

Cell line engineering reading list

We've compiled a list of recent publications that utilizes Revvity's cell line engineering services to enhance scientific research and progress drug discovery. Covering areas around knockouts and knockins that can be applied to your research and workflows.

Andrews S.L., Ghaderi-Najafabadi M., Gong P. et al.

SVEP1 influences monocyte to macrophage differentiation via integrin $\alpha 4\beta 1/\alpha 9\beta 1$ and Rho/Rac signalling. *Molecular Cell Research* 1870 (2023) 119479. <https://doi.org/10.1016/j.bbamcr.2023.119479>

Keywords: Knockout; CMV-Cas9 reagent

Dalton W.B., Helmenstine E., Walsh N. et al.

Hotspot SF3B1 mutations induce metabolic reprogramming and vulnerability to serine deprivation. *J Clin Invest.* 2019;129(11):4708-4723. <https://www.jci.org/articles/view/125022>

Keywords: SNP-Knockin

Gaule, P., Smithy J.W., Toki M. et al.

A Quantitative Comparison of Antibodies to PD-L1. *JAMA Oncol.* 2017 February 01; 3(2): 256-259. <https://jamanetwork.com/journals/jamaoncology/fullarticle/2544606>

Germann U.A., Furey B.F., Markland W. et al.

Targeting the MAPK Signaling Pathway in Cancer: Promising Preclinical Activity with the Novel Selective ERK1/2 Inhibitor BVD-523 (Ulixertinib). *Mol Cancer Ther.* 2017 Nov;16(11):2351-2363. <https://aacrjournals.org/mct/article/16/11/2351/146150/Targeting-the-MAPK-Signaling-Pathway-in-Cancer>

Keywords: HAP1 cells; Chalice software; RKO MEK1 mutant line; AAV-mediated; SW48 (mt KRAS) isogenic lines; Combination studies

Guzzardo P.M., Rashkova C., dos Santos R.L., et al. A small cassette enables conditional gene inactivation by CRISPR/Cas9. *Sci Rep.* 2017 Dec 1;7(1):16770. <https://www.nature.com/articles/s41598-017-16931-z>

Keywords: Knockin; HAP1 cells

Hsu C.W., Huang R., Khuc T. et al.

Identification of approved and investigational drugs that inhibit hypoxia-inducible factor-1 signaling. *Oncotarget.* 2016 Feb 16;7(7):8172-83. <https://www.oncotarget.com/article/6995/text/>

Keywords: NanoLuc Knockin; Envision and ViewLux plate readers; Spotfire Software; Dharmacon siRNA

Jones, P.D., Kaiser M.A., Najafabadi M.G. et al.

The Coronary Artery Disease-associated Coding Variant in Zinc Finger C3HC-type Containing 1 (ZC3HC1) Affects Cell Cycle Regulation. *J Biol Chem.* 2016 Jul 29;291(31):16318-27.
[https://www.jbc.org/article/S0021-9258\(20\)42455-X/fulltext](https://www.jbc.org/article/S0021-9258(20)42455-X/fulltext)

Keywords: Integration by rAAV; Isogenic DLD-1 cell lines; CAD variant rs11556924

Klapholz B., Levy H., Kumbha R. et al.

Highly efficient multiplex genetic engineering of porcine primary fetal fibroblasts. *Surgery Open Science* 4 (2021) 26-31 <https://www.sciencedirect.com/science/article/pii/S2589845020300324?via%3Dihub>

Lekomtsev S., Aligianni S., Lapao A., et al. Efficient generation and reversion of chromosomal translocations using CRISPR/Cas technology. *BMC Genomics.* 2016 Sep 17;17(1):739.
<https://bmcbgenomics.biomedcentral.com/articles/10.1186/s12864-016-3084-5>

Keywords: HAP1 KO

Morris G.E., Denniff M.J., Karamanavi E., et al. The integrin ligand SVEP1 regulates GPCR-mediated vasoconstriction via integrins $\alpha 9\beta 1$ and $\alpha 4\beta 1$. *Br J Pharmacol.* 2022 Nov;179(21):4958-4973.
<https://bpspubs.onlinelibrary.wiley.com/doi/10.1111/bph.15921>

Keywords: Isogenic pairs; SVEP1 -/- GM23270 iPSC line; Dharmacon siRNAs

Gaule P., Smithy J.W., Toki M., et al. BCL7A-containing SWI/SNF/BAF complexes modulate mitochondrial bioenergetics during neural progenitor differentiation. *The EMBO Journal* (2022) 41: e110595.
<https://www.embopress.org/doi/full/10.15252/embj.2022110595>

Keywords: iPSC KO; BCL7A KO; smNPCs



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