

## About the Seminar

Biomarkers are displaying a broad range of indicators such as proteins, enabling to identify and monitor disease states.

Ideally, biomarkers allow us to assess risk, progression and cure of diseases, together with a prediction of success for a given treatment.

With this seminar, we aim to introduce you to latest developments and tools in biomarker research. The event will cover the broad range of biomarkers, from sub-cellular to live-cell markers.

We will highlight the impact of analyzing exosomes and microvesicles as well as virus-associated markers. Further you will learn more about the impact of metabolic switches and body-like microenvironments for primary cell culture.

Finally, biomarker aspects of single-cell cytokine profiles will be discussed as well as massive-parallel cytokine quantitation & phenotyping of cells.

## Who should attend?

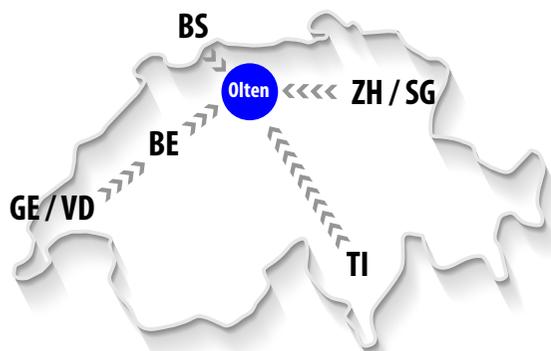
We would like to invite everyone interested in new aspects of biomarker research. You will enjoy a unique opportunity to interact with your colleagues, the speakers and with fellow researchers from academic and industrial institutions.

## Registration

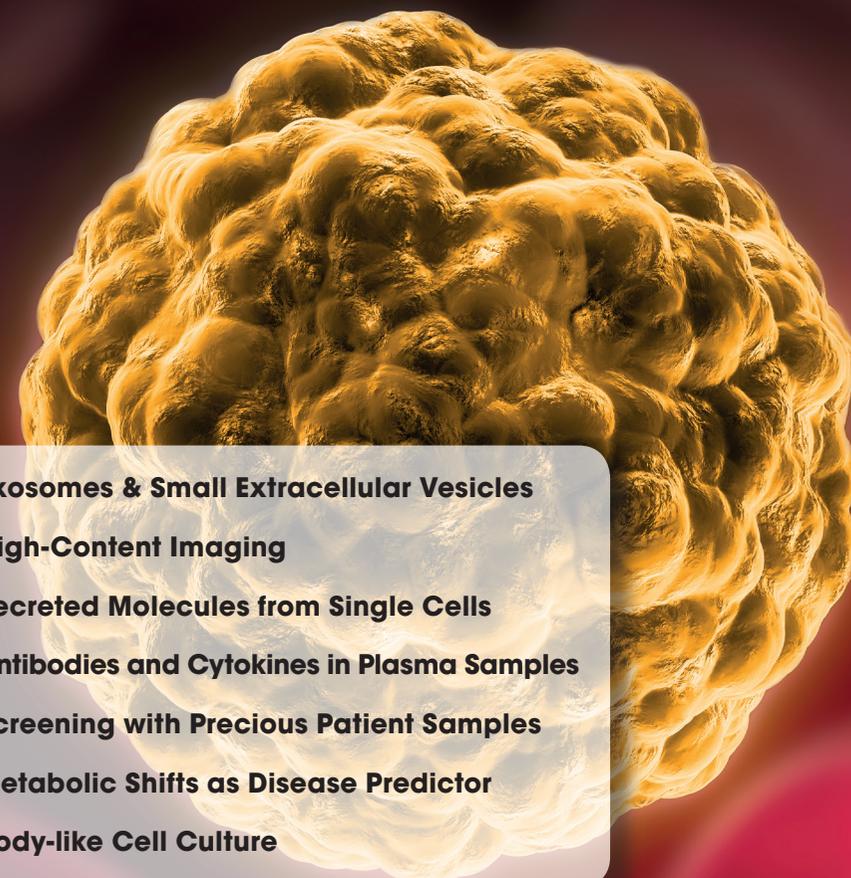
Your participation is **free of charge**. In order to register for the seminar, simply send us an email ([seminar@bucher.ch](mailto:seminar@bucher.ch)) or give us a call (phone 061 269 1111).

Alternatively you can **register online** at [www.bucher.ch](http://www.bucher.ch).

We will confirm your registration with detailed information and exact location of the event.



Convenient central location near train station

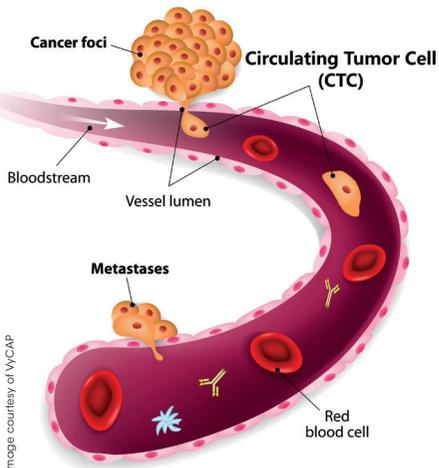
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- **Exosomes & Small Extracellular Vesicles**
  - **High-Content Imaging**
  - **Secreted Molecules from Single Cells**
  - **Antibodies and Cytokines in Plasma Samples**
  - **Screening with Precious Patient Samples**
  - **Metabolic Shifts as Disease Predictor**
  - **Body-like Cell Culture**

# BIOMARKERS

## FROM SUB-CELLULAR TO LIVE CELLS

NEW AND EXCITING TOOLS AND TECHNIQUES  
SEMINAR DAY IN **OLTEN** **MAY 21, 2019**

## How can you benefit with your participation?

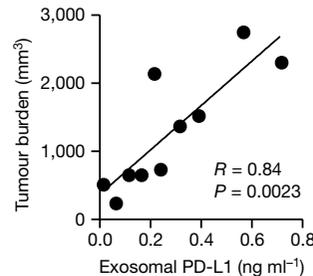


When talking about disease characterization and monitoring of relapses or progression, there are several indicators which are typically reported. Biomarker discovery and understanding constitute a highly active arena of life science research.

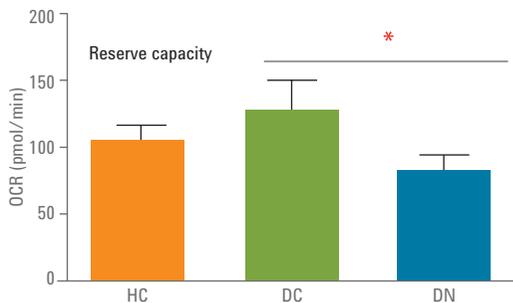
Personalized therapies are asking for individualized biomarkers and therefore for a constant endeavor for new markers and new approaches of identification.

Our seminar will highlight several examples, such as metabolism of primary cells from patient biopsies, which report on fitness of immune cells but also on aggressiveness

of cancer cells. Or, the characterization and concentration of exosomes from patient blood samples, allowing to deduce level of cancer burden, type or response to treatment. Another example is the challenging expansion of human primary tumor cells for possible identification of predictive and prognostic biomarkers.



Pearson correlation between the exosomal PD-L1 in plasma and tumour burden in xenograft-bearing nude mice.



Analysis of mitochondrial respiration in PBMCs. PBMCs isolated from patients with diabetes nephropathy (DN), diabetic patients (DC), and healthy controls (HC). The reserve capacity was calculated following the sequential addition of oligomycin, FCCP, and a combination of antimycin A and rotenone.

Bucher Biotec AG represents some of the most advanced manufacturers of highly innovative life science research instrumentation.

At this seminar, we will show you how you can implement and harness exciting new tools, which allow you easy access to comprehensive biomarker information.

## Seminar Talks & Guest Presentations

The Seminar will start at 9:00am and will end approx. at 5:00pm.

- **Welcome & Introduction**  
Georg Kienzle, PhD, Bucher Biotec AG
- **High Content Imaging – From Cellular Information to Data**  
Javier Garcia, PhD, Logos Biosystems
- **Detection of Subcellular Biomarkers by Flow Cytometry: Analysis of Small Extracellular Vesicles**  
Oliver Bauhofer, PhD, Bucher Biotec AG
- **From Molecules to Extracellular Vesicles: In Solution Sizing and Functional Assessment by FIDA**  
Henrik Jensen, PhD, FIDA-tech
- Lunch break
- **Assessing Functional Metabolism to Predict Disease-relevant Outcomes**  
Audrey Lilly von Münchow, PhD, Bucher Biotec AG
- **Regulation of Biological Pathways by Oxygen and Pressure Across Different Cell Types: Case Studies on the Effect of Body-like Cell Culture Conditions**  
Georg Kienzle, PhD, Bucher Biotec AG
- **High Throughput Quantification of Secreted Antibodies and Cytokines of Patient Samples in Pool and of Single Cells**  
Kathrin Dienst, PhD, Bucher Biotec AG
- Closing Remarks and Discussion

Multiple coffee breaks will allow you to interact with colleagues, the speakers and with fellow researchers from academic and industrial institutions.

