

Sophisticated, multichannel, multipurpose sample collection and drug delivery system designed for freely moving laboratory animals

The Peira neuroscience platform allows for the simultaneous use of several sampling and/or infusion devices, which are fixed to a rigid support frame.

The Peira neuroscience platform is used primarily in neuroscience, physiology, pharmacology, and basic biology research with a special focus on EEG.

Enhanced Sample Collection: It allows for the simultaneous collection of various samples such as blood, cerebrospinal fluid (CSF), and interstitial fluid (ISF) from freely moving animals.

Precise Drug Delivery: The platform facilitates accurate drug administration at specific times, which is crucial for studying the effects of drugs on physiological and neurological processes.

Comprehensive Monitoring: Multiple probes, electrodes, and blood lines can be used simultaneously, enabling comprehensive monitoring of several physiological systems at once.

Reduced Animal Stress: By eliminating the need for fluid or electrical swivels, the platform reduces stress on the animals, leading to more reliable and accurate measurements.

Improved Data Quality: The reduction in physical stress and the ability to monitor multiple systems simultaneously contribute to higher quality and more reliable data.



Features

- **Advanced EEG wire management:**
 - **Swivels** : mechanical or electrical systems are used in EEG setups to prevent cable torsion, reduce stress on the subject, and maintain signal integrity during continuous and unrestricted movement.
 - **Rotating platform:** The animal's home cage is placed on a powered turntable that rotates in the opposite direction of the animal's movement, ensuring minimal torque or weight on the tether. This setup allows for multiple probes, electrodes, and blood lines to be used simultaneously, facilitating comprehensive physiological monitoring. The platform eliminates the need for fluid or electrical swivels, reducing stress on the animals and improving the reliability of measurements.
- **Simultaneous Monitoring:** Multiple probes, electrodes, and blood lines can be used simultaneously, enabling comprehensive monitoring of several physiological systems at once.