

# Philipp Koch

## List of Publications by Year in descending order

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61  
papers

4,681  
citations

109321

35  
h-index

123424

61  
g-index

62  
all docs

62  
docs citations

62  
times ranked

7673  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | A rosette-type, self-renewing human ES cell-derived neural stem cell with potential for in vitro instruction and synaptic integration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 3225-3230. | 7.1  | 456       |
| 2  | Small molecules enable highly efficient neuronal conversion of human fibroblasts. <i>Nature Methods</i> , 2012, 9, 575-578.   | 19.0 | 288       |
| 3  | Excitation-induced ataxin-3 aggregation in neurons from patients with Machado-Joseph disease. <i>Nature</i> , 2011, 480, 543-546.   | 27.8 | 282       |
| 4  | Human-Induced Pluripotent Stem Cells form Functional Neurons and Improve Recovery After Grafting in Stroke-Damaged Brain. <i>Stem Cells</i> , 2012, 30, 1120-1133.  | 3.2  | 264       |
| 5  | Capture of Neuroepithelial-Like Stem Cells from Pluripotent Stem Cells Provides a Versatile System for In Vitro Production of Human Neurons. <i>PLoS ONE</i> , 2012, 7, e29597.   | 2.5  | 254       |
| 6  | Human induced pluripotent stem cell-derived cortical neurons integrate in stroke-injured cortex and improve functional recovery. <i>Brain</i> , 2013, 136, 3561-3577.   | 7.6  | 225       |
| 7  | An Organoid-Based Model of Cortical Development Identifies Non-Cell-Autonomous Defects in Wnt Signaling Contributing to Miller-Dieker Syndrome. <i>Cell Reports</i> , 2017, 19, 50-59.  | 6.4  | 223       |
| 8  | Inhibition of Notch Signaling in Human Embryonic Stem Cell-Derived Neural Stem Cells Delays G1/S Phase Transition and Accelerates Neuronal Differentiation <i>In Vitro</i> and <i>In Vivo</i> . <i>Stem Cells</i> , 2010, 28, 955-964.                | 3.2  | 215       |
| 9  | Leveling Waddington: the emergence of direct programming and the loss of cell fate hierarchies. <i>Nature Reviews Molecular Cell Biology</i> , 2013, 14, 225-236.   | 37.0 | 200       |
| 10 | Suppression of kindling epileptogenesis by adenosine releasing stem cell-derived brain implants. <i>Brain</i> , 2007, 130, 1276-1288.   | 7.6  | 151       |
| 11 | Anticancer Effects of Niclosamide in Human Glioblastoma. <i>Clinical Cancer Research</i> , 2013, 19, 4124-4136.   | 7.0  | 135       |
| 12 | The Death Receptor CD95 Activates Adult Neural Stem Cells for Working Memory Formation and Brain Repair. <i>Cell Stem Cell</i> , 2009, 5, 178-190.  | 11.1 | 120       |
| 13 | Analysis of short tandem repeat expansions and their methylation state with nanopore sequencing. <i>Nature Biotechnology</i> , 2019, 37, 1478-1481.   | 17.5 | 117       |
| 14 | Presenilin-1 L166P Mutant Human Pluripotent Stem Cell-Derived Neurons Exhibit Partial Loss of $\beta$ -Secretase Activity in Endogenous Amyloid- $\beta$ Generation. <i>American Journal of Pathology</i> , 2012, 180, 2404-2416.                     | 3.8  | 104       |
| 15 | Site-specific recombination in human embryonic stem cells induced by cell-permeant Cre recombinase. <i>Nature Methods</i> , 2006, 3, 461-467.   | 19.0 | 100       |
| 16 | Emerging concepts in neural stem cell research: autologous repair and cell-based disease modelling. <i>Lancet Neurology</i> , The, 2009, 8, 819-829.  | 10.2 | 97        |
| 17 | Nucleofection of Human Embryonic Stem Cells. <i>Stem Cells and Development</i> , 2005, 14, 378-383.   | 2.1  | 89        |
| 18 | Specific Inhibition of $\beta$ -Secretase Processing of the Alzheimer Disease Amyloid Precursor Protein. <i>Cell Reports</i> , 2016, 14, 2127-2141.   | 6.4  | 87        |

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|----|---|------|-----------|
| 19 | Phosphorylation of the amyloid $\beta$ -peptide at Ser26 stabilizes oligomeric assembly and increases neurotoxicity. <i>Acta Neuropathologica</i> , 2016, 131, 525-537.   | 7.7  | 84        |
| 20 | A novel human high-risk ependymoma stem cell model reveals the differentiation-inducing potential of the histone deacetylase inhibitor Vorinostat. <i>Acta Neuropathologica</i> , 2011, 122, 637-650.   | 7.7  | 77        |
| 21 | Targeting the Cytosolic Innate Immune Receptors RIG-I and MDA5 Effectively Counteracts Cancer Cell Heterogeneity in Glioblastoma. <i>Stem Cells</i> , 2013, 31, 1064-1074.  | 3.2  | 76        |
| 22 | MicroRNA-Based Promotion of Human Neuronal Differentiation and Subtype Specification. <i>PLoS ONE</i> , 2013, 8, e59011.  | 2.5  | 73        |
| 23 | Human induced pluripotent stem cells improve recovery in stroke-injured aged rats. <i>Restorative Neurology and Neuroscience</i> , 2014, 32, 547-558.   | 0.7  | 60        |
| 24 | APP Processing in Human Pluripotent Stem Cell-Derived Neurons Is Resistant to NSAID-Based $\beta$ -Secretase Modulation. <i>Stem Cell Reports</i> , 2013, 1, 491-498.   | 4.8  | 58        |
| 25 | <i>C9orf72</i> -derived arginine-containing dipeptide repeats associate with axonal transport machinery and impede microtubule-based motility. <i>Science Advances</i> , 2021, 7, .   | 10.3 | 57        |
| 26 | Engineering Genetic Predisposition in Human Neuroepithelial Stem Cells Recapitulates Medulloblastoma Tumorigenesis. <i>Cell Stem Cell</i> , 2019, 25, 433-446.e7.   | 11.1 | 56        |
| 27 | Human embryonic stem cell-derived neurons establish region-specific, long-range projections in the adult brain. <i>Cellular and Molecular Life Sciences</i> , 2012, 69, 461-470.  | 5.4  | 55        |
| 28 | Optogenetics Reveal Delayed Afferent Synaptogenesis on Grafted Human-Induced Pluripotent Stem Cell-Derived Neural Progenitors. <i>Stem Cells</i> , 2014, 32, 3088-3098.   | 3.2  | 49        |
| 29 | Whole-brain 3D mapping of human neural transplant innervation. <i>Nature Communications</i> , 2017, 8, 14162.   | 12.8 | 46        |
| 30 | Arylsulfatase A Overexpressing Human iPSC-derived Neural Cells Reduce CNS Sulfatide Storage in a Mouse Model of Metachromatic Leukodystrophy. <i>Molecular Therapy</i> , 2015, 23, 1519-1531.   | 8.2  | 44        |
| 31 | The Alzheimer's Disease $\beta$ -Secretase Generates Higher 42:40 Ratios for $\beta$ -Amyloid Than for p3 Peptides. <i>Cell Reports</i> , 2017, 19, 1967-1976.  | 6.4  | 40        |
| 32 | DNA methylation alterations in iPSC- and hESC-derived neurons: potential implications for neurological disease modeling. <i>Clinical Epigenetics</i> , 2018, 10, 13.  | 4.1  | 39        |
| 33 | Automated Large-Scale Culture and Medium-Throughput Chemical Screen for Modulators of Proliferation and Viability of Human Induced Pluripotent Stem Cell-Derived Neuroepithelial-like Stem Cells. <i>Journal of Biomolecular Screening</i> , 2013, 18, 258-268. | 2.6  | 38        |
| 34 | Lineage Selection of Functional and Cryopreservable Human Embryonic Stem Cell-Derived Neurons. <i>Stem Cells</i> , 2008, 26, 1705-1712.   | 3.2  | 37        |
| 35 | Embryonic Stem Cell-Based Modeling of Tau Pathology in Human Neurons. <i>American Journal of Pathology</i> , 2013, 182, 1769-1779.  | 3.8  | 35        |
| 36 | Auto-attraction of neural precursors and their neuronal progeny impairs neuronal migration. <i>Nature Neuroscience</i> , 2014, 17, 24-26.   | 14.8 | 35        |

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|----|---|------|-----------|
| 37 | Tumor-derived mutations within the DNA-binding domain of p53 that phenotypically resemble the deletion of the proline-rich domain. <i>Oncogene</i> , 2000, 19, 1834-1842.     | 5.9  | 32        |
| 38 | Chronic Granulomatous Herpes Simplex Encephalitis in Children. <i>Journal of Neuropathology and Experimental Neurology</i> , 2004, 63, 1173-1181.                             | 1.7  | 30        |
| 39 | Generation of Standardized and Reproducible Forebrain-type Cerebral Organoids from Human Induced Pluripotent Stem Cells. <i>Journal of Visualized Experiments</i> , 2018, , . | 0.3  | 30        |
| 40 | Transduction of human embryonic stem cells by ecotropic retroviral vectors. <i>Nucleic Acids Research</i> , 2006, 34, e120-e120.  | 14.5 | 25        |
| 41 | Induction of Amyloid- $\beta$ 242 Production by Fipronil and Other Pyrazole Insecticides. <i>Journal of Alzheimer's Disease</i> , 2018, 62, 1663-1681.                        | 2.6  | 23        |
| 42 | Human cerebral organoids reveal progenitor pathology in EML1-linked cortical malformation. <i>EMBO Reports</i> , 2022, , e54027.  | 4.5  | 19        |
| 43 | Laser-Assisted Photoablation of Human Pluripotent Stem Cells from Differentiating Cultures. <i>Stem Cell Reviews and Reports</i> , 2010, 6, 260-269.                          | 5.6  | 17        |
| 44 | Bivalent histone modifications in stem cells poise miRNA loci for CpG island hypermethylation in human cancer. <i>Epigenetics</i> , 2011, 6, 1344-1353.                       | 2.7  | 16        |
| 45 | Functional Neuronal Cells Generated by Human Parthenogenetic Stem Cells. <i>PLoS ONE</i> , 2012, 7, e42800.   | 2.5  | 14        |
| 46 | Specific Triazine Herbicides Induce Amyloid- $\beta$ 242 Production. <i>Journal of Alzheimer's Disease</i> , 2016, 54, 1593-1605.   | 2.6  | 14        |
| 47 | Cortical organoids: why all this hype?. <i>Current Opinion in Genetics and Development</i> , 2018, 52, 22-28.   | 3.3  | 13        |
| 48 | In vitro segregation and isolation of human pluripotent stem cell-derived neural crest cells. <i>Methods</i> , 2018, 133, 65-80.  | 3.8  | 10        |
| 49 | hiPSC-Derived Schwann Cells Influence Myogenic Differentiation in Neuromuscular Cocultures. <i>Cells</i> , 2021, 10, 3292.  | 4.1  | 10        |
| 50 | Drug discovery in psychopharmacology: from 2D models to cerebral organoids. <i>Dialogues in Clinical Neuroscience</i> , 2019, 21, 203-224.                                    | 3.7  | 9         |
| 51 | p66ShcA adaptor molecule accelerates ES cell neural induction. <i>Molecular and Cellular Neurosciences</i> , 2009, 41, 74-84.   | 2.2  | 8         |
| 52 | Genome Editing in Neuroepithelial Stem Cells to Generate Human Neurons with High Adenosine-Releasing Capacity. <i>Stem Cells Translational Medicine</i> , 2018, 7, 477-486.   | 3.3  | 8         |
| 53 | MTSS1 is epigenetically regulated in glioma cells and inhibits glioma cell motility. <i>Translational Oncology</i> , 2017, 10, 70-79.   | 3.7  | 6         |
| 54 | In Vitro Recapitulation of Developmental Transitions in Human Neural Stem Cells. <i>Stem Cells</i> , 2019, 37, 1429-1440.   | 3.2  | 6         |

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|----|--|------|-----------|
| 55 | Cerebral organoids to unravel the mechanisms underlying malformations of human cortical development. <i>Seminars in Cell and Developmental Biology</i> , 2021, 111, 15-22.                               | 5.0  | 5         |
| 56 | Asymmetric Notch activity by differential inheritance of lysosomes in human neural stem cells. <i>Science Advances</i> , 2022, 8, eabl5792.  | 10.3 | 5         |
| 57 | Nucleofection of Human Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2008, 423, 131-138.   | 0.9  | 4         |
| 58 | Direct Conversion Provides Old Neurons from Aged Donor's Skin. <i>Cell Stem Cell</i> , 2015, 17, 637-638.  | 11.1 | 3         |
| 59 | Voltammetric Approach for Characterizing the Biophysical and Chemical Functionality of Human Induced Pluripotent Stem Cell-Derived Serotonin Neurons. <i>Analytical Chemistry</i> , 2022, 94, 8847-8856. | 6.5  | 3         |
| 60 | A Little Bit of Guidance: Mini Brains on Their Route to Adolescence. <i>Cell Stem Cell</i> , 2017, 21, 157-158.  | 11.1 | 1         |
| 61 | Differentiation of Human Pluripotent Stem Cells into Neural Precursors. , 2012, , 375-384.   |      | 0         |