

Delta Phenomics, your partner for animal behavior research

Delta Phenomics can help you to enhance the quality and throughput of your animal behavior studies. We are experts in the design, execution and analysis of behavioral experiments covering a wide range of test paradigms, from short-lasting standard tests to continuous longitudinal observation in instrumented home cage systems. Our qualified consultants and trainers have many years of practical experience in animal behavior research and the use of advanced methods and tools. Whether it concerns behavioral phenotyping of mutants, CNS drug discovery or safety pharmacology, our professionals are ready to assist you in your research.

Consultancy

Installation of test equipment and software

Our engineers can install behavioral test systems, computers and data collection and analysis software in your laboratory. Systems range from single-cage PhenoTyper® setups to multi-room behavioral screening facilities with large numbers of connected test cages and computers.

Design of experiments and test protocols

Configuring advanced test equipment to the subtle requirements of your test paradigm can be a challenge. Our consultants are experts in the design of experiments and programming of EthoVision® software, PhenoTyper hardware, and other tools. They will translate your research plan into a working measurement and analysis solution.

Data analysis and statistics

Automated data collection systems, such as high-throughput PhenoTyper systems, can generate massive amounts of data, especially when running continuously for extended periods of time. A multi-factorial analysis, including spatial zones and time bins, will easily yield thousands of behavioral parameters. Our data analysts can reduce this huge volume of data to meaningful information.

Animal welfare issues

Delta Phenomics staff scientists are experts in laboratory animal science and animal welfare. We can provide advice on how to design animal housing (environmental enrichment, social aspects) and behavioral experiments in such a way as to maximize animal welfare, to obtain high-quality data and comply with international animal welfare standards and legislation.

Strategic advice on animal behavior research

Our scientific director, Prof.dr. Berry M. Spruijt, advises pharmaceutical companies and research institutes on strategic issues related to animal behavior research. Berry Spruijt has a background in behavioral neuroscience, ethology and psychology. In the past 30 years he has published more than 130 papers in the field of cognition, brain damage and recovery, neuropeptides and grooming; biology of emotional states related to social behavior, play, reward and stress; and automation of the observation and analysis of animal behavior.



Training

Introduction to behavioral test methods, techniques and tools

During this 3-day course you will learn the background and basics of different behavioral tests, when to use which test, and the pros and cons of standard behavioral tests. Besides theory, the course includes hands-on training: you will learn

how design a real experiment using rats or mice and to analyze data output of your test. The results of the practical work are presented and discussed with your fellow students and the course instructor. This course is organized periodically at our facility in Utrecht, The Netherlands, including hands-on exercises. It can also be organized at your location, with exercises based on prerecorded video material.

Video tracking with EthoVision

This 1-day course will help you to get started using EthoVision XT. We will train you how to design your experiment with EthoVision XT, make arenas and zones, run a trial, visualize and analyze your data. The course will use examples from the most commonly used mazes and tests, and if you notify your trainer in advance we can make sure that the tests you carry out will be specifically dealt with.

Behavioral observation and analysis with The Observer

This 1-day course will help you to get started using The Observer® XT for your research or tests. We train you how to create a configuration for your own work, observe behavior with The Observer XT, and analyze your observational data. The training will consist of two parts: general background and theory in the morning, and a hands-on session in the afternoon. There will be plenty of opportunity for questions during the entire session, and you are more than welcome to bring your own video material to work on.

PhenoTyper, basic training

In this 2-day course you will learn the theoretical foundation of the PhenoTyper and how to design and conduct behavioral experiments with the system. Course topics:

- Setting up the PhenoTyper system
- Using the PhenoTyper with EthoVision video tracking software
- Basic control of the PhenoTyper stimuli with EthoVision hardware and trial control
- Advantages of long-term studies in the PhenoTyper compared with traditional behavioral test batteries
- Hands-on exercises

PhenoTyper, advanced training

This 2-day course is intended for owners of PhenoTyper systems who want to get more out their system. Course topics:

- Designing test protocols
- Programming automatic trial control scripts in EthoVision XT
- Interfacing with hardware devices (stimuli)
- Interfacing with sensors
- Data management, filtering and analysis
- Designing phenogram reports
- Hands-on exercises

CatWalk™, basic training

In the 1-day course you will learn how to design and execute gait analysis and pain assessment experiments with the CatWalk system. Course topics:

- Setting up an experiment
- Carrying out data acquisition
- Manual and automatic classification of runs
- Analysis of data
- Applications of CatWalk and interpretation of CatWalk data

Personal training: lab secondment

Delta Phenomics offers secondments to scientists, students and technicians. This is an excellent way to learn specific experimental methods and techniques. During a secondment, you will be coached and supervised by one of our staff scientists. Duration can vary from a single day to multiple weeks, depending on the skills to be acquired.

References

Delta Phenomics has provided consultancy and test services to renowned corporations, governmental agencies and academic institutions. References are available upon request.