Creating A Transgenic Mouse Model Over Expressing A Gene.

TRADITIONAL ROUTE

6-12 MONTHS

- Founder mice (F0) generation
- Screening for transgene integration by genotyping
- Transfer injected fertilized eggs back into mice
- Inject fertilized egg with plasmid
- Harvest the fertilized egg of female mice
- Mating of Mice
- Plasmid design and gene preparation

AAV ROUTE

2-6 WEEKS

- Design, Clone and Prepare Plasmid
- AVV Packaging & Purification
- Single Injection

How AAV
can speed up your
research and development?

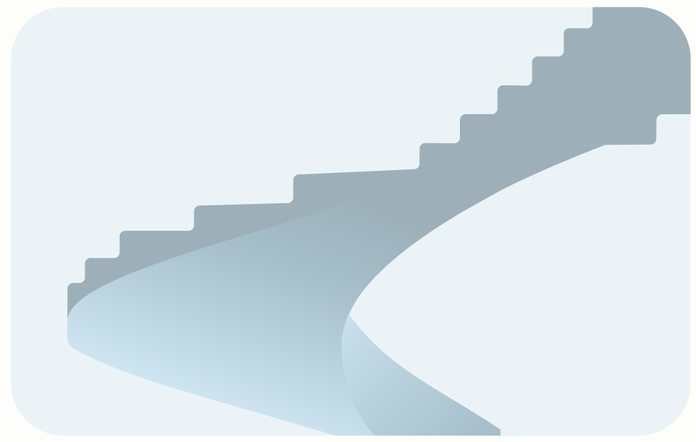
We Help You Accelerate Your Research From Discovery To Clinic.

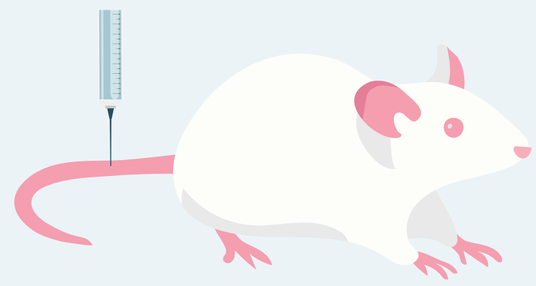
Case Study

A clinical-stage biotech company needed to develop a small molecule-based therapy to treat kidney disease. Traditionally, this would require creating transgenic mice expressing the human gene of their target, a process that takes 6 to 12 months. Instead, the company chose to use AAV to deliver the human gene into mice directly as the replacement for transgenic mouse model.

Vector Biolabs helped by constructing and producing AAV stocks, which were injected directly into the mice. This allowed the company to screen their small molecule library in vivo within weeks, saving 6 to 12 months of development time.

The best candidate from the screen is now in Phase 1 clinical trials.





Traditional Approach

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Breed Mice and Genotyping	■	■	■	■	■	■	■	■	■	■	■	■				
Screening/Candidate Validation and Toxicology													■	■	■	
Clinical Candidate Identified/Pre-IND Data Confirmed																■

Novel approach using Vector Biolabs® AAV

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Induction of Disease State with AAV		■	■													
Screening/Candidate Validation and Toxicology			■	■	■	■										
Clinical Candidate Identified/Pre-IND Data Confirmed							■	■								

85%
Reduction in study time

Estimated to be 25k+ in savings per study

Sustainability Of Disease Models

Tailored Specificity & Reduced off Target Expression