Thomas C Südhof

List of Publications by Year in descending order

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6613 7745 32,238 152 79 citations h-index papers

g-index 167 167 167 25804 docs citations times ranked citing authors all docs

150

| # | Article | IF | CITATIONS |
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| 1 | Direct conversion of fibroblasts to functional neurons by defined factors. Nature, 2010, 463, 1035-1041. | 27.8 | 2,739 |
| 2 | The synaptic vesicle cycle: a cascade of protein–protein interactions. Nature, 1995, 375, 645-653. | 27.8 | 1,951 |
| 3 | Neuroligins and neurexins link synaptic function to cognitive disease. Nature, 2008, 455, 903-911. | 27.8 | 1,577 |
| 4 | Rapid Single-Step Induction of Functional Neurons from Human Pluripotent Stem Cells. Neuron, 2013, 78, 785-798. | 8.1 | 1,209 |
| 5 | Induction of human neuronal cells by defined transcription factors. Nature, 2011, 476, 220-223. | 27.8 | 1,152 |
| 6 | Neurotransmitter Release: The Last Millisecond in the Life of a Synaptic Vesicle. Neuron, 2013, 80, 675-690. | 8.1 | 952 |
| 7 | A Neuroligin-3 Mutation Implicated in Autism Increases Inhibitory Synaptic Transmission in Mice. Science, 2007, 318, 71-76. | 12.6 | 932 |
| 8 | The Presynaptic Active Zone. Neuron, 2012, 75, 11-25. | 8.1 | 863 |
| 9 | Neuroligins Determine Synapse Maturation and Function. Neuron, 2006, 51, 741-754. | 8.1 | 717 |
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| 10 | Neuroligin 1: A splice site-specific ligand for \hat{l}^2 -neurexins. Cell, 1995, 81, 435-443. | 28.9 | 639 |
| 10 | Neuroligin 1: A splice site-specific ligand for β-neurexins. Cell, 1995, 81, 435-443. α-Neurexins couple Ca2+ channels to synaptic vesicle exocytosis. Nature, 2003, 423, 939-948. | 28.9 | 639 627 |
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| 11 | α-Neurexins couple Ca2+ channels to synaptic vesicle exocytosis. Nature, 2003, 423, 939-948. Synaptic Neurexin Complexes: A Molecular Code for the Logic of Neural Circuits. Cell, 2017, 171, | 27.8 | 627 |
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| 11 12 13 | α-Neurexins couple Ca2+ channels to synaptic vesicle exocytosis. Nature, 2003, 423, 939-948. Synaptic Neurexin Complexes: A Molecular Code for the Logic of Neural Circuits. Cell, 2017, 171, 745-769. A Neural Circuit for Memory Specificity and Generalization. Science, 2013, 339, 1290-1295. Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus | 27.8 28.9 12.6 | 627 608 585 |
| 11 12 13 | α-Neurexins couple Ca2+ channels to synaptic vesicle exocytosis. Nature, 2003, 423, 939-948. Synaptic Neurexin Complexes: A Molecular Code for the Logic of Neural Circuits. Cell, 2017, 171, 745-769. A Neural Circuit for Memory Specificity and Generalization. Science, 2013, 339, 1290-1295. Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus Neuroligin-2. Neuron, 2007, 54, 919-931. RIM Proteins Tether Ca2+ Channels to Presynaptic Active Zones via a Direct PDZ-Domain Interaction. | 27.8 28.9 12.6 8.1 | 627 608 585 511 |
| 11 12 13 14 | α-Neurexins couple Ca2+ channels to synaptic vesicle exocytosis. Nature, 2003, 423, 939-948. Synaptic Neurexin Complexes: A Molecular Code for the Logic of Neural Circuits. Cell, 2017, 171, 745-769. A Neural Circuit for Memory Specificity and Generalization. Science, 2013, 339, 1290-1295. Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus Neuroligin-2. Neuron, 2007, 54, 919-931. RIM Proteins Tether Ca2+ Channels to Presynaptic Active Zones via a Direct PDZ-Domain Interaction. Cell, 2011, 144, 282-295. Cellubrevin is a ubiquitous tetanus-toxin substrate homologous to a putative synaptic vesicle fusion | 27.8 28.9 12.6 8.1 28.9 | 627 608 585 511 |

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| 19 | A Splice Code for trans-Synaptic Cell Adhesion Mediated by Binding of Neuroligin 1 to \hat{l}_{\pm} - and \hat{l}^{2} -Neurexins. Neuron, 2005, 48, 229-236. | 8.1 | 416 |
| 20 | Acid-dependent ligand dissociation and recycling of LDL receptor mediated by growth factor homology region. Nature, 1987, 326, 760-765. | 27.8 | 407 |
| 21 | Cartography of neurexins: More than 1000 isoforms generated by alternative splicing and expressed in distinct subsets of neurons. Neuron, 1995, 14, 497-507. | 8.1 | 405 |
| 22 | Mouse neurexin- $\hat{\Pi}$ deletion causes correlated electrophysiological and behavioral changes consistent with cognitive impairments. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17998-18003. | 7.1 | 404 |
| 23 | Structures, Alternative Splicing, and Neurexin Binding of Multiple Neuroligins. Journal of Biological Chemistry, 1996, 271, 2676-2682. | 3.4 | 398 |
| 24 | Autism-Associated Neuroligin-3 Mutations Commonly Impair Striatal Circuits to Boost Repetitive Behaviors. Cell, 2014, 158, 198-212. | 28.9 | 397 |
| 25 | ApoE2, ApoE3, and ApoE4 Differentially Stimulate APP Transcription and $\hat{Al^2}$ Secretion. Cell, 2017, 168, 427-441.e21. | 28.9 | 372 |
| 26 | A novel evolutionarily conserved domain of cell-adhesion GPCRs mediates autoproteolysis. EMBO Journal, 2012, 31, 1364-1378. | 7.8 | 355 |
| 27 | A dual-Ca2+-sensor model for neurotransmitter release in a central synapse. Nature, 2007, 450, 676-682. | 27.8 | 321 |
| 28 | RIM Determines Ca2+ Channel Density and Vesicle Docking at the Presynaptic Active Zone. Neuron, 2011, 69, 304-316. | 8.1 | 316 |
| 29 | Generation of Induced Neuronal Cells by the Single Reprogramming Factor ASCL1. Stem Cell Reports, 2014, 3, 282-296. | 4.8 | 312 |
| 30 | Dynamin GTPase regulated by protein kinase C phosphorylation in nerve terminals. Nature, 1993, 365, 163-166. | 27.8 | 284 |
| 31 | Cartography of neurexin alternative splicing mapped by single-molecule long-read mRNA sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1291-9. | 7.1 | 280 |
| 32 | Generation of pure GABAergic neurons by transcription factor programming. Nature Methods, 2017, 14, 621-628. | 19.0 | 265 |
| 33 | Binding of synaptotagmin to the \hat{l}_{\pm} -latrotoxin receptor implicates both in synaptic vesicle exocytosis. Nature, 1991, 353, 65-68. | 27.8 | 261 |
| 34 | Structure and Evolution of Neurexin Genes: Insight into the Mechanism of Alternative Splicing. Genomics, 2002, 79, 849-859. | 2.9 | 255 |
| 35 | Presenilins are essential for regulating neurotransmitter release. Nature, 2009, 460, 632-636. | 27.8 | 251 |
| 36 | Presynaptic Neurexin-3 Alternative Splicing trans-Synaptically Controls Postsynaptic AMPA Receptor Trafficking. Cell, 2013, 154, 75-88. | 28.9 | 246 |

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| 37 | Endocannabinoid-Mediated Long-Term Plasticity Requires cAMP/PKA Signaling and RIM1α. Neuron, 2007, 54, 801-812. | 8.1 | 238 |
| 38 | Binding Properties of Neuroligin 1 and Neurexin $1\hat{l}^2$ Reveal Function as Heterophilic Cell Adhesion Molecules. Journal of Biological Chemistry, 1997, 272, 26032-26039. | 3.4 | 206 |
| 39 | \hat{l}_{\pm} -Latrotoxin and Its Receptors: Neurexins and CIRL/Latrophilins. Annual Review of Neuroscience, 2001, 24, 933-962. | 10.7 | 204 |
| 40 | Synaptic Cell Adhesion. Cold Spring Harbor Perspectives in Biology, 2012, 4, a005694-a005694. | 5.5 | 198 |
| 41 | Mechanism of Phospholipid Binding by the C2A-Domain of Synaptotagmin Iâ€. Biochemistry, 1998, 37, 12395-12403. | 2.5 | 190 |
| 42 | Human Neuropsychiatric Disease Modeling using Conditional Deletion Reveals Synaptic Transmission Defects Caused by Heterozygous Mutations in NRXN1. Cell Stem Cell, 2015, 17, 316-328. | 11.1 | 187 |
| 43 | Myt1l safeguards neuronal identity by actively repressing many non-neuronal fates. Nature, 2017, 544, 245-249. | 27.8 | 180 |
| 44 | Structures of Neuroligin-1 and the Neuroligin-1/Neurexin- $1\hat{l}^2$ Complex Reveal Specific Protein-Protein and Protein-Ca2+ Interactions. Neuron, 2007, 56, 992-1003. | 8.1 | 178 |
| 45 | Conditional Deletion of All Neurexins Defines Diversity of Essential Synaptic Organizer Functions for Neurexins. Neuron, 2017, 94, 611-625.e4. | 8.1 | 170 |
| 46 | Dissection of Synapse Induction by Neuroligins. Journal of Biological Chemistry, 2005, 280, 22365-22374. | 3.4 | 169 |
| 47 | Latrophilins Function as Heterophilic Cell-adhesion Molecules by Binding to Teneurins. Journal of Biological Chemistry, 2014, 289, 387-402. | 3.4 | 169 |
| 48 | Latrophilin GPCRs direct synapse specificity by coincident binding of FLRTs and teneurins. Science, 2019, 363, . | 12.6 | 169 |
| 49 | Definition of a Molecular Pathway Mediating $\hat{l}\pm$ -Synuclein Neurotoxicity. Journal of Neuroscience, 2015, 35, 5221-5232. | 3.6 | 168 |
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| 52 | \hat{l}_{\pm} -Latrotoxin Receptor CIRL/Latrophilin 1 (CL1) Defines an Unusual Family of Ubiquitous G-protein-linked Receptors. Journal of Biological Chemistry, 1998, 273, 32715-32724. | 3.4 | 159 |
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| 57 | High Affinity Neurexin Binding to Cell Adhesion G-protein-coupled Receptor CIRL1/Latrophilin-1 Produces an Intercellular Adhesion Complex. Journal of Biological Chemistry, 2012, 287, 9399-9413. | 3.4 | 147 |
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| 61 | The cell biology of synapse formation. Journal of Cell Biology, 2021, 220, . | 5.2 | 136 |
| 62 | How to Make an Active Zone: Unexpected Universal Functional Redundancy between RIMs and RIM-BPs. Neuron, 2016, 91, 792-807. | 8.1 | 133 |
| 63 | Neuroligins Sculpt Cerebellar Purkinje-Cell Circuits by Differential Control of Distinct Classes of Synapses. Neuron, 2015, 87, 781-796. | 8.1 | 128 |
| 64 | The C2B Domain of Synaptotagmin I Is a Ca2+-Binding Module. Biochemistry, 2001, 40, 5854-5860. | 2.5 | 125 |
| 65 | \hat{l}^2 -Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling. Cell, 2015, 162, 593-606. | 28.9 | 123 |
| 66 | Monitoring synaptic transmission in primary neuronal cultures using local extracellular stimulation. Journal of Neuroscience Methods, 2007, 161, 75-87. | 2.5 | 121 |
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| 70 | Distinct circuit-dependent functions of presynaptic neurexin-3 at GABAergic and glutamatergic synapses. Nature Neuroscience, 2015, 18, 997-1007. | 14.8 | 109 |
| 71 | Different Effects on Fast Exocytosis Induced by Synaptotagmin 1 and 2 Isoforms and Abundance But Not by Phosphorylation. Journal of Neuroscience, 2006, 26, 632-643. | 3.6 | 108 |
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| 78 | Structure and Evolution of Neurexophilin. Journal of Neuroscience, 1996, 16, 4360-4369. | 3.6 | 90 |
| 79 | Neurexins Are Functional α-Latrotoxin Receptors. Neuron, 1999, 22, 489-496. | 8.1 | 89 |
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| 82 | Postsynaptic adhesion GPCR latrophilin-2 mediates target recognition in entorhinal-hippocampal synapse assembly. Journal of Cell Biology, 2017, 216, 3831-3846. | 5.2 | 86 |
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| 84 | Differential Signaling Mediated by ApoE2, ApoE3, and ApoE4 in Human Neurons Parallels Alzheimer's Disease Risk. Journal of Neuroscience, 2019, 39, 7408-7427. | 3.6 | 85 |
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| 89 | Carbonic anhydrase-related protein CA10 is an evolutionarily conserved pan-neurexin ligand. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1253-E1262. | 7.1 | 81 |
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| 103 | Neuromodulator Signaling Bidirectionally Controls Vesicle Numbers in Human Synapses. Cell, 2019, 179, 498-513.e22. | 28.9 | 59 |
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| 106 | GluD1 is a signal transduction device disguised as an ionotropic receptor. Nature, 2021, 595, 261-265. | 27.8 | 51 |
| 107 | Cross-platform validation of neurotransmitter release impairments in schizophrenia patient-derived $\langle i \rangle$ NRXN1 $\langle i \rangle$ -mutant neurons. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 49 |
| 108 | Cerebellins are differentially expressed in selective subsets of neurons throughout the brain. Journal of Comparative Neurology, 2017, 525, 3286-3311. | 1.6 | 48 |

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| 110 | Crystal Structure of the Second LNS/LG Domain from Neurexin $1\hat{l}_{\pm}$. Journal of Biological Chemistry, 2006, 281, 22896-22905. | 3.4 | 46 |
| 111 | Synaptotagmin-11 mediates a vesicle trafficking pathway that is essential for development and synaptic plasticity. Genes and Development, 2019, 33, 365-376. | 5.9 | 46 |
| 112 | RTN4/NoGo-receptor binding to BAI adhesion-GPCRs regulates neuronal development. Cell, 2021, 184, 5869-5885.e25. | 28.9 | 45 |
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| 115 | Direct Reprogramming of Human Neurons Identifies MARCKSL1 as a Pathogenic Mediator of Valproic Acid-Induced Teratogenicity. Cell Stem Cell, 2019, 25, 103-119.e6. | 11.1 | 43 |
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