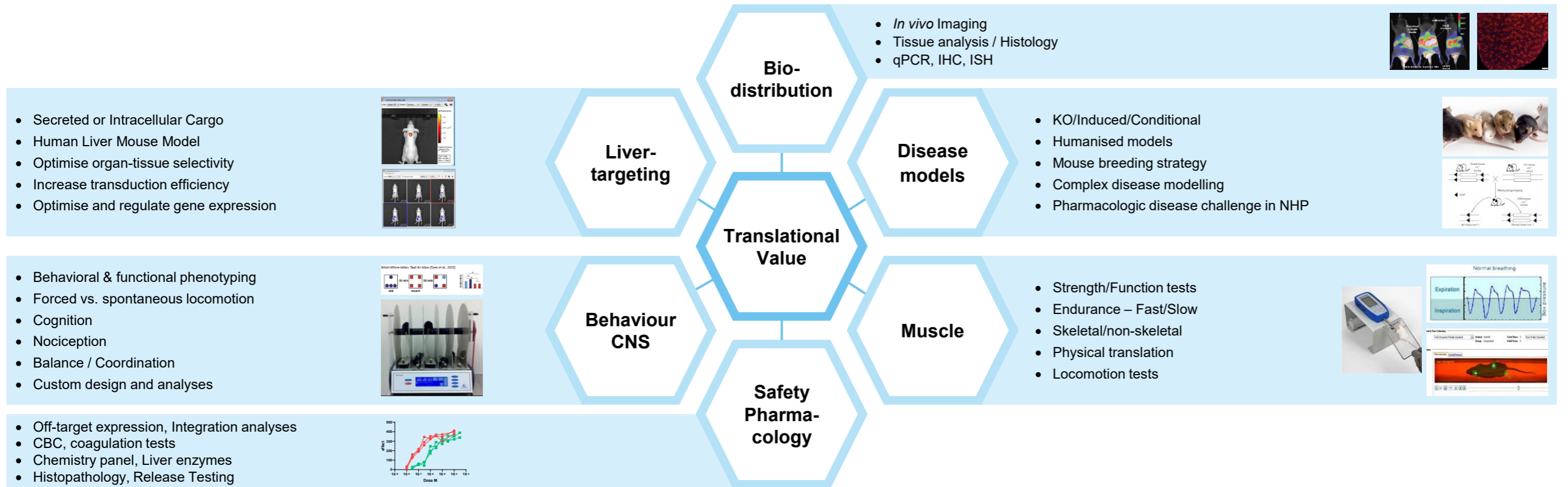

Evotec Gene Therapy

*Adding value to our partners' research –
in vivo overview*

Translational Sciences

Complex and customisable *in vivo* models focused on patient predictability



Additional specialist resources across the world-wide Evotec organisation are readily available to expand into all other preclinical sciences

In vivo sciences and core capabilities

On-site animal facility ensures fast and streamlined end to end workflows

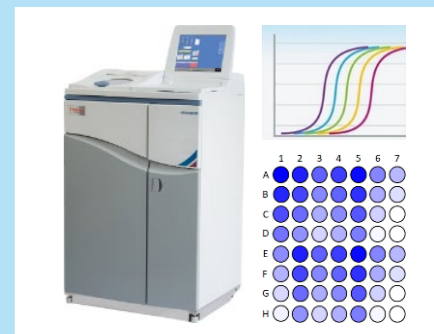
State of the art animal facility & substantial capacity

- ~400 m², 5,000 rodents (IVC housed), AAALAC
- Disease models (e.g. hematology, CNS, muscle)
- Humanised models (hu-liver mice, hu sickle-cell disease, and other customized models)
- In-life data collection – function, behaviour, cognition, bioimaging
- Studies in large animal species within Evotec



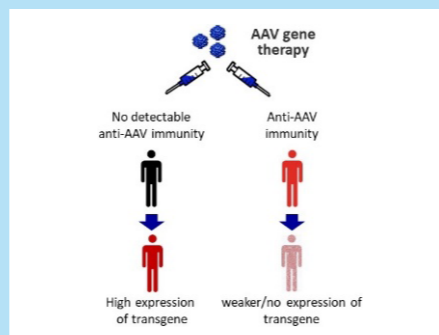
Examination of tissues: Transduction

- Isolation and purification of RNA/DNA from transduced animal organs
- Vector copy number determination
- Organ-specific gene expression analysis by duplex real-time PCR
- Analysis of expressed protein (quantitative or functional assays)



Immunogenicity – expertise & analytics

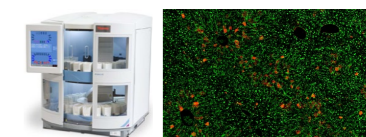
- Immunosuppressive regimens
- *In silico* immunogenicity assessments
- Anti-AAV binding and neutralizing antibodies
- Cellular immune response: flow cytometry, ELISPOT



Tissue Processing and Histology

- Cryotomy, embedding, sectioning, auto-staining
- Evaluation of therapeutic amelioration of pathological conditions
- Confirmation of transgene expression by microscopy
- RNA in situ hybridization assay

Biodistribution of human trans-gene product in mouse liver



Integrated workflows extend to all centers of expertise within the Evotec network.

Predictive Toxicology for Gene Therapy

Evotec strives towards implementing AAV safety/tox signatures in gene therapy development

