

# Greg J Stuart

## List of Publications by Year in Descending Order

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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.

84  
papers

12,431  
citations

50  
h-index

91  
g-index

91  
ext. papers

14,050  
ext. citations

10.7  
avg, IF

6.55  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 84 | Auditory input enhances somatosensory encoding and tactile goal-directed behavior. <i>Nature Communications</i> , <b>2021</b> , 12, 4509  | 17.4 | 2         |
| 83 | Superior colliculus modulates cortical coding of somatosensory information. <i>Nature Communications</i> , <b>2020</b> , 11, 1693   | 17.4 | 19        |
| 82 | Paradoxical Excitatory Impact of SK Channels on Dendritic Excitability. <i>Journal of Neuroscience</i> , <b>2019</b> , 39, 7826-7839  | 6.6  | 7         |
| 81 | Peripheral Nerve Activation Evokes Machine-Learnable Signals in the Dorsal Column Nuclei. <i>Frontiers in Systems Neuroscience</i> , <b>2019</b> , 13, 11   | 3.5  | 5         |
| 80 | A Neuroethics Framework for the Australian Brain Initiative. <i>Neuron</i> , <b>2019</b> , 101, 365-369   | 13.9 | 5         |
| 79 | Holographic Functional Calcium Imaging of Neuronal Circuit Activity. <i>Progress in Optical Science and Photonics</i> , <b>2019</b> , 143-165   | 0.3  | 4         |
| 78 | Local versus Global Dendritic Integration. <i>Neuron</i> , <b>2019</b> , 103, 173-174   | 13.9 | 2         |
| 77 | Characterisation and functional mapping of surface potentials in the rat dorsal column nuclei. <i>Journal of Physiology</i> , <b>2017</b> , 595, 4507-4524  | 3.9  | 11        |
| 76 | GABA receptors in neocortical and hippocampal pyramidal neurons are coupled to different potassium channels. <i>European Journal of Neuroscience</i> , <b>2017</b> , 46, 2859-2866                  | 3.5  | 6         |
| 75 | Building Bridges through Science. <i>Neuron</i> , <b>2017</b> , 96, 730-735   | 13.9 | 2         |
| 74 | Dendritic small conductance calcium-activated potassium channels activated by action potentials suppress EPSPs and gate spike-timing dependent synaptic plasticity. <i>ELife</i> , <b>2017</b> , 6, | 8.9  | 20        |
| 73 | The Impact of BK Channels on Cellular Excitability Depends on their Subcellular Location. <i>Frontiers in Cellular Neuroscience</i> , <b>2016</b> , 10, 206   | 6.1  | 22        |
| 72 | Impact of calcium-activated potassium channels on NMDA spikes in cortical layer 5 pyramidal neurons. <i>Journal of Neurophysiology</i> , <b>2016</b> , 115, 1740-8                                  | 3.2  | 10        |
| 71 | Dendritic integration: 60 years of progress. <i>Nature Neuroscience</i> , <b>2015</b> , 18, 1713-21   | 25.5 | 237       |
| 70 | Different calcium sources control somatic versus dendritic SK channel activation during action potentials. <i>Journal of Neuroscience</i> , <b>2013</b> , 33, 19396-405                             | 6.6  | 25        |
| 69 | Sublinear integration underlies binocular processing in primary visual cortex. <i>Nature Neuroscience</i> , <b>2013</b> , 16, 714-23  | 25.5 | 34        |
| 68 | Four-dimensional multi-site photolysis of caged neurotransmitters. <i>Frontiers in Cellular Neuroscience</i> , <b>2013</b> , 7, 231   | 6.1  | 22        |

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|----|--|------|-----|
| 67 | Information Processing in Dendrites and Spines <b>2013</b> , 231-260   |      | 10  |
| 66 | Somatic and dendritic GABA(B) receptors regulate neuronal excitability via different mechanisms. <i>Journal of Neurophysiology</i> , <b>2012</b> , 108, 2810-8                             | 3.2  | 18  |
| 65 | Signal processing in the axon initial segment. <i>Neuron</i> , <b>2012</b> , 73, 235-47  | 13.9 | 285 |
| 64 | State and location dependence of action potential metabolic cost in cortical pyramidal neurons. <i>Nature Neuroscience</i> , <b>2012</b> , 15, 1007-14                                     | 25.5 | 97  |
| 63 | Dendritic spikes veto inhibition. <i>Neuron</i> , <b>2012</b> , 75, 744-6  | 13.9 | 2   |
| 62 | Electrical advantages of dendritic spines. <i>PLoS ONE</i> , <b>2012</b> , 7, e36007   | 3.7  | 53  |
| 61 | Initiation of simple and complex spikes in cerebellar Purkinje cells. <i>Journal of Physiology</i> , <b>2010</b> , 588, 1709-17  | 3.7  | 65  |
| 60 | Dendritic synapse location and neocortical spike-timing-dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , <b>2010</b> , 2, 29  | 3.5  | 53  |
| 59 | Membrane potential changes in dendritic spines during action potentials and synaptic input. <i>Journal of Neuroscience</i> , <b>2009</b> , 29, 6897-903                                    | 6.6  | 109 |
| 58 | Loss of sensory input increases the intrinsic excitability of layer 5 pyramidal neurons in rat barrel cortex. <i>Journal of Physiology</i> , <b>2009</b> , 587, 5107-19                    | 3.9  | 54  |
| 57 | Is action potential threshold lowest in the axon?. <i>Nature Neuroscience</i> , <b>2008</b> , 11, 1253-5   | 25.5 | 107 |
| 56 | Action potential generation requires a high sodium channel density in the axon initial segment. <i>Nature Neuroscience</i> , <b>2008</b> , 11, 178-86                                      | 25.5 | 450 |
| 55 | All asleep-but inhibition is wide awake. <i>Neuron</i> , <b>2008</b> , 57, 804-6   | 13.9 |     |
| 54 | Heterogeneity of phasic cholinergic signaling in neocortical neurons. <i>Journal of Neurophysiology</i> , <b>2007</b> , 97, 2215-29  | 3.2  | 156 |
| 53 | Inherited cortical HCN1 channel loss amplifies dendritic calcium electrogenesis and burst firing in a rat absence epilepsy model. <i>Journal of Physiology</i> , <b>2007</b> , 578, 507-25 | 3.9  | 118 |
| 52 | Does spike timing-dependent synaptic plasticity underlie memory formation?. <i>Clinical and Experimental Pharmacology and Physiology</i> , <b>2007</b> , 34, 1070-6                        | 3    | 23  |
| 51 | Dendritic mechanisms controlling spike-timing-dependent synaptic plasticity. <i>Trends in Neurosciences</i> , <b>2007</b> , 30, 456-63   | 13.3 | 107 |
| 50 | Axon initial segment Kv1 channels control axonal action potential waveform and synaptic efficacy. <i>Neuron</i> , <b>2007</b> , 55, 633-47   | 13.9 | 301 |

|    |  |      |     |
|----|--|------|-----|
| 49 | Dendritic integration <b>2007</b> , 350-399  |      | 5   |
| 48 | Learning rules for spike timing-dependent plasticity depend on dendritic synapse location. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 10420-9  | 6.6  | 211 |
| 47 | Single Ih channels in pyramidal neuron dendrites: properties, distribution, and impact on action potential output. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 1677-87                      | 6.6  | 172 |
| 46 | Calcium spikes in basal dendrites of layer 5 pyramidal neurons during action potential bursts. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 7424-32  | 6.6  | 94  |
| 45 | Cortical feed-forward networks for binding different streams of sensory information. <i>Nature Neuroscience</i> , <b>2006</b> , 9, 1472-3  | 25.5 | 105 |
| 44 | Dendritic patch-clamp recording. <i>Nature Protocols</i> , <b>2006</b> , 1, 1235-47  | 18.8 | 123 |
| 43 | Requirement of dendritic calcium spikes for induction of spike-timing-dependent synaptic plasticity. <i>Journal of Physiology</i> , <b>2006</b> , 574, 283-90                                      | 3.9  | 135 |
| 42 | Site of action potential initiation in layer 5 pyramidal neurons. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 1854-63   | 6.6  | 231 |
| 41 | Imaging membrane potential in dendrites and axons of single neurons. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2006</b> , 453, 403-10   | 4.6  | 30  |
| 40 | Synaptic integration in dendritic trees. <i>Journal of Neurobiology</i> , <b>2005</b> , 64, 75-90  |      | 191 |
| 39 | Cholinergic inhibition of neocortical pyramidal neurons. <i>Journal of Neuroscience</i> , <b>2005</b> , 25, 10308-20   | 6.6  | 132 |
| 38 | NMDA receptor kinetics are tuned for spike-timing dependent synaptic plasticity <b>2005</b> , 29-30  |      |     |
| 37 | Kinetics of Mg <sup>2+</sup> unblock of NMDA receptors: implications for spike-timing dependent synaptic plasticity. <i>Journal of Physiology</i> , <b>2004</b> , 556, 337-45                      | 3.9  | 132 |
| 36 | Voltage- and site-dependent control of the somatic impact of dendritic IPSPs. <i>Journal of Neuroscience</i> , <b>2003</b> , 23, 7358-67   | 6.6  | 90  |
| 35 | Action potential initiation and propagation in layer 5 pyramidal neurons of the rat prefrontal cortex: absence of dopamine modulation. <i>Journal of Neuroscience</i> , <b>2003</b> , 23, 11363-72 | 6.6  | 66  |
| 34 | Role of dendritic synapse location in the control of action potential output. <i>Trends in Neurosciences</i> , <b>2003</b> , 26, 147-54  | 13.3 | 166 |
| 33 | Excitatory actions of GABA in the cortex. <i>Neuron</i> , <b>2003</b> , 37, 299-309  | 13.9 | 320 |
| 32 | Membrane potential bistability is controlled by the hyperpolarization-activated current I(H) in rat cerebellar Purkinje neurons in vitro. <i>Journal of Physiology</i> , <b>2002</b> , 539, 469-83 | 3.9  | 141 |

|    |   |      |     |
|----|---|------|-----|
| 31 | Dependence of EPSP efficacy on synapse location in neocortical pyramidal neurons. <i>Science</i> , <b>2002</b> , 295, 1907-10   | 33.3 | 282 |
| 30 | Dendritic coincidence detection of EPSPs and action potentials. <i>Nature Neuroscience</i> , <b>2001</b> , 4, 63-71   | 25.5 | 267 |
| 29 | Differential shunting of EPSPs by action potentials. <i>Science</i> , <b>2001</b> , 291, 138-41   | 33.3 | 83  |
| 28 | Determinants of spike timing-dependent synaptic plasticity. <i>Neuron</i> , <b>2001</b> , 32, 966-8   | 13.9 | 5   |
| 27 | Patch-pipet recording in brain slices. <i>Current Protocols in Neuroscience</i> , <b>2001</b> , Chapter 6, Unit 6.7   | 2.7  | 3   |
| 26 | Action potential backpropagation and somato-dendritic distribution of ion channels in thalamocortical neurons. <i>Journal of Neuroscience</i> , <b>2000</b> , 20, 1307-17                 | 6.6  | 139 |
| 25 | Backpropagation of physiological spike trains in neocortical pyramidal neurons: implications for temporal coding in dendrites. <i>Journal of Neuroscience</i> , <b>2000</b> , 20, 8238-46 | 6.6  | 71  |
| 24 | Site independence of EPSP time course is mediated by dendritic I(h) in neocortical pyramidal neurons. <i>Journal of Neurophysiology</i> , <b>2000</b> , 83, 3177-82                       | 3.2  | 284 |
| 23 | Direct measurement of specific membrane capacitance in neurons. <i>Biophysical Journal</i> , <b>2000</b> , 79, 314-20   | 2.9  | 296 |
| 22 | Diversity and dynamics of dendritic signaling. <i>Science</i> , <b>2000</b> , 290, 739-44   | 33.3 | 599 |
| 21 | Mechanisms and consequences of action potential burst firing in rat neocortical pyramidal neurons. <i>Journal of Physiology</i> , <b>1999</b> , 521 Pt 2, 467-82                          | 3.9  | 202 |
| 20 | Voltage-activated sodium channels amplify inhibition in neocortical pyramidal neurons. <i>Nature Neuroscience</i> , <b>1999</b> , 2, 144-50   | 25.5 | 61  |
| 19 | Determinants of voltage attenuation in neocortical pyramidal neuron dendrites. <i>Journal of Neuroscience</i> , <b>1998</b> , 18, 3501-10   | 6.6  | 404 |
| 18 | Action potential initiation and backpropagation in neurons of the mammalian CNS. <i>Trends in Neurosciences</i> , <b>1997</b> , 20, 125-31  | 13.3 | 579 |
| 17 | Calcium action potentials restricted to distal apical dendrites of rat neocortical pyramidal neurons. <i>Journal of Physiology</i> , <b>1997</b> , 505 ( Pt 3), 605-16                    | 3.9  | 384 |
| 16 | Action potential initiation and propagation in rat neocortical pyramidal neurons. <i>Journal of Physiology</i> , <b>1997</b> , 505 ( Pt 3), 617-32  | 3.9  | 420 |
| 15 | Activity-dependent action potential invasion and calcium influx into hippocampal CA1 dendrites. <i>Science</i> , <b>1995</b> , 268, 297-300   | 33.3 | 680 |
| 14 | Amplification of EPSPs by axosomatic sodium channels in neocortical pyramidal neurons. <i>Neuron</i> , <b>1995</b> , 15, 1065-76  | 13.9 | 371 |

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|----|---|------|------|
| 13 | Axonal initiation and active dendritic propagation of action potentials in substantia nigra neurons. <i>Neuron</i> , <b>1995</b> , 15, 637-47   | 13.9 | 236  |
| 12 | Probing dendritic function with patch pipettes. <i>Current Opinion in Neurobiology</i> , <b>1995</b> , 5, 389-94  | 7.6  | 23   |
| 11 | Patch-Pipette Recordings from the Soma, Dendrites, and Axon of Neurons in Brain Slices <b>1995</b> , 199-211  |      | 40   |
| 10 | Active propagation of somatic action potentials into neocortical pyramidal cell dendrites. <i>Nature</i> , <b>1994</b> , 367, 69-72   | 50.4 | 1064 |
| 9  | Initiation and spread of sodium action potentials in cerebellar Purkinje cells. <i>Neuron</i> , <b>1994</b> , 13, 703-12  | 13.9 | 271  |
| 8  | Patch-clamp recordings from the soma and dendrites of neurons in brain slices using infrared video microscopy. <i>Pflugers Archiv European Journal of Physiology</i> , <b>1993</b> , 423, 511-8 | 4.6  | 684  |
| 7  | The role of GABAA and GABAB receptors in presynaptic inhibition of Ia EPSPs in cat spinal motoneurons. <i>Journal of Physiology</i> , <b>1992</b> , 447, 675-92                                 | 3.9  | 86   |
| 6  | Mechanisms of presynaptic inhibition studied using paired-pulse facilitation. <i>Neuroscience Letters</i> , <b>1991</b> , 126, 179-83   | 3.3  | 31   |
| 5  | Voltage dependence of Ia reciprocal inhibitory currents in cat spinal motoneurons. <i>Journal of Physiology</i> , <b>1990</b> , 420, 111-25   | 3.9  | 44   |
| 4  | Characteristics of reflex excitation in close synergist muscles evoked by muscle vibration. <i>Experimental Brain Research</i> , <b>1986</b> , 65, 127-34                                       | 2.3  | 8    |
| 3  | The initial burst of impulses in responses of toad muscle spindles during stretch. <i>Journal of Physiology</i> , <b>1985</b> , 368, 1-17   | 3.9  | 20   |
| 2  | Superior colliculus modulates cortical coding of somatosensory information  |      | 3    |
| 1  | Dendritic spikes in apical oblique dendrites of cortical layer 5 pyramidal neurons  |      | 1    |