## Benjamin P Kleinstiver

## List of Publications by Citations

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52 5,999 22 63 g-index

63 7,810 20.3 6.04 ext. papers ext. citations avg, IF L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 52 | High-fidelity CRISPR-Cas9 nucleases with no detectable genome-wide off-target effects. <i>Nature</i> , <b>2016</b> , 529, 490-5   | 50.4 | 1600      |
| 51 | Engineered CRISPR-Cas9 nucleases with altered PAM specificities. <i>Nature</i> , <b>2015</b> , 523, 481-5   | 50.4 | 1061      |
| 50 | Enhanced proofreading governs CRISPR-Cas9 targeting accuracy. <i>Nature</i> , <b>2017</b> , 550, 407-410  | 50.4 | 619       |
| 49 | Genome-wide specificities of CRISPR-Cas Cpf1 nucleases in human cells. <i>Nature Biotechnology</i> , <b>2016</b> , 34, 869-74   | 44.5 | 415       |
| 48 | Broadening the targeting range of Staphylococcus aureus CRISPR-Cas9 by modifying PAM recognition. <i>Nature Biotechnology</i> , <b>2015</b> , 33, 1293-1298                                   | 44.5 | 381       |
| 47 | Unconstrained genome targeting with near-PAMless engineered CRISPR-Cas9 variants. <i>Science</i> , <b>2020</b> , 368, 290-296   | 33.3 | 325       |
| 46 | Engineered CRISPR-Cas12a variants with increased activities and improved targeting ranges for gene, epigenetic and base editing. <i>Nature Biotechnology</i> , <b>2019</b> , 37, 276-282      | 44.5 | 235       |
| 45 | Inducible and multiplex gene regulation using CRISPR-Cpf1-based transcription factors. <i>Nature Methods</i> , <b>2017</b> , 14, 1163-1166  | 21.6 | 132       |
| 44 | Discovery of widespread type I and type V CRISPR-Cas inhibitors. <i>Science</i> , <b>2018</b> , 362, 240-242  | 33.3 | 129       |
| 43 | Prediction of off-target activities for the end-to-end design of CRISPR guide RNAs. <i>Nature Biomedical Engineering</i> , <b>2018</b> , 2, 38-47   | 19   | 127       |
| 42 | Activities and specificities of CRISPR/Cas9 and Cas12a nucleases for targeted mutagenesis in maize. <i>Plant Biotechnology Journal</i> , <b>2019</b> , 17, 362-372                            | 11.6 | 125       |
| 41 | High levels of AAV vector integration into CRISPR-induced DNA breaks. <i>Nature Communications</i> , <b>2019</b> , 10, 4439   | 17.4 | 119       |
| 40 | Isocitrate Dehydrogenase Mutations Confer Dasatinib Hypersensitivity and SRC Dependence in Intrahepatic Cholangiocarcinoma. <i>Cancer Discovery</i> , <b>2016</b> , 6, 727-39                 | 24.4 | 94        |
| 39 | Allele-specific gene editing prevents deafness in a model of dominant progressive hearing loss. <i>Nature Medicine</i> , <b>2019</b> , 25, 1123-1130  | 50.5 | 84        |
| 38 | CRISPR/Cas9 Mediated Disruption of the Swedish APP Allele as a Therapeutic Approach for Early-Onset Alzheimer's Disease. <i>Molecular Therapy - Nucleic Acids</i> , <b>2018</b> , 11, 429-440 | 10.7 | 71        |
| 37 | Allele-Specific CRISPR-Cas9 Genome Editing of the Single-Base P23H Mutation for Rhodopsin-Associated Dominant Retinitis Pigmentosa. <i>CRISPR Journal</i> , <b>2018</b> , 1, 55-64            | 2.5  | 60        |
| 36 | Hypoxia drives transient site-specific copy gain and drug-resistant gene expression. <i>Genes and Development</i> , <b>2015</b> , 29, 1018-31   | 12.6 | 55        |

## (2021-2012)

| 35 | Monomeric site-specific nucleases for genome editing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 8061-6  | 11.5 | 47 |
|----|---|------|----|
| 34 | Astrocytic interleukin-3 programs microglia and limits Alzheimer's disease. <i>Nature</i> , <b>2021</b> , 595, 701-706  | 50.4 | 41 |
| 33 | Optimization of AsCas12a for combinatorial genetic screens in human cells. <i>Nature Biotechnology</i> , <b>2021</b> , 39, 94-104   | 44.5 | 34 |
| 32 | Listeria Phages Induce Cas9 Degradation to Protect Lysogenic Genomes. <i>Cell Host and Microbe</i> , <b>2020</b> , 28, 31-40.e9   | 23.4 | 30 |
| 31 | Broad-spectrum anti-CRISPR proteins facilitate horizontal gene transfer. <i>Nature Microbiology</i> , <b>2020</b> , 5, 620-629  | 26.6 | 29 |
| 30 | The I-TevI nuclease and linker domains contribute to the specificity of monomeric TALENs. <i>G3: Genes, Genomes, Genetics</i> , <b>2014</b> , 4, 1155-65  | 3.2  | 17 |
| 29 | Strand-specific contacts and divalent metal ion regulate double-strand break formation by the GIY-YIG homing endonuclease I-Bmol. <i>Journal of Molecular Biology</i> , <b>2007</b> , 374, 306-21                   | 6.5  | 15 |
| 28 | Camptothecin resistance is determined by the regulation of topoisomerase I degradation mediated by ubiquitin proteasome pathway. <i>Oncotarget</i> , <b>2017</b> , 8, 43733-43751                                   | 3.3  | 15 |
| 27 | A unified genetic, computational and experimental framework identifies functionally relevant residues of the homing endonuclease I-BmoI. <i>Nucleic Acids Research</i> , <b>2010</b> , 38, 2411-27                  | 20.1 | 13 |
| 26 | Enhanced homology-directed repair for highly efficient gene editing in hematopoietic stem/progenitor cells. <i>Blood</i> , <b>2021</b> , 137, 2598-2608   | 2.2  | 13 |
| 25 | Temporal and Spatial Post-Transcriptional Regulation of Zebrafish mRNA by Long Noncoding RNA During Brain Vascular Assembly. <i>Arteriosclerosis, Thrombosis, and Vascular Biology,</i> <b>2018</b> , 38, 1562-1575 | 9.4  | 12 |
| 24 | The monomeric GIY-YIG homing endonuclease I-BmoI uses a molecular anchor and a flexible tether to sequentially nick DNA. <i>Nucleic Acids Research</i> , <b>2013</b> , 41, 5413-27                                  | 20.1 | 11 |
| 23 | Optimization of AsCas12a for combinatorial genetic screens in human cells   |      | 11 |
| 22 | Listeriaphages induce Cas9 degradation to protect lysogenic genomes   |      | 11 |
| 21 | In vivo engineering of lymphocytes after systemic exosome-associated AAV delivery. <i>Scientific Reports</i> , <b>2020</b> , 10, 4544   | 4.9  | 10 |
| 20 | Divalent metal ion differentially regulates the sequential nicking reactions of the GIY-YIG homing endonuclease I-Bmol. <i>PLoS ONE</i> , <b>2011</b> , 6, e23804   | 3.7  | 6  |
| 19 | Enhanced proofreading governs CRISPR-Cas9 targeting accuracy  |      | 5  |
| 18 | Whole-genome sequencing association analysis of quantitative red blood cell phenotypes: The NHLBI TOPMed program. <i>American Journal of Human Genetics</i> , <b>2021</b> , 108, 874-893                            | 11   | 5  |

| 17 | NNT mediates redox-dependent pigmentation via a UVB- and MITF-independent mechanism. <i>Cell</i> , <b>2021</b> , 184, 4268-4283.e20   | 56.2          | 5 |
|----|---|---------------|---|
| 16 | Cell-based artificial APC resistant to lentiviral transduction for efficient generation of CAR-T cells from various cell sources <b>2020</b> , 8,   |               | 4 |
| 15 | Scalable characterization of the PAM requirements of CRISPR-Cas enzymes using HT-PAMDA. <i>Nature Protocols</i> , <b>2021</b> , 16, 1511-1547   | 18.8          | 4 |
| 14 | enAsCas12a Enables CRISPR-Directed Evolution to Screen for Functional Drug Resistance Mutations in Sequences Inaccessible to SpCas9. <i>Molecular Therapy</i> , <b>2021</b> , 29, 208-224 | 11.7          | 4 |
| 13 | Mutant Allele-Specific CRISPR Disruption in DYT1 Dystonia Fibroblasts Restores Cell Function.<br>Molecular Therapy - Nucleic Acids, <b>2020</b> , 21, 1-12                                | 10.7          | 3 |
| 12 | Plant genome editing branches out. <i>Nature Plants</i> , <b>2021</b> , 7, 4-5  | 11.5          | 3 |
| 11 | Genome-wide specificity profiles of CRISPR-Cas Cpf1 nucleases in human cells  |               | 2 |
| 10 | Allele-specific CRISPR/Cas9 genome editing of the single-base P23H mutation for rhodopsin associated dominant retinitis pigmentosa  |               | 2 |
| 9  | Rapid screening of endonuclease target site preference using a modified bacterial two-plasmid selection. <i>Methods in Molecular Biology</i> , <b>2014</b> , 1123, 97-104                 | 1.4           | 1 |
| 8  | Estimating the evidence of selection and the reliability of inference in unigenic evolution. <i>Algorithms for Molecular Biology</i> , <b>2010</b> , 5, 35                                | 1.8           | 1 |
| 7  | Whole genome sequencing association analysis of quantitative red blood cell phenotypes: the NHLBI TOPMed program  |               | 1 |
| 6  | Inducible, tunable and multiplex human gene regulation using CRISPR-Cpf1-based transcription factors  |               | 1 |
| 5  | CRISPR-targeted MAGT1 insertion restores XMEN patient hematopoietic stem cells and lymphocytes. <i>Blood</i> , <b>2021</b> ,  | 2.2           | 1 |
| 4  | Genome editing in animals with minimal PAM CRISPR-Cas9 enzymes <i>Nature Communications</i> , <b>2022</b> , 13, 2601  | 17.4          | 1 |
| 3  | Making the cut with PAMless CRISPR-Cas enzymes. <i>Trends in Genetics</i> , <b>2021</b> , 37, 1053-1055   | 8.5           | O |
| 2  | CRISPR-Cas knockout of miR21 reduces glioma growth <i>Molecular Therapy - Oncolytics</i> , <b>2022</b> , 25, 121-13   | 8 <b>6</b> .4 | 0 |
| 1  | Lack of Cas13a inhibition by anti-CRISPR proteins from Leptotrichia prophages. <i>Molecular Cell</i> , <b>2022</b> , 82, 2161-2166.e3   | 17.6          | 0 |