

Measuring Metabolic Engines and Fuels

with the Agilent Seahorse XF Analyzer

June 20th, 2018

Martin-Luther-Universität Halle-Wittenberg

Medizinische Fakultät, Uniklinikum Halle (ZMG), Ernst-Grube-Str. 40

Seminarraum 15



Presenter:

Dr. Samiya Al-Robaiy

Martin-Luther-Universität Halle- Wittenberg – ZMG

Dr. Daniel Gebhard

Agilent Technologies, Inc.

Agenda

09:00 – 09:15 **Introduction of the Core Facility -Analysis- in the Center of Medical Basic Research (ZMG) in the Medical Faculty**

09:15 – 09:50 **Introduction to Seahorse Technology**

09:50 – 10:00 **Applied Metabolism: Stem Cell Research**

10:00 – 10:30 **Beyond Lactate: Measuring Glycolytic Rates in Living Cells**

10:30– 10:50 **A Novel XF Assay to Assess Cellular ATP Kinetics**

10:50 – 11:05 - Coffee Break –

11:05 – 11:25 **Measuring Immune Cell Activation in Real-time**

11:25 – 11:55 **Revealing Modes of Action with Isolated Mitochondria / Permeabilized Cells**

11:55 – 12:15 **Assay Optimization & Normalization**

12:15 – 13:15 - Lunch Break –

13:15 – 15:15 **Seahorse Wet-Lab**
- Real-time ATP Rate Assay-
(limited attendees)

15:15 – 16:45 **Assay Analysis Workshop**
(you are very welcome to bring your own assay files)

FREE WORKSHOP

Metabolism is the key to understanding cell function

In living cells, most of the energy produced is derived from three fuel sources: glucose, glutamine, and fatty acids. Mitochondrial access to these fuels impacts a wide variety of biological processes.

Use the Agilent Seahorse XF Analyzer to:

- Identify fuel dependencies to uncover cancer cell vulnerabilities.
- Explore how fuel preferences lead to cell fate decisions for differentiation and immune cell activation.
- Determine whether/how cells can adjust fuel oxidation to match nutrient availability while meeting energy demand.
- Distinguish metabolic adaptations due to genetic changes vs. those that take place due to nutrient deprivation.

For registration

Please contact daniel.gebhard@agilent.com until June 15th for registration and indicate if you would like to join the wet-lab.



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