

To whom it may concern,

This year, from the 23rd-27th of July, I attended the MiPschool in Obergurgl Austria. This event was organised by the Mitochondrial Physiology Society and covered numerous facets of mitochondrial biology.

The event was primarily composed of talks given by experts in the mitochondrial field. However, student participation was also encouraged. On day two of the event there was a poster session in which many PhD students presented. Additionally, a series of presentations were given on the final day by five different students. The MiPschool culminated in a demo session in which the functionality of Oroboros O2K oxygraph was showcased.

As I have worked in the mitochondrial field for less than two years, the expert given lectures were extremely useful. The structural biology of the respiratory chain was extensively covered and I was given a glimpse into the true structural complexity of this system which is often not conveyed in textbook illustrations.

The bioenergetic processes measured by high resolution respirometry were also heavily discussed. I now have a much clearer understanding of the numerous substrate pathways utilised during mitochondrial respiration and how these pathways interact.

Finally, as the Oroboros oxygraph has recently been fitted with a module allowing the measurement of Q redox state, this topic was also discussed. Frankly, I knew very little about CoQ in its various forms. This topic was very eye opening for me.

The PhD student presentations were also very useful for a number of reasons. I found other students who were carrying out projects very similar to my own. As such, we were able to exchange experiences and I came away from this with many new ideas.

On the other hand, the range of topics covered in the student presentations was extremely broad. This was a very nice experience as I got to see the diverse and exciting body of research that is ongoing in this field.

The demo of the Oroboros oxygraph elegantly tied together the theoretical topics we had been discussing into a practical application. The structure of the MiPschool was such that the theoretical foundations which had been laid would satisfactorily come to life on the final day. This allowed us to have a deeper and more complete understanding of what we were observing during the oxygraph demo.

The Oroboros oxygraph is a powerful tool which can measure numerous respirometric outputs simultaneously. I am now confident that when using this technique, I will be able to take full advantage of its capabilities. I will also be able to disseminate what I have learned to colleagues wishing to use the Oroboros oxygraph.