

Publications with Horizon Edit-R™ *in vivo* CRISPR-Cas9 reagents

These publications demonstrate the use of Horizon Discovery's Edit-R CRISPR-Cas9 reagents for *in vivo* gene editing applications, including precise knock-in and target gene knockout in a variety of tumor and animal models.

Rodent

1. Flamier A, Abdouh M, Hamam R, Barabino A, Patel N, Gao A, Hanna R and Bernier G. (2020). [Off target effect of the BMI1 inhibitor PTC596 drives epithelial to mesenchymal transition in glioblastoma multiforme](#). *npj Precision Oncology*, **4**:1.
Methods: mouse intracranial tumor transplant
2. Cai X, Qiao J, Knox T, Iriah S, Kulkarni P, Madularu D, Morrison T, Waszczak B, Hartner J and Ferris C. (2020). [In search of early neuroradiological biomarkers for Parkinson's Disease: Alterations in state functional connectivity and gray matter microarchitecture in PINK1-/- rats](#). *Brain Research*, **1706**:58-67.
Methods: rat embryo microinjection
3. Melton M, le Sage C, Schulte M, Leeson-Payne A, Blanck M, Lawo S, Deeds S and Cross B. (2019). [CRISPR screening in xenograft models for in vivo drug MOA](#). *Horizon Discovery Poster*.
Methods: mouse xenograft tumor model
4. Ferris C, Morrison T, Iriah S, Malmberg S, Kulkarni P, Hartner J and Trivedi M. (2018). [Evidence of neurobiological changes in the presymptomatic PINK1 knockout rat](#). *Journal of Parkinson's Disease*. **8(2)**:281-301.
Methods: rat embryo microinjection

5. Bishop K, Harrington A, Kouanova E, Weinstein E, Rosen C, Cui X and Liaw Lucy. (2016). [CRISPR/Cas-9 mediated insertion of loxP sites in the mouse Dock7 gene provides an effective alternative to use of targeted embryonic stem cells](#). *G3: Genes, Genomes, Genetics*, **6(7)** 2051-2061.
Methods: mouse embryo microinjection
6. Kouanova E, Forbes K, Zhao G, Warren J, Bartels A, Wu Y and Cui X. (2016). [CRISPRs for optimal targeting: delivery of CRISPR components as RNA, DNA and protein into cultured cells and single-cell embryos](#). *Human Gene Therapy*, **27(6)** 464-475.
Methods: mouse and rat embryo microinjection, Cas9 mRNA or Cas9 protein with sgRNA

Nematodes

1. Gang S, Castelletto M, Bryant A, Yang E, Mancuso N, Lopez J, Pellegrini M and Hallem E. (2017). [Targeted mutagenesis in a human-parasitic nematode](#). *Plos Pathogens*, **13(10)**.
Methods: injection of adult parasitic nematode *Strongyloides stercoralis*
2. Paix A, Folkmann A and Seydoux G. (2017). [Precision genome editing using CRISPR-Cas9 and linear repair templates in C. elegans](#). *Methods*, **121-122**: 86-93.
Methods: injection of adult *Caenorhabditis elegans* to produce offspring with edits
3. Paix A, Schmidt H and Seydoux G. (2016). [Cas9-assisted recombineering in C. elegans: genome editing using in vivo assembly of linear DNAs](#). *Nucleic Acids Reserach*, **44(15)**: 128.
Methods: injection of adult *Caenorhabditis elegans* to produce offspring with edits

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