Materials for self-study

O2k-Basic

Online material	Material type
Part 1.1: OroboPOS service and O2k instrumental setup	
O2k-Manual: O2k-FluoRespirometer O2k-Manual: POS Service O2k-Videosupport: OroboPOS O2k-Videosupport: Cathode cleaning O2k-Videosupport: Anode cleaning O2k-Videosupport: Membrane mounting O2k-Videosupport: Start DatLab 7 O2k-Videosupport: Insert OroboPOS O2k-Videosupport: Insert O2k Chamber O2k-Videosupport: O2k Chamber volume calibration	
Part 1.2: DatLab	
MitoPedia: DatLab DL-Protocols	
Part 1.3: O₂ calibration and instrumental background	
Gnaiger 2008 POS SOP: O2k-cleaning_and_ISS SOP: O2-calibration O2k-Videosupport: QC1: POS calibration * SOP: O2 background	

Online material	Material type
Part 2.1: Biological samples and experimental design	

Pathway control and coupling control of mitochondrial respiration:

Mitochondrial pathways and respiratory control. An introduction to OXPHOS analysis

BEC 2020.1 Mitochondrial Physiology

Sample types, mitochondrial preparations and sample addition:

Sample

Mitochondrial preparations

MiPNet17.03 Shredder vs Fibres

O2k-Videosupport: Shredder tissue homogenate

O2k-Videosupport: Fiber permeabilization

Cell count and normalization in HRR

O2k-Videosupport: Addition of biological sample to the respirometer chamber *

SUIT protocols, SUITbrowser, DL-Protocols:

MitoPedia: SUIT

Oroboros SUITbrowser

O2k-Videosupport: How to find a DL-Protocol (DLP)

O2k-Videosupport: Export DL-Protocol User (*.DLPU)

| **Part 2.2: Biological experiment and data analysis** | |

Oxygen_flux_analysis

O2k-Videosupport: O$_2$ flux analysis with DatLab 7.4

O2k-Advanced O2k-Applications: Simultaneous determination of O_2 and H_2O_2 fluxes	
Online material	**Material type**
Amplex UltraRed O2k-Videosupport: Smart Fluo-Sensor assembly * O2k-Videosupport: Exchanging a filter set of the smart-fluo sensor * Calibration with H_2O_2 H_2O_2 flux analysis O2k-Videosupport: H_2O_2 flux analysis with DatLab 7.4 *	

* exclusive materials and links will be sent upon registration

Description

Sessions and workflow

The **materials for self-study** section above, with the names and links to materials, are recommended to be studied before the respective training sessions of the Virtual O2k-Workshop.
During the Virtual O2k-Workshop access will be given to exclusive online material along with the O2k-Manual and O2k-Videosupport, which are always available on the website. Links to exclusive videos will be provided per email, sent exclusively to participants after their registration. A list with the names of the exclusive videos can be found here:
https://wiki.oroboros.at/index.php/O2k-Videosupport#Exclusive_material_for_O2k-Workshop

The virtual coaching offers the possibility to choose sessions from different modules:

> » O2k-Basic and O2k-Advanced.

Live sessions and recommendation of hour allocation

Once the prepared material is studied by the participants, they can book up to 10 hours for individual **virtual coaching** with a tutor.

To make use of the **virtual coaching** hours, please contact us: marija.beno@oroboros.at

» SUIT protocol selection
A form will be sent to participants before the start of the Virtual O2k-Workshop, to address specific research interests, samples available, selected SUIT protocols, for further discussion with the Oroboros tutors.

Duration of the virtual coaching sessions

The timetable in the [program](#) online, shows an approximate estimation of how much time will be needed for each specific session. This overview is intended to help participants to plan their available 10 hours efficiently. The minimum time per session is 1 hour. More than one topic can be covered in a single session.
The duration is estimated for participants who still do not have experience with the O2k, sessions might be faster for experienced O2k users.

» Until when can the hours be used
The hours for the **virtual coaching** sessions can be used any time within the O2k warranty period (2 years from delivery). The virtual coaching sessions will take place on the dates to be confirmed both by the participants and tutors.

More details?

Gnaiger E (2020) Mitochondrial pathways and respiratory control. An introduction to OXPHOS analysis. 5th ed. Mitochondr Physiol Network 24.05. Oroboros MiPNet Publications, Innsbruck:96 pp. »
http://wiki.oroboros.at/index.php/Gnaiger_2014_MitoPathways
O2k-Manual – http://wiki.oroboros.at/index.php/O2k-Manual
O2k-Procedures – http://wiki.oroboros.at/index.php/O2k-Procedures
>3,800 O2k-Publications – http://wiki.oroboros.at/index.php/O2k-Publications:_Topics