

Site-Specific Integration of Transgenes In Mammalian Cells and Animals

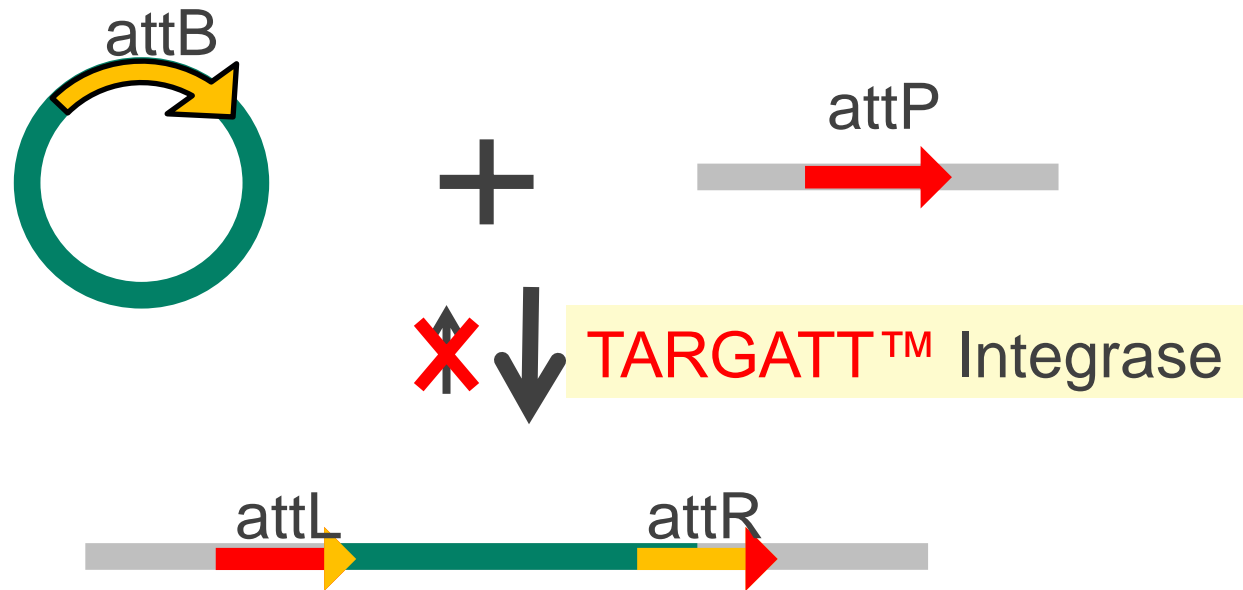
Applied StemCell, Inc.

Reference:

Tasic B, Hippenmeyer S, Wang C, Gamboa M, Zong H, Chen-Tsai Y, and Luo L.
Site-specific integrase-mediated transgenesis in mice via pronuclear injection. *PNAS*. 108(19):7902-7, 2011

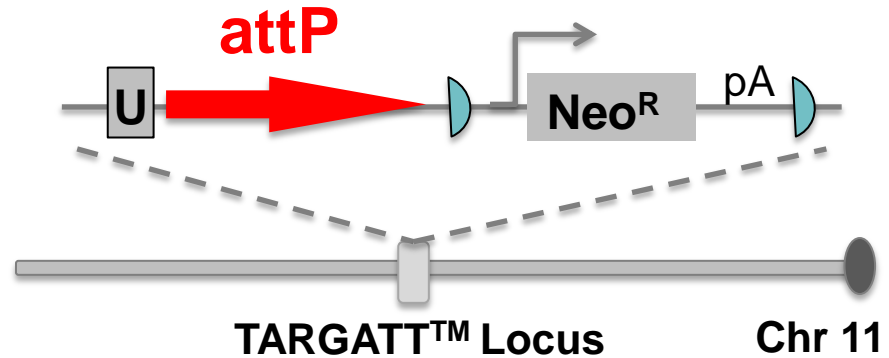


TARGATT™ Integrase Catalyzes Irreversible and Site-specific Gene Integration

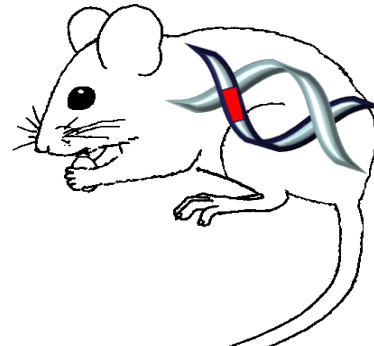


TARGATT™ attP Knock-in Mouse

Mouse strains containing attP sites were generated and successfully tested for site-specific integration at the attP sites

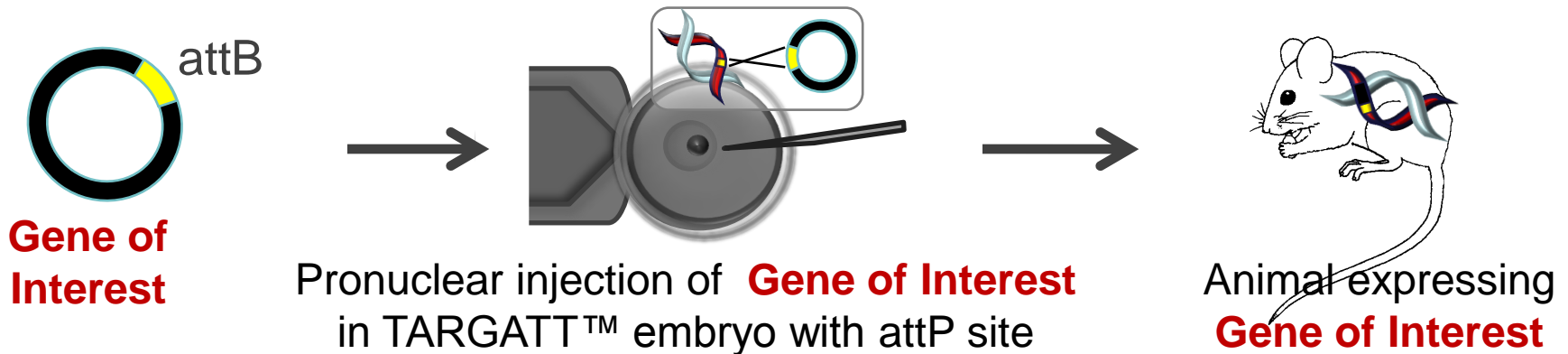


Homologous recombination in ES cells and germline transmission

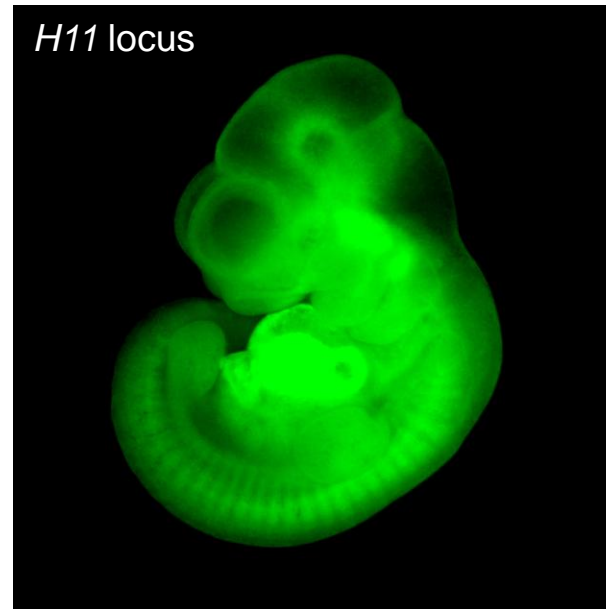


Generating Site-specific Transgenic Mice via Pronuclear Injection

Using **TARGATT™** Integrase to insert single copy transgenes at our proprietary locus in the mouse genome



In Vivo Test

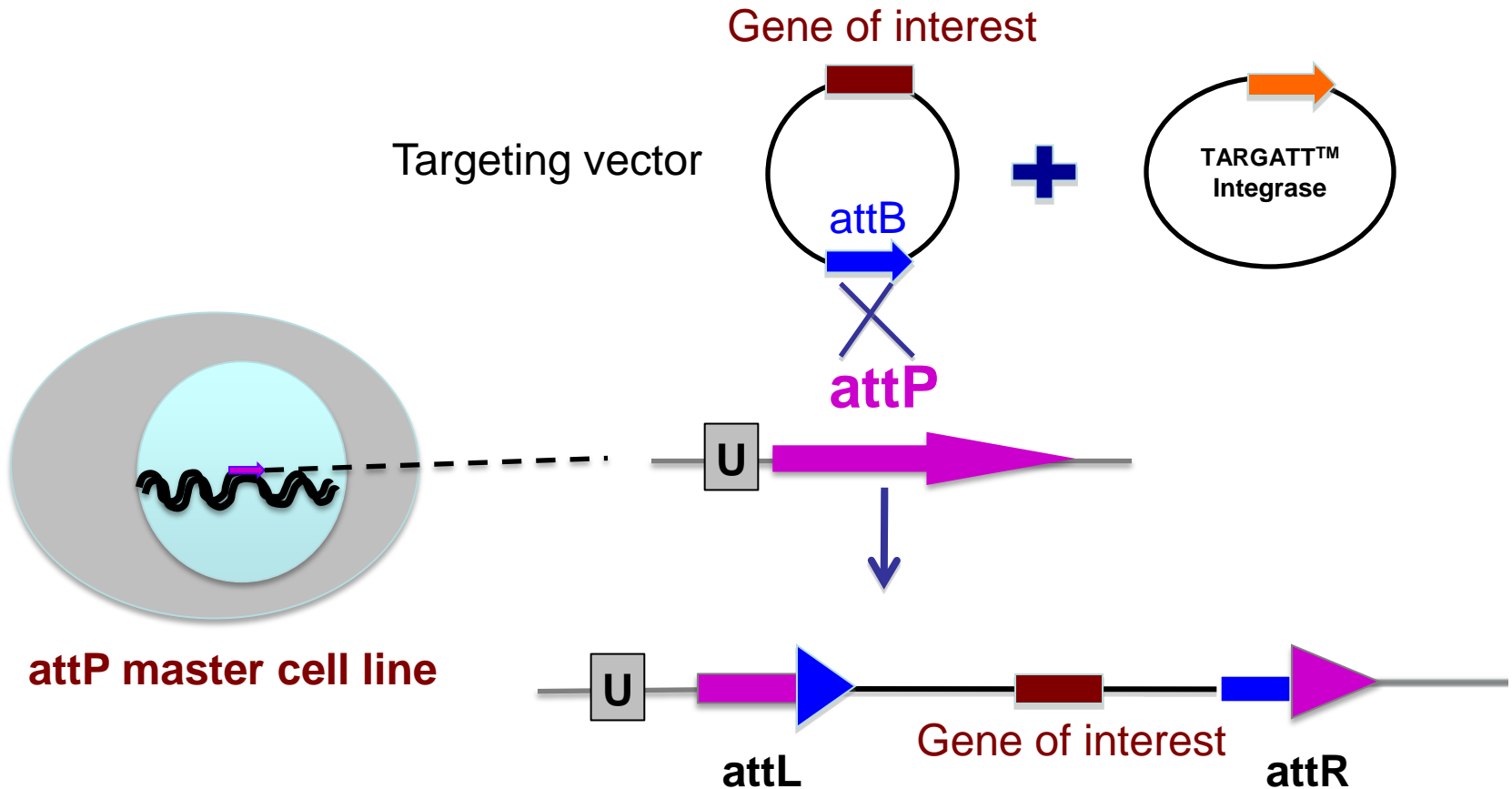


Site-specific **GFP** transgenesis -
proof of principle

Adapted from *Tasic B*, et al. 2011



Application of **TARGATT™** Technology in Cell Lines



Advantages of TARGATT™

- **Site-specific DNA integration in a transcriptionally active locus**
 - Ensure robust gene expression
 - Eliminate unpredictable position effect
- **Stable integrant cell lines with a high level of gene expression**
- **Savings in time (months) and costs**

Contact:

-Custom Service

-Embryo and Kits

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Applied StemCell, Inc.

