STRIA.TECH
Journal Club Series

In our Journal Club Series OptoDrum users present their recent publications and data, including a live Q&A at the end.

Developing Retinal Gene Therapy for Zellweger Spectrum Disorder (ZSD)
Catherine Argyriou, Ph.D.
McGill University

In Vivo Modeling of Immune-mediated Optic Neuropathies
Oliver W. Gramlich, Ph.D.
The University of Iowa

Endothelial Caspase-9 Mediates Inflammatory & Vision Function Changes in Retinal Vascular Injury
Crystal Colón Ortiz, Ph.D.
Columbia University Medical Center

All Journal Clubs

www.stria.tech/journalclub/

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OptoDrum

Determine Visual Performance

Measuring Vision in Freely Moving Animals

- Visual Acuity
- Contrast Sensitivity

STRIA.TECH
Your Experts for Neuroscience Testing Tools

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Advantages

- **Enables fast, objective, reliable data**
  Fully automated procedure including animal detection, adjustment of the stimulus pattern and analysis
- **Easy to use**
  Intuitive software
  Simple conduct of experiments
  Easy to handle the animal and clean the device
- **Quick to start**
  Reflex based; no training necessary for the animal
- **Expert knowledge**
  Personal support by the developers

Applications

For a wide range of pre-clinical research applications:

Ophthalmology	Characterization of vision
Toxicology	Screening for vision defects
Pharmacology	Efficacy and safety testing
Phenotyping	New genetic lines
Disease models	Track disease progression

Accessories

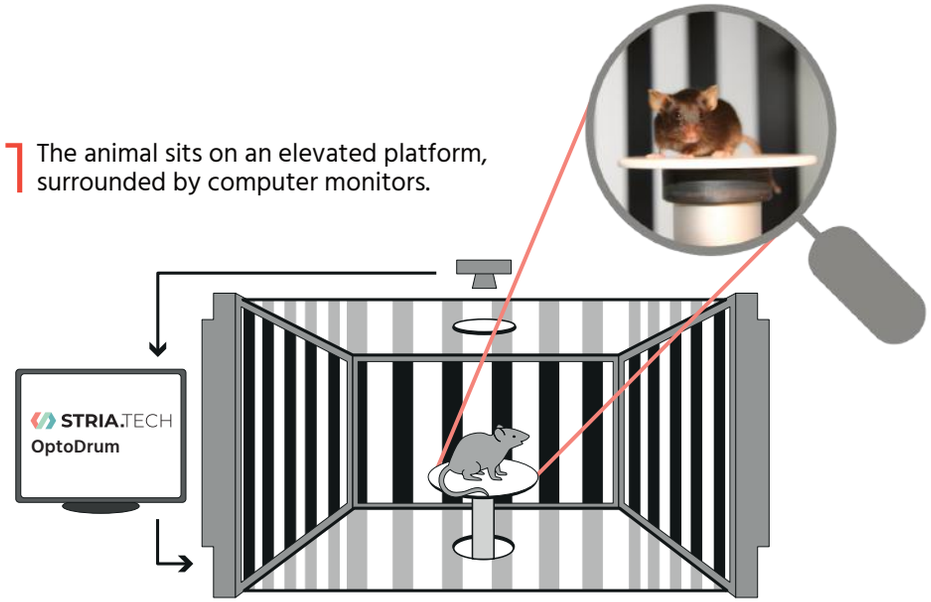
ScotopicKit for testing night vision

Set of filter foils for stepwise reducing absolute light levels inside the OptoDrum to near darkness.

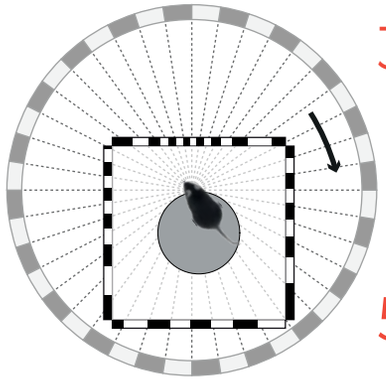
How it works

The OptoDrum determines the visual acuity and contrast sensitivity of your research animals based on the optomotor reflex.

1 The animal sits on an elevated platform, surrounded by computer monitors.



2 The stripe pattern slowly rotates around the animal, triggering the optomotor reflex.



3 A camera observes the animal's behavior from above.

4 The head movement is automatically detected and analyzed by the OptoDrum software.

5 The projected pattern is continuously and automatically adjusted to find the visual threshold.