



SABLE
SYSTEMS
INTERNATIONAL



Respirometry Course – Las Vegas, Nevada

High-Throughput Metabolic and Behavioral Phenotyping

October 6-9, 2020

The respirometry course – held in Las Vegas, NV – teaches participants how to use indirect calorimetry and behavioral analysis in metabolic screening. We will apply techniques for measuring real-time O₂ consumption, CO₂ production, and water loss for laboratory rodents. Measurement systems also include food & water intake, body mass monitoring, wheel running, and voluntary activity. Data analysis is a significant focus of this course – so feel free to bring your own data sets.

Hands On: The course leads participants through all steps of setting up apparatus, calibrating and troubleshooting, acquiring data, and analyzing data using Promethion metabolic systems

Cost: \$2,976 per participant. Included in this fee are all laboratory costs, course materials, lunches, one-on-one data analysis review and discussion with our in-house experts, a signed copy of Dr. Lighton's book, and many extras.

Course Materials: All coursework materials are provided including copies of all presentations.

Instructors: The course is taught by Dr. John Lighton and the Sable Systems scientific team. Dr. Lighton – the president of Sable Systems – is a world expert on respirometry with over 100 peer-reviewed publications on respirometry in scientific literature. Dr. Lighton is also the author of the preeminent textbook on respirometry: "Measuring Metabolic Rates: A Manual for Scientists: 2nd Edition (2019)", available from Oxford University Press.

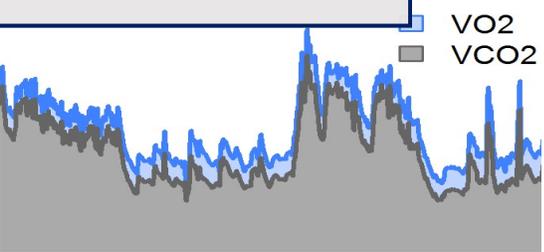
For questions, more information, or to register, contact Sable Systems by email to support@sablesys.com or by phone at 702-269-4445 in the US or +49 30 53054 1002 in the EU.



Metabolic and Behavioral Phenotyping Course – Schedule

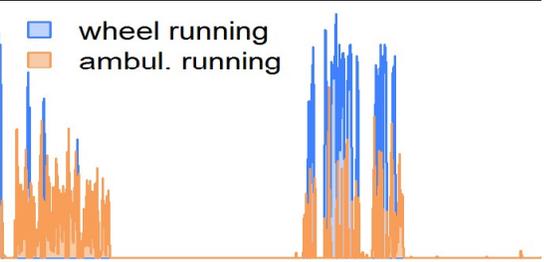
Day 1:

- **Welcome and Orientation:**
Introduction to workspace, CGF, and GA/FR systems.
- **Classroom Lectures:**
Theory of respirometry, Fundamentals of gas analysis, and Instrumentation for CGF and GA/FR Systems.
- **Hands-on Applications:**
System calibration and actual data collection begins.



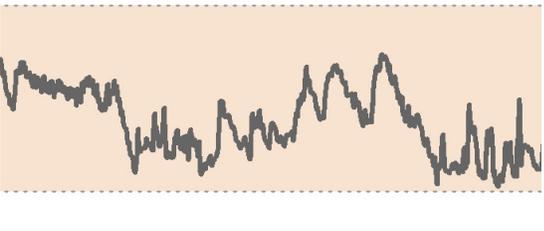
Day 2:

- **Additional Lectures:**
Sensor function and theory and the fundamentals of data analysis using Expedata.
- **Supervised Data Analysis**
Analyzing real-time data using IM-3 functionality, introduction to MacroInterpreter and One-Click Macros.
- **Hands-on Applications:**
Trouble-shooting and continued data collection.



Day 3:

- **Additional Lectures:**
Integrating behavior and energy expenditure.
- **Advanced Data Analysis**
Analyze your own laboratory datasets.
- **New Techniques and Approaches:**
Treadmill/Exercise, Stable isotope analysis, Group ingestive behavior, RFID/Telemetry, Thermal cabinets, and more.



Day 4:

- **Advanced Data Analysis**
Creating custom macros, heatmaps, and programs.
- **Future Considerations**
Group discussion on what the data tells us – and what it doesn't.
- **Wrap-Up**

