Washington University in St. Louis
Office of Technology Management

IN VIVO EDITING VIA TARGETED ADENOVIRAL VECTORS

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Background:

Viral vectors have been used for *in vivo* delivery of CRISPR/Cas9. However, it's applications have been limited by the native tropism of the viral vector. To better utilize *in vivo* editing, methods must be developed to accomplish efficient, selective and coordinated delivery of CRISPR/Cas9 components to the relevant target cell.

Technology Description:

Dr. David Curiel at Washington University School of Medicine has developed a method to perform *in vivo* editing in specific tissue types by combining targeted adenovirus with CRISPR/Cas9. This is made possible due to the unique capacities of adenovirus. The packaging capacity of adenovirus allows vector incorporation of all CRISPR/Cas9 elements ensuring efficient coordinated functionality. Adenovirus's ability to allow tropism modification makes *in vivo* targeting feasible. Thus, targeted adenovirus embodies the unique set of attributes required for the key endpoint of targeted *in vivo* gene editing.

Key Advantages:

- Targeted *in vivo* gene editing
- Safe Harbor locus