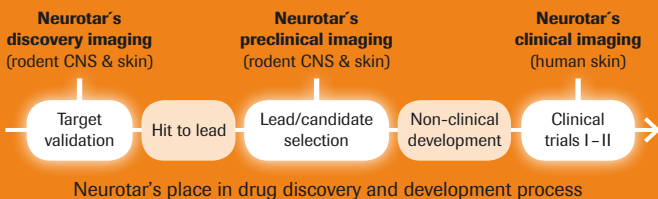




neurotar

DISCOVER DETAILS. *IN VIVO*

Where we come in to help you



We can work with you on:

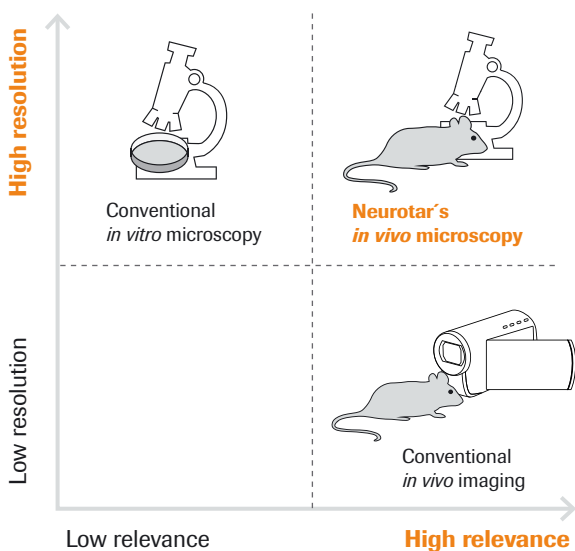
- Neurodegeneration
- Stroke
- Migraine
- Skin disorders
- Brain or skin tumors
- CNS effects of any drug

Your benefits

- **Information rich results** by detailed visualization and simultaneous *in vivo* measurement of multiple parameters
- **Increased predictive power** of preclinical disease models
- **Accelerated target validation** by direct application (e.g., topical injection) of active substances to the imaging site
- **Shortened lead optimization time**
- Reduced number of lab animals used in testing (**RRR policy compliance**)
- Immediate access to **game-changing technology** without investing in costly equipment and trained personnel

Neurotar helps you make better-informed decisions earlier in the preclinical phase. This increases success rate in clinical trials and saves your time and money.

Neurotar's unique combination: High resolution + High relevance



Neurotar's imaging services

in vivo two-photon microscopy

= High resolution + High relevance

Examples of our services

- **Vasculature and Blood Flow**

Detailed 4D (3D + Time) measurement of meningeal and cortical vessels, including arterioles and venules, and flow rate quantification

- **Blood Brain Barrier Integrity**

Measurement of BBB permeability by systemic injection of several dextran dyes of different molecular weight and multicolour imaging

- **Mitochondrial Signalling**

Imaging of shape, motility and membrane potential of mitochondria in stroke, cancer or neurodegeneration and in the course of drug action

- **Intracellular Calcium Signalling**

Calcium imaging of neurons and astrocytes as a sensitive functional readout of brain circuits in the course of, e.g., neurodegeneration

- **Single Cell Tracking**

Longitudinal monitoring of individual cells (e.g., immune, cancer or stem cells), quantification of their velocities and trajectories

- **Neuronal and Glial Morphology**

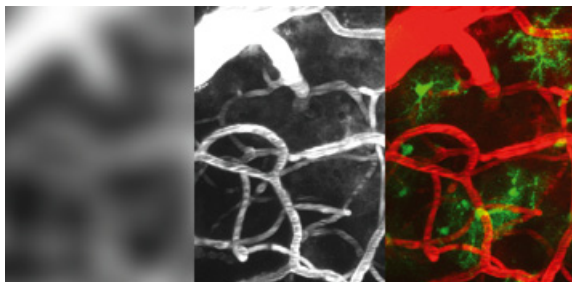
4D monitoring of disease- or drug-induced changes in neuronal dendritic spines and fine processes of astrocytes and microglia

- **Skin Layers and Angiogenesis**

Quantitative longitudinal analysis of intact skin and dermal vasculature in pathology or during transdermal drug delivery

Imaging services are implemented in animal models available in house or provided by our Clients. Services can be synergistically combined. Tell us what you need and we will work with you to make it happen!

Unique advantages of Neurotar's *in vivo* two-photon microscopy



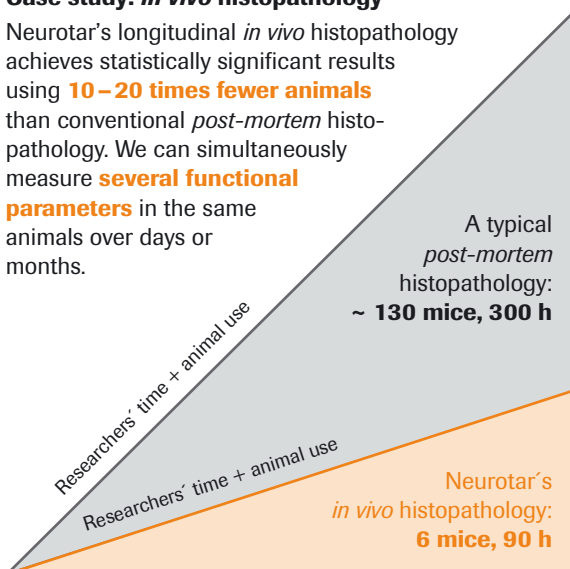
Conventional
low-resolution
in vivo imaging

Neurotar's
high-resolution
in vivo imaging

Neurotar's
multi-parameter
longitudinal tests

Case study: *in vivo* histopathology

Neurotar's longitudinal *in vivo* histopathology achieves statistically significant results using **10–20 times fewer animals** than conventional *post-mortem* histopathology. We can simultaneously measure **several functional parameters** in the same animals over days or months.



Neurotar's *in vivo* microscopy

High resolution
relevance

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