



## Course on High-Resolution Respirometry

### IOC68 – Feedback

2012-04-20

### O2k-Workshop: O2k-Basic and TPP-Basic.

Schröcken, Vorarlberg, Austria April 11 – 16, 2012.

We thank the participants for taking the time to fill in the feedback forms and answer our questions. A short summary is provided below.

#### Questions and numerical answers:

##### Rate from 1 (low level) to 5 (high level):

	<b>all participants</b> (N=18; mean±SD)
Were your interests covered in the workshop?	<b>4.2 ± 0.6</b>
Presentation of lectures in terms of content:	<b>4.2 ± 0.4</b>
Presentation of lectures in terms of language:	<b>4.7 ± 0.6</b>
Quality of tutoring	<b>4.5 ± 0.6</b>
Overall rating of the workshop	<b>4.7 ± 0.5</b>

##### Balance from 1 (not enough) to 5 (too much); 3 would be optimum:

	<b>all participants</b> (N=18; mean±SD)
Balance between practical "hands-on" work and "theoretical" explanations:	<b>3.4 ± 0.5</b>
Level of tutoring during the "hands-on" work:	<b>3.2 ± 0.7</b>
Intensity of the O2k-Workshop:	<b>3.0 ± 0.7</b>

#### Questions and answers:

##### Which topics should be covered more intensively?

- *I am not sure because I am new to this field in the level of detail covered in this workshop.*
- *Experimental design; basics of oxygraphy for beginners (1 session should be enough).*
- *Maybe try out more experimental protocols and practise to recognize states.*
- *Everything, if there was the time.... Still, very great!!*
- *While I know that the purpose of the workshop is mainly the O2k, some hands-on and tips for preparation of tissue / chemicals would be great.*
- *How coupling influences respiration; more scientific material.*
- *Protocols for studying in practice.*
- *More theoretical lectures would be nice and more hands-on.*
- *Flux control ratios were a bit confusing.*
- *I think with the introduction of the fluorescence module there is a lot of interest on ROS production and membrane potential. A more thorough discussion*

- *More explanations about the layout and more details about cleaning procedures.*
- *Mitochondrial pathways.*
- *The use of different protocols and the advantages of different sample types.*

**Please list some points of the O2k-Workshop that may be improved:**

- *Less people in the hands on - only 3 to 4.*
- *The weather and sight was covered most of the time :-(; sometimes a bit hard to follow everything with all the improvisations of Erich :-).*
- *Good balance between Science, Culture and Entertainment! Excellent food!*
- *In regards to preparation, I would prefer to have some summarized material, although I think chapter 3 (Pesta 2012) was pretty good.*
- *Do not use tutors that do not speak proper English! Fluorescence module inclusion was too confusing, especially for beginners.*
- *The demo experiments are very useful but I would have liked to do hands-on experiments simultaneous to them (if possible?).*
- *It was great; there were interest challenges when participants are from numerous backgrounds and levels to expertise.*
- *More practical work and hands-on.*
- *O2k basic: too much time spent on fluorometry and TPP introduction.*
- *Provide PDFs of lectures on flash drive and provide hard copy in notebook of demo traces to use when discussion states.*
- *More protocol setup for different types of samples.*
- *I felt it was extremely well organized and provided a great balance, so I really have no comments here.*

**Do you have any suggestions how we could improve the O2k-Workshop?**

- *I think it was excellent! I would have liked a course diploma :).*
- *Maintain the high standard! Very knowledgeable in structure, very approachable; excellent!*
- *Maybe separate into groups of people without experience vs. users with some experience.*
- *Longer?*
- *I really enjoyed the balance of work and play, the BEST I have ever been to. Great job with the time allotted, I am much more confident with starting to use the O2k.*
- *Separate groups (hands-on) for absolute beginners (no experience) and some experience – do level groups*
- *More practical work for beginners; more time for practical work with DatLab software.*
- *A presentation on the basics of substrates and inhibitors would be helpful.*
- *Use standardized language of abbreviations.*
- *Explain how to measure each state / complex in an appropriate order with inhibitors.*
- *Perhaps a brief overview / slide on TCA cycle and ETS pathway showing where substrates enter as well as sites of action of inhibitors would help to set states for novices to understand / interpret experiments.*
- *I preferred not to have late night discussions - they could be planned before dinner and having dinner later; encouraging participants to present talks in order to get more information respect to their research areas would be nice; cover more trouble shooting points (in more details).*

- *Add a hands-on full protocol with calibration till protocol ends; do hands-on interest groups so that participants get divided into groups on the type of tissue they use.*

#### **DatLab Software: Features you want to see / Problems you observed:**

- *Typing in time range in scaling window is a bit tricky.*
- *Maybe more things could be automated, with respect to excel-templates and manual copy eliciting. I see possibilities of making mistakes when copying.*
- *It is already a good software.*
- *I think that DatLab is a great software package - would be nice to have the opportunity to use it on a Mac.*
- *Too early for me to comment as I have yet to use it!*
- *Need to become much more familiar before providing any intelligent input!*
- *Some practical problems at the beginning of work.*
- *Still too early, need more hands-on.*
- *So far so good but I have not used enough to comment here.*
- *Everything is o.k.*

#### **The O2k-System: Features you want to see / Problems you observed:**

- *I would like to see a flow chart / check list at different types of experiments. Maybe there are some on Bioblast already?!*
- *Multi-channel pumps (e.g. up to 3 pumps); it is a good and robust system.*
- *There are many things I want to practice myself. At the workshop things made sense.*
- *None that I know of yet!*
- *Fluorescence module seemed to need more trouble shooting....*
- *Problem of inhibitor contamination of the chamber (oligomycin) even with long cleaning procedures (15 min ethanol and 15 min liver in buffer).*

### **General feedback and suggestions to improve the O2k-Workshop from the "Panel discussion" as well as the open discussion of all participants**

#### **Panel discussion**

- **Palladino Michael J. (O2k basic)**
  - *Deep congratulation to tutors - stayed throughout the breaks, were always helpful and hard working tutors.*
  - *Taught all to use the machine properly - otherwise you will do lots of mistakes.*
- **Li Ying (O2k basic)**
  - *Happy to learn so many new skills.*
  - *Improve science to help each other.*
  - *It was more than a workshop, a symposium, a conference - really enjoyed it.*
  - *It was more than a workshop, a symposium, a conference - really enjoyed it.*

- **Fontana-Ayoub Mona (O2k basic)**
  - *First IOC - did not know what to expect.*
  - *Charming group of participants - patient with her and were kind with all tutors.*
  - *Good team of participants and tutors - working really well together.*
- **Ojuka Edward (O2k basic)**
  - *Very important what we are doing - makes science better, exacte, accurate.*
  - *Advances in science are important.*
  - *Mistakes made in the past - process till now is science.*
  - *The idea of the workshop is necessary for science.*
- **Fasching Mario (TPP basic)**
  - *Within the participants are potential tutors.*
  - *Each TPP group is different.*
  - *Practical skills and learning were really good never experienced so less bubbles during a workshop!*
  - *It was a small group with real enthusiasm (had their own computers to work on).*
  - *Understood the experimental problems.*

### What could be improved?

- *In the next workshop do not integrate the fluorescence module into O2k basic - focus on basic and not on fluorescence!*
- *Provide a separate session for the fluorescence module!*
- *Separate session with the fluorescence module - together with the O2k basic it was quiet confusing especially for beginners.*
- *Special sessions for people interested in would be good.*
- *Provide presentations as PDFs in advance on the USB or post on the website.*
- *A short introduction for those people who are not that advanced would be helpful - short introduction into the oxygraph (how it works and so on).*
- *People do not really read - reading is helpful but not all do it, some are confused and remain confused or are even more confused after reading!*
- *Oxygen kinetics would have been nice.*
- *Show how to prepare the homogenate and also fibre preparation.*

### General discussion

- *The wiki is great! Erich and all the Oroboros team did an excellent job!! Thank you very much!*
- *Everything was perfect!*
- *Wonderful hospitation and beautiful atmosphere! Thanks!*
- *The workshop plays a key part - gives technical support and provides a network of similar users.*
- *Bioblast is a good base.*
- *Excellent workshop!!*
- *the integration of the fluorescence module caused confusion especially to the beginners.*
- *Introduction to TPP is good.*
- *Special sessions for people interested in would be good.*

- *Basic features and also advanced features are good to see - problem with time as the limiting factor.*
- *Nice to see the fluorescence module but a better cut off is necessary (too confusing).*
- *Thanks for guiding through the workshop!*
- *Amazing about the Wiki - thanks for providing all the information on the web!*
- *Never been on a workshop like this - great workshop!*
- *Organizing a workshop is complicated - people attending have different backgrounds so it is difficult that everybody understands everything at once is difficult*
- *Spontaneous demo experiment: it is great because it is free-style and you get good comments during the experiment*
- *Handling of templates is important to get full documentation - templates and documentation are great - very good job!*