

Christiaan P J De Kock

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

4,363
citations

136740

32
h-index

197535

49
g-index

54
all docs

54
docs citations

54
times ranked

4942
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Strong and reliable synaptic communication between pyramidal neurons in adult human cerebral cortex. <i>Cerebral Cortex</i> , 2023, 33, 2857-2878. | 1.6 | 21 |
| 2 | Cellular Substrates of Functional Network Integration and Memory in Temporal Lobe Epilepsy. <i>Cerebral Cortex</i> , 2022, 32, 2424-2436. | 1.6 | 6 |
| 3 | Multisensory task demands temporally extend the causal requirement for visual cortex in perception. <i>Nature Communications</i> , 2022, 13, . | 5.8 | 12 |
| 4 | High-frequency burst spiking in layer 5 thick-tufted pyramids of rat primary somatosensory cortex encodes exploratory touch. <i>Communications Biology</i> , 2021, 4, 709. | 2.0 | 35 |
| 5 | Human neocortical expansion involves glutamatergic neuron diversification. <i>Nature</i> , 2021, 598, 151-158. | 13.7 | 160 |
| 6 | Cortical Output Is Gated by Horizontally Projecting Neurons in the Deep Layers. <i>Neuron</i> , 2020, 105, 122-137.e8. | 3.8 | 40 |
| 7 | A community-based transcriptomics classification and nomenclature of neocortical cell types. <i>Nature Neuroscience</i> , 2020, 23, 1456-1468. | 7.1 | 183 |
| 8 | Functional Architecture and Encoding of Tactile Sensorimotor Behavior in Rat Posterior Parietal Cortex. <i>Journal of Neuroscience</i> , 2019, 39, 7332-7343. | 1.7 | 15 |
| 9 | Prefrontal cortical ChAT-VIP interneurons provide local excitation by cholinergic synaptic transmission and control attention. <i>Nature Communications</i> , 2019, 10, 5280. | 5.8 | 65 |
| 10 | The Posterior Parietal Cortex as Integrative Hub for Whisker Sensorimotor Information. <i>Neuroscience</i> , 2018, 368, 240-245. | 1.1 | 38 |
| 11 | Neural Representation of Motor Output, Context and Behavioral Adaptation in Rat Medial Prefrontal Cortex During Learned Behavior. <i>Frontiers in Neural Circuits</i> , 2018, 12, 75. | 1.4 | 9 |
| 12 | Sensory representation of an auditory cued tactile stimulus in the posterior parietal cortex of the mouse. <i>Scientific Reports</i> , 2018, 8, 7739. | 1.6 | 20 |
| 13 | Human Cortical Pyramidal Neurons: From Spines to Spikes via Models. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 181. | 1.8 | 102 |
| 14 | Barrel Cortex Function Special Issue Editorial. <i>Neuroscience</i> , 2018, 368, 1-2. | 1.1 | 4 |
| 15 | Large and fast human pyramidal neurons associate with intelligence. <i>ELife</i> , 2018, 7, . | 2.8 | 103 |
| 16 | Calcium Dynamics in Basal Dendrites of Layer 5A and 5B Pyramidal Neurons Is Tuned to the Cell-Type Specific Physiological Action Potential Discharge. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 194. | 1.8 | 5 |
| 17 | Comprehensive Morpho-Electrotonic Analysis Shows 2 Distinct Classes of L2 and L3 Pyramidal Neurons in Human Temporal Cortex. <i>Cerebral Cortex</i> , 2017, 27, 5398-5414. | 1.6 | 85 |
| 18 | Sustained Attentional States Require Distinct Temporal Involvement of the Dorsal and Ventral Medial Prefrontal Cortex. <i>Frontiers in Neural Circuits</i> , 2016, 10, 70. | 1.4 | 39 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Layer-specific cholinergic control of human and mouse cortical synaptic plasticity. <i>Nature Communications</i> , 2016, 7, 12826. | 5.8 | 65 |
| 20 | Juxtosomal Loose-Patch Recordings in Awake, Head-Fixed Rats to Study the Link Between Structure and Function of Individual Neurons. <i>Neuromethods</i> , 2016, , 21-35. | 0.2 | 1 |
| 21 | Unique membrane properties and enhanced signal processing in human neocortical neurons. <i>ELife</i> , 2016, 5, . | 2.8 | 154 |
| 22 | Dendritic and Axonal Architecture of Individual Pyramidal Neurons across Layers of Adult Human Neocortex. <i>Cerebral Cortex</i> , 2015, 25, 4839-4853. | 1.6 | 194 |
| 23 | Beyond Columnar Organization: Cell Type- and Target Layer-Specific Principles of Horizontal Axon Projection Patterns in Rat Vibrissal Cortex. <i>Cerebral Cortex</i> , 2015, 25, 4450-4468. | 1.6 | 104 |
| 24 | Mice with megalencephalic leukoencephalopathy with cysts: A developmental angle. <i>Annals of Neurology</i> , 2015, 77, 114-131. | 2.8 | 57 |
| 25 | High Bandwidth Synaptic Communication and Frequency Tracking in Human Neocortex. <i>PLoS Biology</i> , 2014, 12, e1002007. | 2.6 | 163 |
| 26 | Dendrites Impact the Encoding Capabilities of the Axon. <i>Journal of Neuroscience</i> , 2014, 34, 8063-8071. | 1.7 | 129 |
| 27 | Juxtosomal Biocytin Labeling to Study the Structure-function Relationship of Individual Cortical Neurons. <i>Journal of Visualized Experiments</i> , 2014, , e51359. | 0.2 | 26 |
| 28 | Layer-Specific Modulation of the Prefrontal Cortex by Nicotinic Acetylcholine Receptors. <i>Cerebral Cortex</i> , 2013, 23, 148-161. | 1.6 | 142 |
| 29 | Mechanisms Underlying the Rules for Associative Plasticity at Adult Human Neocortical Synapses. <i>Journal of Neuroscience</i> , 2013, 33, 17197-17208. | 1.7 | 104 |
| 30 | Layer-specific high-frequency action potential spiking in the prefrontal cortex of awake rats. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 99. | 1.8 | 29 |
| 31 | 3D Reconstruction and Standardization of the Rat Vibrissal Cortex for Precise Registration of Single Neuron Morphology. <i>PLoS Computational Biology</i> , 2012, 8, e1002837. | 1.5 | 45 |
| 32 | Cell Type-Specific Three-Dimensional Structure of Thalamocortical Circuits in a Column of Rat Vibrissal Cortex. <i>Cerebral Cortex</i> , 2012, 22, 2375-2391. | 1.6 | 270 |
| 33 | State and location dependence of action potential metabolic cost in cortical pyramidal neurons. <i>Nature Neuroscience</i> , 2012, 15, 1007-1014. | 7.1 | 144 |
| 34 | Hyperconnectivity and Slow Synapses during Early Development of Medial Prefrontal Cortex in a Mouse Model for Mental Retardation and Autism. <i>Cerebral Cortex</i> , 2012, 22, 1333-1342. | 1.6 | 110 |
| 35 | Label-free live brain imaging and targeted patching with third-harmonic generation microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 5970-5975. | 3.3 | 150 |
| 36 | Three-dimensional axon morphologies of individual layer 5 neurons indicate cell type-specific intracortical pathways for whisker motion and touch. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4188-4193. | 3.3 | 119 |

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|----|---|-----|-----------|
| 37 | Semi-automated three-dimensional reconstructions of individual neurons reveal cell type-specific circuits in cortex. <i>Communicative and Integrative Biology</i> , 2011, 4, 486-488. | 0.6 | 5 |
| 38 | Human synapses show a wide temporal window for spike-timing-dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 12. | 1.3 | 83 |
| 39 | Dimensions of a Projection Column and Architecture of VPM and POm Axons in Rat Vibrissal Cortex. <i>Cerebral Cortex</i> , 2010, 20, 2265-2276. | 1.6 | 202 |
| 40 | Cell Type-Specific Thalamic Innervation in a Column of Rat Vibrissal Cortex. <i>Cerebral Cortex</i> , 2010, 20, 2287-2303. | 1.6 | 169 |
| 41 | Number and Laminar Distribution of Neurons in a Thalamocortical Projection Column of Rat Vibrissal Cortex. <i>Cerebral Cortex</i> , 2010, 20, 2277-2286. | 1.6 | 157 |
| 42 | Spiking in primary somatosensory cortex during natural whisking in awake head-restrained rats is cell-type specific. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 16446-16450. | 3.3 | 201 |
| 43 | Sensory Experience Alters Specific Branches of Individual Corticocortical Axons during Development. <i>Journal of Neuroscience</i> , 2009, 29, 3172-3181. | 1.7 | 58 |
| 44 | Driver or Coincidence Detector: Modal Switch of a Corticothalamic Giant Synapse Controlled by Spontaneous Activity and Short-Term Depression. <i>Journal of Neuroscience</i> , 2008, 28, 9652-9663. | 1.7 | 126 |
| 45 | Spatial Organization of Neuronal Population Responses in Layer 2/3 of Rat Barrel Cortex. <i>Journal of Neuroscience</i> , 2007, 27, 13316-13328. | 1.7 | 236 |
| 46 | NMDA receptors induce somatodendritic secretion in hypothalamic neurones of lactating female rats. <i>Journal of Physiology</i> , 2004, 561, 53-64. | 1.3 | 42 |
| 47 | Somatodendritic Secretion in Oxytocin Neurons Is Upregulated during the Female Reproductive Cycle. <i>Journal of Neuroscience</i> , 2003, 23, 2726-2734. | 1.7 | 95 |