**Workshop whole room indirect calorimetry-preliminary program**

Place: University of Oslo, Domus Medica, Department of Nutrition, room 3100

**Date: 25.-26. November 2021**

Organizing committee: Christine Henriksen, Hege Berg Henriksen, Thomas Olsen, Anja Bosy-Westphal, and Stine M. Ulven

**Day 1**

*Coffee and fruits*

09:00-09:15 Stine Ulven, University of Oslo (Department of Nutrition): Welcome and aim of the workshop

09:15-10:00 Manfred Müller, Kiel University (Institute of Nutrition): [The role of energy expenditure in body weight homeostasis in humans.](https://pubmed.ncbi.nlm.nih.gov/30026913/)

**10:00-11:30 Short presentations 20 min-ongoing research using WRIC**

Anja Bosy-Westphal, Kiel University (Institute of Nutrition): Validation of a metabolic chamber and results from the ketone study

Thomas Olsen, University of Oslo (Department of Nutrition): Effect of sulfur amino acid restriction on resting energy expenditure-STAY trial

Dr. Sascha Heinitz, University of Leipzig, Helmholtz Institute Munich: Establishing whole-room indirect calorimetry in Leipzig

Russell Rising, Columbia University Medical Center, Department of Medicine, Columbia University, New York: Short duration protocols for resting metabolic rate and exercise metabolic measurements utilizing whole room indirect calorimetry

Discussions-sharing experiences

*Lunch 12:00-13:00*

**13:00-16:00: Workshop Russell Rising, D & S Consulting Services Inc. and Andreas Moelich, SABLE systems – Respirometry Theory and System Familiarization**

Define Respirometry & some of the functional requirements of all systems

Theoretical introduction on the Promethion architecture and specifics of the Oslo system

Practical introduction on the system. Perform system calibration. Propane burn.

*Coffee break 15:30-16:00*

**16:00-17:30 Workshop Russell Rising, D & S Consulting Services Inc. and Andreas Moelich, SABLE systems- Analyzers and Sensors-theory and System Familiarization**

Analyzers & Sensors Theory

Baselining (incl. Background Baselining)

Water vapor and corrections

System Validation ‐ theory

Discussions-sharing experiences

**Day 2**

**09:00-13:00 Workshop Andreas Moelich, SABLE systems and Franziska Hägele, Kiel University (Institute of Nutrition) - Data analysis**

Respirometry equations

Introduction to data analysis with ExpeData

Data analysis with ExpeData II – Introduction to ExpeData Macros

System Validation ‐ practice

Retrieve and analyze data from Propane burn

Thomas Olsen: development of script in R/app

*Lunch 13:00-14:00*

**14:00-16:00 Workshop Andreas Moelich, SABLE systems - Analysis and interpretation of Room-cal data**

Intro to Universal Room-cal Macro collection

Analysis and interpretation of Room‐cal data