

# Applications of Animal Models

The model animal has played an important role in the history of life sciences and medicine, with a wide range of application in biology, medicine, molecular biology, molecular genetics, immunology and other fields.

Different animal models can be used as economical and effective research tools to conduct in-depth and reliable experiments for different research purposes.

- [\*\*Study of gene functions\*\*](#)

To study the in vivo function of a gene or its encoded protein and identify its role within cellular processes.

- [\*\*Research on human diseases\*\*](#)

To mimic human diseases for the research on pathogenesis, development processes, related gene-regulation processes, therapeutic treatments, etc.

- [\*\*Drug screening\*\*](#)

To allow focused and high-throughput in vivo drug screening for more valuable pre-clinical research and accelerate drug development.

- [\*\*Gene tracking\*\*](#)

To visualize the in vivo expression of genes or proteins to uncover cell fate and genetic lineage.

Shanghai Model Organisms offers customization and services for a variety of model organisms to meet different research purposes.

