ISBC 2016 summer school IMC & DSC program

June 20	
9:00-9:30	**Arrival of participants at the laboratories. Quick presentation of the lab and speakers. Overview of the summer school.** **Location:** Center of Biomechanics & Biocalorimetry c/o Dept. Biomed.Engineering (DBE) Gewerbestr. 14 4123 Allschwil  Bus 48 Stop: im Brühl
9:30-10:30	**An introduction to isothermal microcalorimetry** - Range of possible and different instrument - Measurement principle in a nutshell - Factor influencing your measurement - Cells and calorimetry
10:30-10:50	**Coffee break**
10:50-12:30	**Microbiology and microcalorimetry** - Cell and calorimetry - Validating calorimetric data - Practical experiemnts (liquid culture, solid culture, biofilms)
12:30-13:45	**Lunch break** There is a cafeteria in the building where lunch can be obatined between 9CHF and 18CHF. Alternatively we have a small kitchen where participant can bring their own food. Feel free to choose the option that fits you the best.
13:45-14:50	**Introduction to DSC** *(by TA instrument specialists)* - Theoretical considerations - Practical considerations
14:50-15:10	**Coffee break**
15:10-16:30	**DSC parctical experiment** *(by TA instrument specialists)*
16:30- open end	**Discussions**

June 21	
9:00-9:30	**Arrival of participant (at the lab. Gewerbestrasse 14-16)**
9:30-10:30	**DSC data analysis**
10:30-10:50	**Coffee break**
10:50-12:30	**DSC data analysis**
12:30-13:30	**Lunch break** There is a cafeteria in the building where lunch can be obatined between 9CHF and 18CHF. Alternatively we have a small kitchen where participant can bring their own food. Feel free to choose the option that fits you the best.
13:30-14:30	**IMC data analysis** - Data extraction - Presentation a few helpful software - Description of IMC curves - Growth model fitting on IMC data
14:30-15:00	**Coffee break**
15:00-16:00	**IMC data analysis** - Curve fitting in practice with R and the grofit package - Step by step curve fitting with the extracted data
16:00-16:20	**Coffee break**
16:20-17:20	**Lecture on bioenergetics and calorimetry** *By Thomas Maskow*
17:20-18:00	**Summer school evaluation** - evaluation of the summer school - tell us what you liked and where you see possible improvement
18:00-20:00	**ISBC welcome reception** Possibilities to meet with different people from the field of calorimetry

IMPORTANT	**To save time participant are kindly requested to install R and the grofit package on their computer. Also we recommend that you install the R-studio interface (or another interfaces such as Rkward or JGR if you have an older computer)** **See:** *https://**cran**.**r**-project.org/* *And:https://www.**rstudio**.com/*

Please note that the program might change quite a lot depending on participants interest. Our goal here is to have an informal summer school with as much interactions as possible between participants and instructors.