | 7.8 | 191 |
| 28 | Nicotinamide Phosphoribosyltransferase (Nampt): A Link Between NAD Biology, Metabolism, and Diseases. Current Pharmaceutical Design, 2009, 15, 20-28. | 1.9 | 188 |
| 29 | Slc12a8 is a nicotinamide mononucleotide transporter. Nature Metabolism, 2019, 1, 47-57. | 11.9 | 183 |
| 30 | The NAD World: A New Systemic Regulatory Network for Metabolism and Agingâ€”Sirt1, Systemic NAD Biosynthesis, and Their Importance. Cell Biochemistry and Biophysics, 2009, 53, 65-74. | 1.8 | 176 |
| 31 | Extracellular Nampt Promotes Macrophage Survival via a Nonenzymatic Interleukin-6/STAT3 Signaling Mechanism. Journal of Biological Chemistry, 2008, 283, 34833-34843. | 3.4 | 174 |
| 32 | SIRT1-Mediated eNAMPT Secretion from Adipose Tissue Regulates Hypothalamic NAD+ and Function in Mice. Cell Metabolism, 2015, 21, 706-717. | 16.2 | 172 |
| 33 | NAMPT-Mediated NAD+ Biosynthesis Is Essential for Vision In Mice. Cell Reports, 2016, 17, 69-85. | 6.4 | 150 |
| 34 | NAMPT-Mediated NAD + Biosynthesis in Adipocytes Regulates Adipose Tissue Function and Multi-organ Insulin Sensitivity in Mice. Cell Reports, 2016, 16, 1851-1860. | 6.4 | 146 |
| 35 | The brain, sirtuins, and ageing. Nature Reviews Neuroscience, 2017, 18, 362-374. | 10.2 | 138 |
| 36 | NAD+ biosynthesis, aging, and disease. F1000Research, 2018, 7, 132. | 1.6 | 135 |

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|---|---|---|---|
| 37 | Effect of oral administration of nicotinamide mononucleotide on clinical parameters and nicotinamide metabolite levels in healthy Japanese men. Endocrine Journal, 2020, 67, 153-160. | 1.6 | 114 |
| 38 | â€œClocksâ€•in the NAD World: NAD as a metabolic oscillator for the regulation of metabolism and aging. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1584-1590. | 2.3 | 109 |
| 39 | Dissociation of Oct-1 from the Nuclear Peripheral Structure Induces the Cellular Aging-associated Collagenase Gene Expression. Molecular Biology of the Cell, 1997, 8, 2407-2419. | 2.1 | 94 |
| 40 | Dissecting systemic control of metabolism and aging in the NAD World: The importance of SIRT1 and NAMPTâ€•mediated NAD biosynthesis. FEBS Letters, 2011, 585, 1657-1662. | 2.8 | 94 |
| 41 | A possibility of nutriceuticals as an anti-aging intervention: Activation of sirtuins by promoting mammalian NAD biosynthesis. Pharmacological Research, 2010, 62, 42-47. | 7.1 | 78 |
| 42 | Accurate Measurement of Nicotinamide Adenine Dinucleotide (NAD+) with High-Performance Liquid Chromatography. Methods in Molecular Biology, 2013, 1077, 203-215. | 0.9 | 74 |
| 43 | The NAD World 2.0: the importance of the inter-tissue communication mediated by NAMPT/NAD+/SIRT1 in mammalian aging and longevity control. Npj Systems Biology and Applications, 2016, 2, 16018. | 3.0 | 66 |
| 44 | Therapeutic potential of SIRT1 and NAMPT-mediated NAD biosynthesis in type 2 diabetes. Frontiers in Bioscience - Landmark, 2009, Volume, 2983. | 3.0 | 64 |
| 45 | Dietary Restriction: Standing Up for Sirtuins. Science, 2010, 329, 1012-1013. | 12.6 | 63 |
| 46 | The N-Terminal Domain of SIRT1 Is a Positive Regulator of Endogenous SIRT1-Dependent Deacetylation and Transcriptional Outputs. Cell Reports, 2015, 10, 1665-1673. | 6.4 | 56 |
| 47 | Systemic regulation of mammalian ageing and longevity by brain sirtuins. Nature Communications, 2014, 5, 4211. | 12.8 | 53 |
| 48 | Expression of Nampt in Hippocampal and Cortical Excitatory Neurons Is Critical for Cognitive Function. Journal of Neuroscience, 2014, 34, 5800-5815. | 3.6 | 50 |
| 49 | Diurnal Variation in Insulin Sensitivity of Glucose Metabolism Is Associated With Diurnal Variations in Whole-Body and Cellular Fatty Acid Metabolism in Metabolically Normal Women. Journal of Clinical Endocrinology and Metabolism, 2014, 99, E1666-E1670. | 3.6 | 49 |
| 50 | SIRT1 and caloric restriction: an insight into possible trade-offs between robustness and frailty. Current Opinion in Clinical Nutrition and Metabolic Care, 2009, 12, 350-356. | 2.5 | 46 |
| 51 | Expression of a MADS box gene, MEF2D, in neurons of the mouse central nervous system: implication of its binary function in myogenic and neurogenic cell lineages. Neuroscience Letters, 1995, 200, 117-120. | 2.1 | 41 |
| 52 | SSâ€•1 and NMN: Two paths to improve metabolism and function in aged hearts. Aging Cell, 2020, 19, e13213. | 6.7 | 38 |
| 53 | From heterochromatin islands to the NAD World: A hierarchical view of aging through the functions of mammalian Sirt1 and systemic NAD biosynthesis. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 997-1004. | 2.4 | 35 |
| 54 | Hypothalamic Sirt1 protects terminal Schwann cells and neuromuscular junctions from ageâ€•related morphological changes. Aging Cell, 2018, 17, e12776. | 6.7 | 35 |

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|---|---|---|---|
| 55 | Unconventional Secretion of Adipocyte Fatty Acid Binding Protein 4 Is Mediated By Autophagic Proteins in a Sirtuin-1â€“Dependent Manner. Diabetes, 2019, 68, 1767-1777. | 0.6 | 32 |
| 56 | Hypothalamic Sirt1 in aging. Aging, 2014, 6, 1-2. | 3.1 | 27 |
| 57 | Transposon-mediated insertional mutagenesis of the D-alanyl-lipoteichoic acid (dlt) operon raises methicillin resistance in Staphylococcus aureus. Research in Microbiology, 2000, 151, 823-829. | 2.1 | 26 |
| 58 | Deficiency of <scp>P</scp> rdm13, a dorsomedial hypothalamusâ€enriched gene, mimics ageâ€associated changes in sleep quality and adiposity. Aging Cell, 2015, 14, 209-218. | 6.7 | 25 |
| 59 | Mitochondrial SIRT3: A New Potential Therapeutic Target for Metabolic Syndrome. Molecular Cell, 2011, 44, 170-171. | 9.7 | 23 |
| 60 | Loss of collagenase gene expression in immortalized clones of SV40 T antigen-transformed human diploid fibroblasts. Biochemical and Biophysical Research Communications, 1992, 189, 148-153. | 2.1 | 21 |
| 61 | A nutrientâ€sensitive interaction between Sirt1 and HNFâ€1Î± regulates Crp expression. Aging Cell, 2011, 10, 305-317. | 6.7 | 21 |
| 62 | Induction of mcl1/EAT, Bcl-2 Related Gene, by Retinoic Acid or Heat Shock in the Human Embryonal Carcinoma Cells, NCR-G3.. Cell Structure and Function, 1996, 21, 143-150. | 1.1 | 21 |
| 63 | Is Sirt1 a miracle bullet for longevity?. Aging Cell, 2007, 6, 735-737. | 6.7 | 17 |
| 64 | The two-process model of cellular aging. Experimental Gerontology, 1998, 33, 393-419. | 2.8 | 15 |
| 65 | Friends and foes: Extracellular vesicles in aging and rejuvenation. FASEB BioAdvances, 2021, 3, 787-801. | 2.4 | 15 |
| 66 | Escape from in vitro aging in SV40 large T antigen-transformed human diploid cells: A key event responsible for immortalization occurs during crisis. Mechanisms of Ageing and Development, 1993, 69, 149-158. | 4.6 | 11 |
| 67 | Nampt is required for long-term depression and the function of GluN2B subunit-containing NMDA receptors. Brain Research Bulletin, 2015, 119, 41-51. | 3.0 | 10 |
| 68 | Reply to: Absence of evidence that Slc12a8 encodes a nicotinamide mononucleotide transporter. Nature Metabolism, 2019, 1, 662-665. | 11.9 | 10 |
| 69 | Sirt1 as a key regulator orchestrating the response to caloric restriction. Drug Discovery Today Disease Mechanisms, 2006, 3, 11-17. | 0.8 | 9 |
| 70 | Age-related disruption of the proteome and acetylome in mouse hearts is associated with loss of function and attenuated by elamipretide (SS-31) and nicotinamide mononucleotide (NMN) treatment. GeroScience, 2022, 44, 1621-1639. | 4.6 | 8 |
| 71 | A Clock Ticks in Pancreatic Î² Cells. Cell Metabolism, 2010, 12, 107-108. | 16.2 | 7 |
| 72 | SIRT1 mediates hypoxic postconditioning- and resveratrol-induced protection against functional connectivity deficits after subarachnoid hemorrhage. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 1210-1223. | 4.3 | 7 |

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|---|---|---|---|
| 73 | PCCX1, a Novel DNA-Binding Protein with PHD Finger and CXXC Domain, Is Regulated by Proteolysis. Biochemical and Biophysical Research Communications, 2000, 271, 305-310. | 2.1 | 5 |
| 74 | NAD+ oscillation and hypothalamic neuronal functions. Faculty Reviews, 2021, 10, 42. | 3.9 | 5 |
| 75 | Toward Productive Aging: SIRT1, Systemic NAD Biosynthesis, and the NAD World. Cornea, 2010, 29, S7-S12. | 1.7 | 1 |
| 76 | Unconventional Secretion of Adipocyte Fatty Acid Binding Protein (FABP4) by Adipocytes. FASEB Journal, 2018, 32, 814.11. | 0.5 | 1 |
| 77 | The 2021 FASEB science research conference on NAD metabolism and signaling. Aging, 2021, 13, 24924-24930. | 3.1 | 1 |
| 78 | Message from the new Co-Editor-in-Chief. Npj Aging and Mechanisms of Disease, 2017, 3, 3. | 4.5 | 0 |
| 79 | Regulation of Sirtuins by Systemic NAD + Biosynthesis. , 2018, , 7-25. | | 0 |