Susumu Tonegawa

List of Publications by Year in Descending Order

91 papers	22,133 citations	64 h-index	94 g-index
94 ext. papers	25,572 ext. citations	25.5 avg, IF	7.03 L-index

#	Paper	IF	Citations
91	Brain-wide mapping reveals that engrams for a single memory are distributed across multiple brain regions.. *Nature Communications*, **2022**, 13, 1799	17.4	5
90	Crucial role for CA2 inputs in the sequential organization of CA1 time cells supporting memory. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	10
89	Reply to Lehr and Stber: Whats in a name? On the distinction between temporal coding and internally driven activity. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	0
88	Amygdala Reward Neurons Form and Store Fear Extinction Memory. *Neuron*, **2020**, 105, 1077-1093.e7	13.9	50
87	Hippocampal neurons represent events as transferable units of experience. *Nature Neuroscience*, **2020**, 23, 651-663	25.5	41
86	Differential attentional control mechanisms by two distinct noradrenergic coeruleo-frontal cortical pathways. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 29080-29089	11.5	15
85	Memory engrams: Recalling the past and imagining the future. *Science*, **2020**, 367,	33.3	193
84	Engram Cell Excitability State Determines the Efficacy of Memory Retrieval. *Neuron*, **2019**, 101, 274-284.e5	13.9	88
83	Locus coeruleus input to hippocampal CA3 drives single-trial learning of a novel context. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E310-E316	11.5	99
82	The role of engram cells in the systems consolidation of memory. *Nature Reviews Neuroscience*, **2018**, 19, 485-498	13.5	153
81	Engrams and circuits crucial for systems consolidation of a memory. *Science*, **2017**, 356, 73-78	33.3	427
80	Basolateral to Central Amygdala Neural Circuits for Appetitive Behaviors. *Neuron*, **2017**, 93, 1464-1479.e5	13.9	189
79	Direct Medial Entorhinal Cortex Input to Hippocampal CA1 Is Crucial for Extended Quiet Awake Replay. *Neuron*, **2017**, 96, 217-227.e4	13.9	69
78	Dorsal Raphe Serotonergic Neurons Control Intertemporal Choice under Trade-off. *Current Biology*, **2017**, 27, 3111-3119.e3	6.3	21
77	Silent memory engrams as the basis for retrograde amnesia. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E9972-E9979	11.5	58
76	Tagging activated neurons with light. *Nature Biotechnology*, **2017**, 35, 827-828	44.5	4
75	Distinct Neural Circuits for the Formation and Retrieval of Episodic Memories. *Cell*, **2017**, 170, 1000-1012.e19	36.1	131

74	A novel diagnostic biomarker for human uterine leiomyosarcoma: PSMB9/11i. *Chinese Clinical Oncology*, **2017**, 6, 22	2.3	5
73	Antagonistic negative and positive neurons of the basolateral amygdala. *Nature Neuroscience*, **2016**, 19, 1636-1646	25.5	173
72	Rehebbilitating Memory. *Neuropsychopharmacology*, **2016**, 41, 370-1	8.7	8
71	Memory retrieval by activating engram cells in mouse models of early Alzheimer's disease. *Nature*, **2016**, 531, 508-12	50.4	275
70	Molecular Pathology and Novel Clinical Therapy for Uterine Leiomyosarcoma. *Anticancer Research*, **2016**, 36, 4997-5007	2.3	5
69	What is memory? The present state of the engram. *BMC Biology*, **2016**, 14, 40	7.3	197
68	Ventral CA1 neurons store social memory. *Science*, **2016**, 353, 1536-1541	33.3	287
67	Differentiation of forebrain and hippocampal dopamine 1-class receptors, D1R and D5R, in spatial learning and memory. *Hippocampus*, **2016**, 26, 76-86	3.5	18
66	Conjunctive input processing drives feature selectivity in hippocampal CA1 neurons. *Nature Neuroscience*, **2015**, 18, 1133-42	25.5	262
65	Distinct speed dependence of entorhinal island and ocean cells, including respective grid cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 9466-71	11.5	88
64	Activating positive memory engrams suppresses depression-like behaviour. *Nature*, **2015**, 522, 335-9	50.4	195
63	Entorhinal Cortical Ocean Cells Encode Specific Contexts and Drive Context-Specific Fear Memory. *Neuron*, **2015**, 87, 1317-1331	13.9	88
62	Entorhinal-hippocampal neuronal circuits bridge temporally discontiguous events. *Learning and Memory*, **2015**, 22, 438-43	2.8	58
61	Memory engram storage and retrieval. *Current Opinion in Neurobiology*, **2015**, 35, 101-9	7.6	218
60	Memory Engram Cells Have Come of Age. *Neuron*, **2015**, 87, 918-31	13.9	284
59	Memory. Engram cells retain memory under retrograde amnesia. *Science*, **2015**, 348, 1007-13	33.3	346
58	Successful execution of working memory linked to synchronized high-frequency gamma oscillations. *Cell*, **2014**, 157, 845-57	56.2	228
57	Direct excitation of parvalbumin-positive interneurons by M1 muscarinic acetylcholine receptors: roles in cellular excitability, inhibitory transmission and cognition. *Journal of Physiology*, **2014**, 592, 3463-94	3.9	88

56	Cell type-specific genetic and optogenetic tools reveal hippocampal CA2 circuits. *Nature Neuroscience*, **2014**, 17, 269-79	25.5	296
55	Island cells control temporal association memory. *Science*, **2014**, 343, 896-901	33.3	203
54	Bidirectional switch of the valence associated with a hippocampal contextual memory engram. *Nature*, **2014**, 513, 426-30	50.4	282
53	Differential roles of the dopamine 1-class receptors, D1R and D5R, in hippocampal dependent memory. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 8245-50	11.1	53
52	Identification and Manipulation of Memory Engram Cells. *Cold Spring Harbor Symposia on Quantitative Biology*, **2014**, 79, 59-65	3.9	22
51	Potential biomarker for human uterine leiomyosarcoma. *Journal of Clinical Medicine Research*, **2014**, 6, 392-4	2.9	3
50	Identification and optogenetic manipulation of memory engrams in the hippocampus. *Frontiers in Behavioral Neuroscience*, **2013**, 7, 226	3.5	51
49	Creating a false memory in the hippocampus. *Science*, **2013**, 341, 387-91	33.3	576
48	Young dentate granule cells mediate pattern separation, whereas old granule cells facilitate pattern completion. *Cell*, **2012**, 149, 188-201	56.2	579
47	Optogenetic stimulation of a hippocampal engram activates fear memory recall. *Nature*, **2012**, 484, 381-5	50.4	909
46	Preplay of future place cell sequences by hippocampal cellular assemblies. *Nature*, **2011**, 469, 397-401	50.4	391
45	Entorhinal cortex layer III input to the hippocampus is crucial for temporal association memory. *Science*, **2011**, 334, 1415-20	33.3	227
44	Hippocampal CA3 output is crucial for ripple-associated reactivation and consolidation of memory. *Neuron*, **2009**, 62, 781-7	13.9	182
43	The ins and outs of hippocampal circuits. *Neuron*, **2008**, 57, 175-7	13.9	4
42	Transgenic inhibition of synaptic transmission reveals role of CA3 output in hippocampal learning. *Science*, **2008**, 319, 1260-4	33.3	351
41	Dentate gyrus NMDA receptors mediate rapid pattern separation in the hippocampal network. *Science*, **2007**, 317, 94-9	33.3	704
40	Altered cortical synaptic morphology and impaired memory consolidation in forebrain- specific dominant-negative PAK transgenic mice. *Neuron*, **2004**, 42, 773-87	13.9	227
39	Hippocampal CA3 NMDA receptors are crucial for memory acquisition of one-time experience. *Neuron*, **2003**, 38, 305-15	13.9	369

38	Genetic neuroscience of mammalian learning and memory. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2003**, 358, 787-95	5.8	75
37	Requirement for hippocampal CA3 NMDA receptors in associative memory recall. *Science*, **2002**, 297, 211-8	33.3	822
36	Cortex-restricted disruption of NMDAR1 impairs neuronal patterns in the barrel cortex. *Nature*, **2000**, 406, 726-31	50.4	415
35	Decreased Ethanol Sensitivity and Tolerance Development in Protein Kinase C Null Mutant Mice Is Dependent on Genetic Background. *Alcoholism: Clinical and Experimental Research*, **1999**, 23, 387-397	3.7	76
34	Dopamine D3 receptor mutant and wild-type mice exhibit identical responses to putative D3 receptor-selective agonists and antagonists. *Synapse*, **1999**, 31, 210-5	2.4	90
33	Why do mature CNS neurons of mammals fail to re-establish connections following injury--functions of bcl-2. *Cell Death and Differentiation*, **1998**, 5, 816-22	12.7	31
32	Myelin basic protein-specific T helper 2 (Th2) cells cause experimental autoimmune encephalomyelitis in immunodeficient hosts rather than protect them from the disease. *Journal of Experimental Medicine*, **1997**, 186, 307-12	16.6	384
31	Bcl-2 promotes regeneration of severed axons in mammalian CNS. *Nature*, **1997**, 385, 434-9	50.4	406
30	Impaired hippocampal representation of space in CA1-specific NMDAR1 knockout mice. *Cell*, **1996**, 87, 1339-49	56.2	507
29	Differential reactivity of residual CD8+ T lymphocytes in TAP1 and beta 2-microglobulin mutant mice. *European Journal of Immunology*, **1995**, 25, 174-8	6.1	34
28	Contribution of alpha/beta and gamma/delta T lymphocytes to immunity against Mycobacterium bovis bacillus Calmette Guin: studies with T cell receptor-deficient mutant mice. *European Journal of Immunology*, **1995**, 25, 838-46	6.1	123
27	TAP1-independent loading of class I molecules by exogenous viral proteins. *European Journal of Immunology*, **1995**, 25, 1739-43	6.1	91
26	Presentation of endogenous viral proteins in association with major histocompatibility complex class II: on the role of intracellular compartmentalization, invariant chain and the TAP transporter system. *European Journal of Immunology*, **1995**, 25, 3402-11	6.1	90
25	Different roles of alpha beta and gamma delta T cells in immunity against an intracellular bacterial pathogen. *Nature*, **1993**, 365, 53-6	50.4	374
24	Repertoire-determining role of peptide in the positive selection of CD8+ T cells. *Immunological Reviews*, **1993**, 135, 157-82	11.3	7
23	Mutations in T-cell antigen receptor genes alpha and beta block thymocyte development at different stages. *Nature*, **1992**, 360, 225-31	50.4	942
22	Recognition of MHC TL gene products by gamma delta T cells. *Immunological Reviews*, **1991**, 120, 89-115	11.3	47
21	Self-tolerance to transgenic gamma delta T cells by intrathymic inactivation. *Nature*, **1990**, 344, 163-5	50.4	90

20	Revised nomenclature of mouse H-2 genes. *Immunogenetics*, **1990**, 32, 147-9	3.2	45
19	Immunobiology of murine T. cruzi infection: the predominance of parasite-nonspecific responses and the activation of TCRI T cells. *Immunological Reviews*, **1989**, 112, 183-207	11.3	147
18	Blockage of alpha beta T-cell development by TCR gamma delta transgenes. *Nature*, **1989**, 342, 931-4	50.4	72
17	Diversity of gamma delta T-cell receptors on murine intestinal intra-epithelial lymphocytes. *Nature*, **1989**, 339, 712-4	50.4	204
16	Somatic Generation of Immune Diversity (Nobel Lecture). *Angewandte Chemie International Edition in English*, **1988**, 27, 1028-1039		4
15	Intestinal intraepithelial lymphocytes are a distinct set of gamma delta T cells. *Nature*, **1988**, 336, 479-81	50.4	364
14	T gamma protein is expressed on murine fetal thymocytes as a disulphide-linked heterodimer. *Nature*, **1987**, 325, 720-3	50.4	81
13	Diversity of murine gamma genes and expression in fetal and adult T lymphocytes. *Nature*, **1986**, 322, 836-40	50.4	344
12	Limited diversity of the rearranged T-cell gamma gene. *Nature*, **1985**, 313, 752-5	50.4	175
11	Cell-type-specific contacts to immunoglobulin enhancers in nuclei. *Nature*, **1985**, 313, 798-801	50.4	336
10	Developmental regulation of T-cell receptor gene expression. *Nature*, **1985**, 314, 103-7	50.4	484
9	Functional expression of a microinjected Ed alpha gene in C57BL/6 transgenic mice. *Nature*, **1985**, 316, 67-9	50.4	120
8	Unusual organization and diversity of T-cell receptor alpha-chain genes. *Nature*, **1985**, 316, 828-32	50.4	204
7	Activation of a translocated human c-myc gene by an enhancer in the immunoglobulin heavy-chain locus. *Nature*, **1984**, 307, 334-40	50.4	254
6	Complete primary structure of a heterodimeric T-cell receptor deduced from cDNA sequences. *Nature*, **1984**, 309, 757-62	50.4	608
5	Cell type-specific enhancer element associated with a mouse MHC gene, E beta. *Nature*, **1984**, 310, 594-7	50.4	176
4	A third rearranged and expressed gene in a clone of cytotoxic T lymphocytes. *Nature*, **1984**, 312, 36-40	50.4	465
3	Somatic generation of antibody diversity. *Nature*, **1983**, 302, 575-81	50.4	3628

List of Publications

2	Amygdala Reward Neurons Form and Store Fear Extinction Memory	1
1	Brain-wide mapping of contextual fear memory engram ensembles supports the dispersed engram complex hypothesis	12