## James K Chen

List of Publications by Year in descending order

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IAMES K CHEN

| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Inhibition of Hedgehog signaling by direct binding of cyclopamine to Smoothened. Genes and Development, 2002, 16, 2743-2748.   | 5.9  | 1,318     |
| 2  | Effects of oncogenic mutations in Smoothened and Patched can be reversed by cyclopamine. Nature, 2000, 406, 1005-1009.   | 27.8 | 1,243     |
| 3  | Structural basis for the binding of proline-rich peptides to SH3 domains. Cell, 1994, 76, 933-945.   | 28.9 | 1,018     |
| 4  | Small molecule modulation of Smoothened activity. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14071-14076.                              | 7.1  | 907       |
| 5  | Two binding orientations for peptides to the Src SH3 domain: development of a general model for SH3-ligand interactions. Science, 1994, 266, 1241-1247.                                | 12.6 | 818       |
| 6  | Medulloblastoma Growth Inhibition by Hedgehog Pathway Blockade. Science, 2002, 297, 1559-1561.   | 12.6 | 760       |
| 7  | Stromal response to Hedgehog signaling restrains pancreatic cancer progression. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3091-100. | 7.1  | 421       |
| 8  | Organic wastewater treatment by a single-atom catalyst and electrolytically produced H2O2. Nature Sustainability, 2021, 4, 233-241.  | 23.7 | 350       |
| 9  | Small-molecule inhibitors of the AAA+ ATPase motor cytoplasmic dynein. Nature, 2012, 484, 125-129.   | 27.8 | 342       |
| 10 | Purmorphamine activates the Hedgehog pathway by targeting Smoothened. Nature Chemical Biology, 2006, 2, 29-30.   | 8.0  | 330       |
| 11 | The BAH domain of ORC1 links H4K20me2 to DNA replication licensing and Meier–Gorlin syndrome.<br>Nature, 2012, 484, 115-119.   | 27.8 | 314       |
| 12 | Small-molecule inhibitors reveal multiple strategies for Hedgehog pathway blockade. Proceedings of the United States of America, 2009, 106, 14132-14137.                               | 7.1  | 274       |
| 13 | A small molecule that binds Hedgehog and blocks its signaling in human cells. Nature Chemical<br>Biology, 2009, 5, 154-156.  | 8.0  | 273       |
| 14 | Activity-Dependent Internalization of Smoothened Mediated by Â-Arrestin 2 and GRK2. Science, 2004, 306, 2257-2260.   | 12.6 | 264       |
| 15 | A crucial requirement for Hedgehog signaling in small cell lung cancer. Nature Medicine, 2011, 17, 1504-1508.  | 30.7 | 224       |
| 16 | Light-controlled gene silencing in zebrafish embryos. Nature Chemical Biology, 2007, 3, 650-651.   | 8.0  | 209       |
| 17 | An inducible long noncoding RNA amplifies DNA damage signaling. Nature Genetics, 2016, 48, 1370-1376.  | 21.4 | 195       |
| 18 | Centrosome repositioning in T cells is biphasic and driven by microtubule end-on capture-shrinkage.<br>Journal of Cell Biology, 2013, 202, 779-792.                                    | 5.2  | 145       |

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|----|--|------|-----------|
| 19 | A CRISPR-based screen for Hedgehog signaling provides insights into ciliary function and ciliopathies.<br>Nature Genetics, 2018, 50, 460-471.  | 21.4 | 140       |
| 20 | General Method for Regulating Protein Stability with Light. ACS Chemical Biology, 2014, 9, 111-115.  | 3.4  | 127       |
| 21 | Biased combinatorial libraries: novel ligands for the SH3 domain of phosphatidylinositol 3-kinase.<br>Journal of the American Chemical Society, 1993, 115, 12591-12592.  | 13.7 | 126       |
| 22 | Smoothened Signal Transduction Is Promoted by G Protein-Coupled Receptor Kinase 2. Molecular and Cellular Biology, 2006, 26, 7550-7560.  | 2.3  | 114       |
| 23 | Direct kinetochore–spindle pole connections are not required for chromosome segregation. Journal of Cell Biology, 2014, 206, 231-243.  | 5.2  | 109       |
| 24 | Versatile Synthesis and Rational Design of Caged Morpholinos. Journal of the American Chemical Society, 2009, 131, 13255-13269.  | 13.7 | 101       |
| 25 | Sequential Gene Silencing Using Wavelength‣elective Caged Morpholino Oligonucleotides.<br>Angewandte Chemie - International Edition, 2014, 53, 10114-10118.  | 13.8 | 97        |
| 26 | Protein Structure-Based Combinatorial Chemistry:Â Discovery of Non-Peptide Binding Elements to Src<br>SH3 Domain. Journal of the American Chemical Society, 1996, 118, 287-288.  | 13.7 | 94        |
| 27 | The identification of myriocin-binding proteins. Chemistry and Biology, 1999, 6, 221-235.  | 6.0  | 88        |
| 28 | Diacylglycerol promotes centrosome polarization in T cells via reciprocal localization of dynein and<br>myosin II. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110,<br>11976-11981. | 7.1  | 86        |
| 29 | Illuminating developmental biology through photochemistry. Nature Chemical Biology, 2017, 13, 587-598.   | 8.0  | 75        |
| 30 | Neuropilins are positive regulators of Hedgehog signal transduction. Genes and Development, 2011, 25, 2333-2346.   | 5.9  | 73        |
| 31 | Control of inflammation by stromal Hedgehog pathway activation restrains colitis. Proceedings of the United States of America, 2016, 113, E7545-E7553.   | 7.1  | 73        |
| 32 | Correcting glucose-6-phosphate dehydrogenase deficiency with a small-molecule activator. Nature<br>Communications, 2018, 9, 4045.  | 12.8 | 70        |
| 33 | A Small-Molecule Smoothened Agonist Prevents Glucocorticoid-Induced Neonatal Cerebellar Injury.<br>Science Translational Medicine, 2011, 3, 105ra104.  | 12.4 | 67        |
| 34 | Controlling Destiny through Chemistry: Small-Molecule Regulators of Cell Fate. ACS Chemical<br>Biology, 2010, 5, 15-34.  | 3.4  | 65        |
| 35 | Small-molecule regulation of zebrafish gene expression. Nature Chemical Biology, 2007, 3, 154-155.   | 8.0  | 62        |
| 36 | Ultrasensitive optical imaging with lanthanide lumiphores. Nature Chemical Biology, 2018, 14, 15-21.   | 8.0  | 61        |

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|----|--|------|-----------|
| 37 | The decoupling of Smoothened from Gαi proteins has little effect on Gli3 protein processing and<br>Hedgehog-regulated chick neural tube patterning. Developmental Biology, 2008, 321, 188-196.     | 2.0  | 60        |
| 38 | Cyclic Caged Morpholinos: Conformationally Gated Probes of Embryonic Gene Function. Angewandte<br>Chemie - International Edition, 2012, 51, 6908-6911.   | 13.8 | 55        |
| 39 | I only have eye for ewe: the discovery of cyclopamine and development of Hedgehog pathway-targeting<br>drugs. Natural Product Reports, 2016, 33, 595-601.  | 10.3 | 53        |
| 40 | Converse Conformational Control of Smoothened Activity by Structurally Related Small Molecules.<br>Journal of Biological Chemistry, 2009, 284, 20876-20884.  | 3.4  | 51        |
| 41 | Crystal Structure of P13K SH3 Domain at 2.0 Ã Resolution. Journal of Molecular Biology, 1996, 257,<br>632-643.   | 4.2  | 49        |
| 42 | Lanthanide-Based Optical Probes of Biological Systems. Cell Chemical Biology, 2020, 27, 921-936.   | 5.2  | 43        |
| 43 | Combinatorial Synthesis and Multidimensional NMR Spectroscopy: An Approach to Understanding<br>Protein–Ligand Interactions. Angewandte Chemie International Edition in English, 1995, 34, 953-969. | 4.4  | 42        |
| 44 | HIPK4 is essential for murine spermiogenesis. ELife, 2020, 9, .  | 6.0  | 40        |
| 45 | Spatiotemporal resolution of the Ntla transcriptome in axial mesoderm development. Nature Chemical Biology, 2012, 8, 270-276.  | 8.0  | 39        |
| 46 | The Imidazopyridine Derivativeâ€JK184 Reveals Dual Roles for Microtubules in Hedgehog Signaling.<br>Angewandte Chemie - International Edition, 2009, 48, 2321-2324.                                | 13.8 | 37        |
| 47 | Roles of Hedgehog pathway components and retinoic acid signalling in specifying zebrafish ventral spinal cord neurons. Development (Cambridge), 2011, 138, 5121-5134.                              | 2.5  | 36        |
| 48 | Arhgap36-dependent activation of Gli transcription factors. Proceedings of the National Academy of<br>Sciences of the United States of America, 2014, 111, 11061-11066.                            | 7.1  | 35        |
| 49 | Hyaluronic acid synthesis is required for zebrafish tail fin regeneration. PLoS ONE, 2017, 12, e0171898.   | 2.5  | 34        |
| 50 | Post-transcriptional mechanisms contribute to Etv2 repression during vascular development.<br>Developmental Biology, 2013, 384, 128-140.   | 2.0  | 31        |
| 51 | Chemical structure-guided design of dynapyrazoles, cell-permeable dynein inhibitors with a unique mode of action. ELife, 2017, 6, .  | 6.0  | 31        |
| 52 | Chemical â€Jekyll and Hyde's: small-molecule inhibitors of developmental signaling pathways. Chemical<br>Society Reviews, 2011, 40, 4318.  | 38.1 | 30        |
| 53 | Oligonucleotide-Based Tools for Studying Zebrafish Development. Zebrafish, 2010, 7, 31-40.   | 1.1  | 28        |
| 54 | Affinity Capillary Electrophoresis: Insights into the Binding of SH3 Domains by Peptides Derived from an SH3-Binding Protein. Journal of Organic Chemistry, 1994, 59, 2885-2886.                   | 3.2  | 26        |

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| 55 | Sequential Gene Silencing Using Wavelengthâ€Selective Caged Morpholino Oligonucleotides.<br>Angewandte Chemie, 2014, 126, 10278-10282.   | 2.0  | 26        |
| 56 | Functional inhibition of UQCRB suppresses angiogenesis in zebrafish. Biochemical and Biophysical Research Communications, 2013, 433, 396-400.  | 2.1  | 25        |
| 57 | Chemical technologies for probing embryonic development. Chemical Society Reviews, 2008, 37, 1294.   | 38.1 | 24        |
| 58 | Small Molecule Control of Morpholino Antisense Oligonucleotide Function through Staudinger Reduction. Journal of the American Chemical Society, 2021, 143, 18665-18671.  | 13.7 | 23        |
| 59 | Nitroreductase-Activatable Morpholino Oligonucleotides for <i>in Vivo</i> Gene Silencing. ACS<br>Chemical Biology, 2014, 9, 1985-1990.   | 3.4  | 20        |
| 60 | Germ cell migration in zebrafish is cyclopamine-sensitive but Smoothened-independent. Developmental<br>Biology, 2009, 328, 342-354.  | 2.0  | 19        |
| 61 | Cytoplasmic Dynein Antagonists with Improved Potency and Isoform Selectivity. ACS Chemical Biology, 2016, 11, 53-60.   | 3.4  | 19        |
| 62 | Targeted cell ablation in zebrafish using optogenetic transcriptional control. Development<br>(Cambridge), 2020, 147, .  | 2.5  | 17        |
| 63 | Targeting colorectal cancer with small-molecule inhibitors of ALDH1B1. Nature Chemical Biology, 2022, 18, 1065-1075.   | 8.0  | 17        |
| 64 | Affinity electrophoresis in multisectional polyacrylamide slab gels is a useful and convenient<br>technique for measuring binding constants of aryl sulfonamides to bovine carbonic anhydrase B.<br>Analytical Chemistry, 1993, 65, 1314-1322. | 6.5  | 16        |
| 65 | Basal constriction during midbrain-hindbrain boundary morphogenesis is mediated by Wnt5b and focal adhesion kinase. Biology Open, 2018, 7, .   | 1.2  | 16        |
| 66 | In Vivo Imaging of Hedgehog Pathway Activation with a Nuclear Fluorescent Reporter. PLoS ONE, 2014,<br>9, e103661.   | 2.5  | 16        |
| 67 | Gene regulation technologies in zebrafish. Molecular BioSystems, 2008, 4, 300.   | 2.9  | 14        |
| 68 | Optochemical Dissection of T-box Gene-Dependent Medial Floor Plate Development. ACS Chemical<br>Biology, 2015, 10, 1466-1475.  | 3.4  | 14        |
| 69 | Spatiotemporal Control of Embryonic Gene Expression Using Caged Morpholinos. Methods in Cell<br>Biology, 2011, 104, 151-172.   | 1.1  | 12        |
| 70 | Hedgehog and retinoic acid signaling cooperate to promote motoneurogenesis in zebrafish.<br>Development (Cambridge), 2011, 138, 5113-5119.   | 2.5  | 12        |
| 71 | SH3 domain-mediated dimerization of an n-terminal fragment of the phosphatidylinositol 3-kinase p85 subunit. Bioorganic and Medicinal Chemistry Letters, 1994, 4, 1755-1760.   | 2.2  | 11        |
| 72 | Synthetic Strategies for Studying Embryonic Development. Chemistry and Biology, 2010, 17, 590-606.   | 6.0  | 11        |

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| 73 | Tbx16 regulates hox gene activation in mesodermal progenitor cells. Nature Chemical Biology, 2016, 12, 694-701.   | 8.0 | 11        |
| 74 | Bicyclic Imidazolium Inhibitors of Gli Transcription Factor Activity. ChemMedChem, 2020, 15, 1044-1049.   | 3.2 | 10        |
| 75 | Kombinatorische Synthese und mehrdimensionale NMRâ€Spektroskopie: ein Beitrag zum Verstädnis von<br>Proteinâ€Ligandâ€Wechselwirkungen. Angewandte Chemie, 1995, 107, 1041-1058. | 2.0 | 9         |
| 76 | A novel missense variant in the GLI3 zinc finger domain in a family with digital anomalies. American<br>Journal of Medical Genetics, Part A, 2017, 173, 3221-3225.              | 1.2 | 7         |
| 77 | Combinatorial control of gene function with wavelength-selective caged morpholinos. Methods in Enzymology, 2019, 624, 69-88.  | 1.0 | 7         |
| 78 | Discovery of novel determinants of endothelial lineage using chimeric heterokaryons. ELife, 2017, 6, .  | 6.0 | 7         |
| 79 | Lineage Labeling of Zebrafish Cells with Laser Uncagable Fluorescein Dextran. Journal of Visualized Experiments, 2011, , .  | 0.3 | 6         |
| 80 | Fish 'n clicks. Nature Chemical Biology, 2008, 4, 391-392.  | 8.0 | 5         |
| 81 | Thinking big with small molecules. Journal of Cell Biology, 2015, 209, 7-9.   | 5.2 | 5         |
| 82 | Small-Molecule Inhibitors of the Hedgehog Pathway. , 2011, , 163-186.   |     | 3         |
| 83 | Molecular Recognition in Gels, Monolayers, and Solids. ACS Symposium Series, 1992, , 227-239.   | 0.5 | 2         |
| 84 | Structure-activity mapping of ARHGAP36 reveals regulatory roles for its GAP homology and C-terminal domains. PLoS ONE, 2021, 16, e0251684.                                      | 2.5 | 2         |
| 85 | Targeted and Conditional Gene Expression Workshop, 8th International Conference on Zebrafish<br>Development and Genetics. Zebrafish, 2008, 5, 193-195.                          | 1.1 | 1         |
| 86 | trLRET microscopy: Ultrasensitive imaging of lanthanide luminophores. Methods in Enzymology, 2020, 640, 225-248.  | 1.0 | 1         |
| 87 | Emerging technologies in molecular imaging: new windows into biology. Current Opinion in Chemical Biology, 2013, 17, 635-636.   | 6.1 | 0         |