



Applied StemCell



Fast! Transgenic Mice

TARGATT™

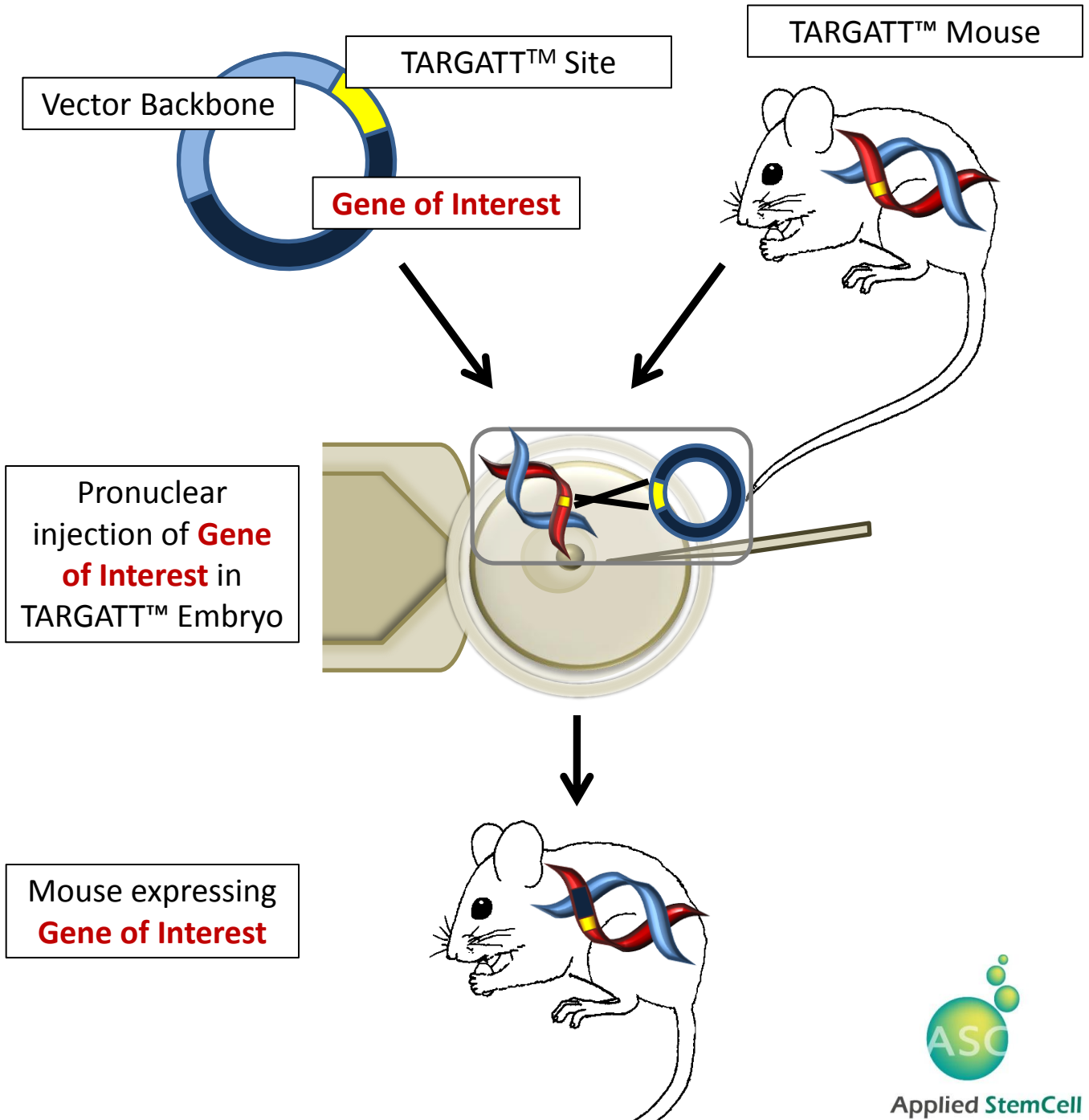
Application Guide

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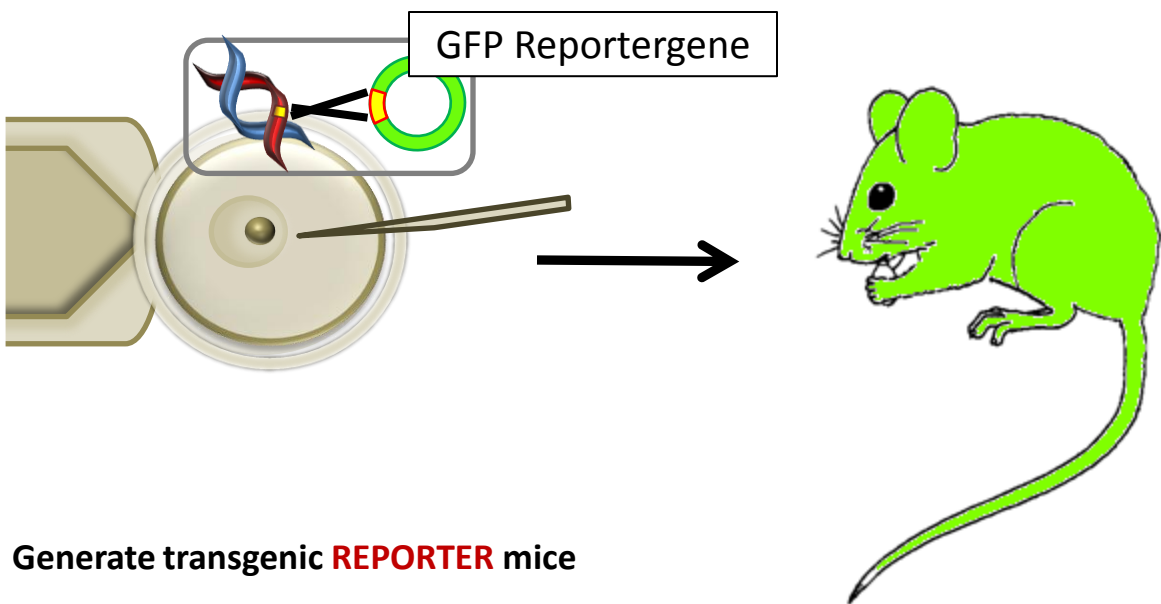
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Technology Overview



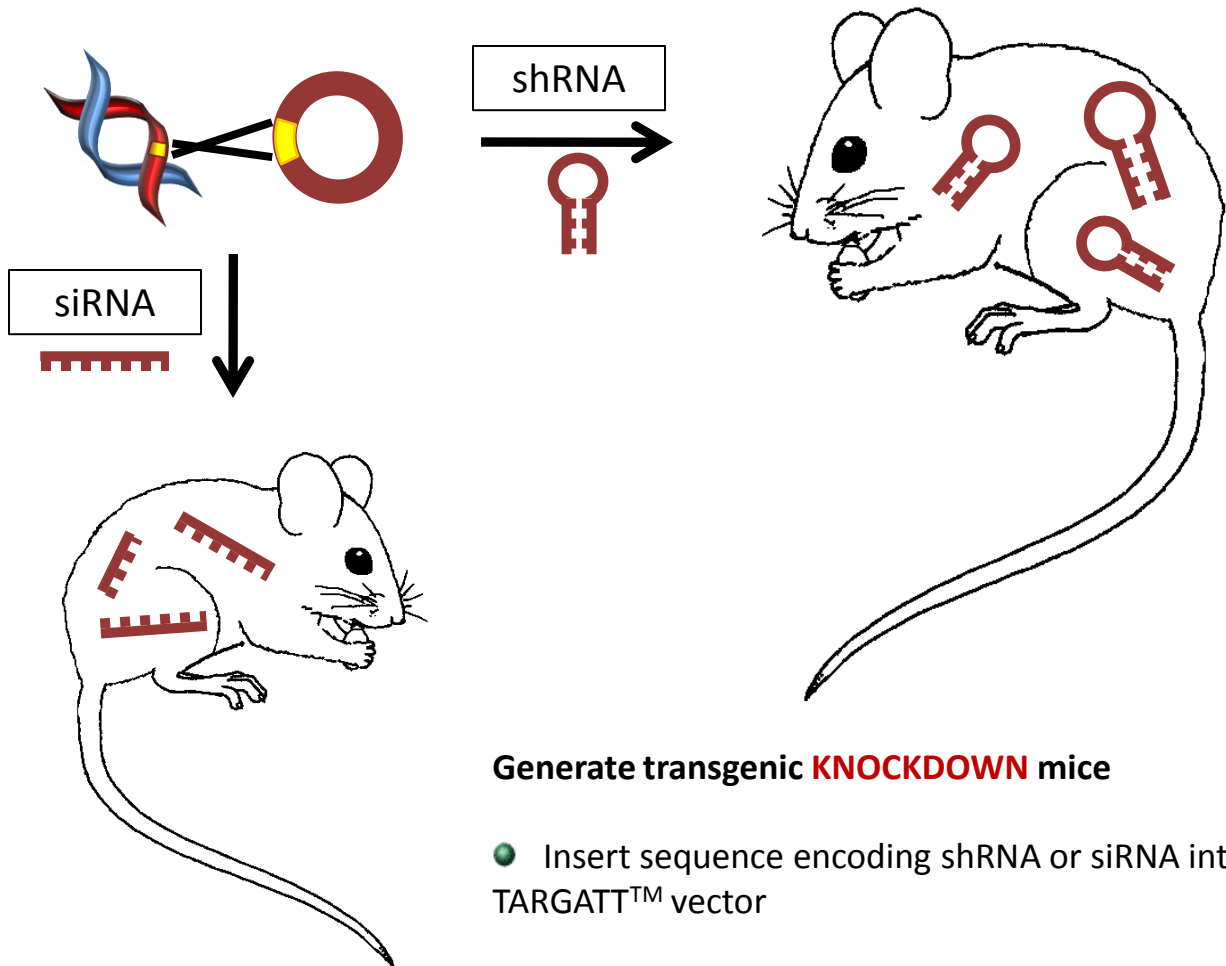
Overexpression of a Reporter Gene



Generate transgenic **REPORTER** mice

- Insert reporter gene into TARGATT™ vector
 - GFP
 - Luciferase
 - lacZ
 - ...
- Microinject reporter vector into TARGATT™ embryos
- Pups will express reporter gene

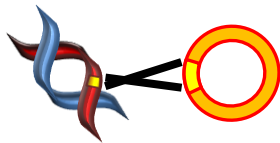
Gene Knockdown by shRNA/siRNA



Generate transgenic **KNOCKDOWN** mice

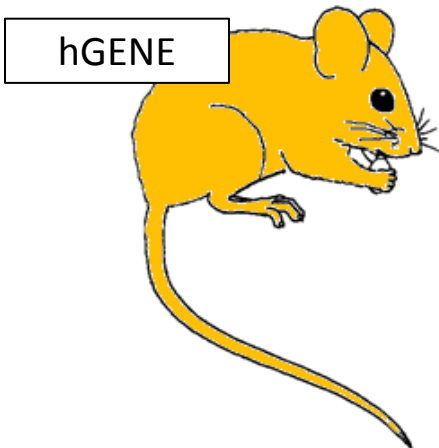
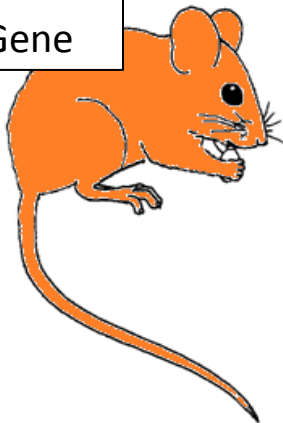
- Insert sequence encoding shRNA or siRNA into TARGATT™ vector
- Microinject vector into TARGATT™ embryos
- Pups will express silencing construct

Humanized Mouse Models



Human
Gene of
Interest

hGENE
mGene



Generate transgenic **HUMANIZED** mice

- Insert human gene of interest into TARGATT™ vector
- Microinject vector into TARGATT™ embryos

- Cross TARGATT™ mouse with knockout mouse for gene of interest

- Progeny has mouse gene replaced with human gene