



# 2016 XIX ISBC Conference

International Society for Biological Calorimetry

June 22 - 24, **Basel**, Switzerland



Department of  
**Biomedical  
Engineering**



## ISBC 2016 Program

The XIX ISBC (2016) and the associated summer school would not have been possible without the commitment and support of our sponsors. The organization committee wish to thank the following sponsors for their contribution.



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# ISBC 2016 program

<b>June 21</b>	
18:00-20:00	<p>Welcome reception. Meeting between summer school attendees and conference participants in a very informal setting. Early registration for congress participants</p> <p><b>Location:</b> Center of Biomechanics &amp; Biocalorimetry c/o Dept. Biomed.Engineering (DBE) Gewerbestr. 14 4123 Allschwil</p> <div style="text-align: right;">             Bus 48            Stop: im Brühl         </div>
<b>June 22</b>	
8:00-9:15	<p><b>Registration - Welcome coffee</b></p> <p><b>Location:</b> Schönenbuchstrasse 9, 4055 Basel, Switzerland. Oekolampad building</p> <div style="text-align: right;">             Tram 6            Stop: Allschwilerplatz         </div>
9:15-9:30	Welcome talk
<b>9:30-12:00</b>	<b>Session 1: Biomedical applications of calorimetry</b>
9:30-9:50 Muntean et al.	Analysis of microcalorimetric post antibiotic challenge response of bacteria-drug interaction: <i>Staphylococcus aureus</i> vs Cefoxitin
9:50-10:10 Gysin et al.	Microcalorimetric study of <i>Trypanosoma congolense</i> growth and growth inhibition by antitrypanosomal drugs

10:10-10:30 Solokhina et al.	Mycobacteria biofilm activity and susceptibility to antimycobacterial agents
<b>10:30-11:00</b>	<b>Coffee break - Poster viewing - discussion</b>
11:00-11:20 Lerchner et al.	A chip calorimetry based method for the real-time monitoring of red blood cell sickling
11:20-11:40 Astasov et al.	Calcium affinity to exopolysaccharides of cariogenic species
<b>11:40-12:00</b>	<b>To be announced</b>
<b>12:00-13:30</b>	<b>Lunch break</b>
<b>13:30-16:40</b>	<b>Session 2: New instrumentation and novel approaches</b>
13:30-13:50 Suurkuusk	The new generation TAM - TAM IV (sponsor presentation)
13:50-14:10 Leelaram et al.	Biocalorimetry a better monitoring tool in comparison with oxygen uptake (OUR) and carbon dioxide evolution (CER) rates in Yeast Inulinase production
14:10-14:30 Jansson	The calScreener: Four Years Down the Road- Application Diversity (sponsor presentation)
14:30-14:50 Mohan et al	Development of fermentation calorimeter with improved sensitivity for bioprocess monitoring and control applications
<b>14:50-15:20</b>	<b>Coffee break - Poster viewing - discussions</b>
15:20-15:40	C3 title to be announced (sponsor presentation)
15:40-16:00 Matthews et al	Applications of the NanoDSC (TA instruments) (sponsor presentation)
16:00-16:20	Calmetrix: title to be announced (sponsor presentation)
16:20-16:40	Syrris / Blacktrace: title to be announced (sponsor presentation)

<b>June 23</b>	
<b>8:30-9:00</b>	<p><b>Welcome coffee - registration</b></p> <p><b>Location:</b> Schönenbuchstrasse 9, 4055 Basel, Switzerland. Oekolampad building</p>  <p>Tram 6 Stop: Allschwilerplatz</p>
<b>9:00-12:20</b>	<b>Session 3: Environmental calorimetry</b>
9:00-9:20 Rodenfels	Energetics of early vertebrate development
9:20-9:40 Kumar et al.	Role of monoculture in bacterial consortium in biotransformation of Azo dye: A Biocalorimetric investigation
9:40-10:00 Rohde et al.	Walk the line: Enhanced bioproduction using calorespirometry
10:00-10:20 Bölscher et al.	From soil calorimetry to climate change modelling: Temperature response of microbial resource-use efficiency
<b>10:20-10:50</b>	<b>Coffee break - Poster viewing - discussion</b>
10:50-11:10 Bravo et al.	A multi-method approach study on cadmium-immobilizing bacteria into Cocoa crops from northeastern Colombia
11:10-11:30 Maskow et al.	Never Ending Story: The development of photocalorimetry
11:30-11:50 Kula et al.	Changes in the chemical composition and metabolic activity in the green algal cells in response to silicon
11:50-12:10 Burnecki et al. Pres. by Saja	Assessment the toxicity of nickel using endosymbiotic <i>Paramecium bursaria</i>
12:10-12h30	Continuous monitoring by isothermal calorimetry of fungal colonization of wood materials

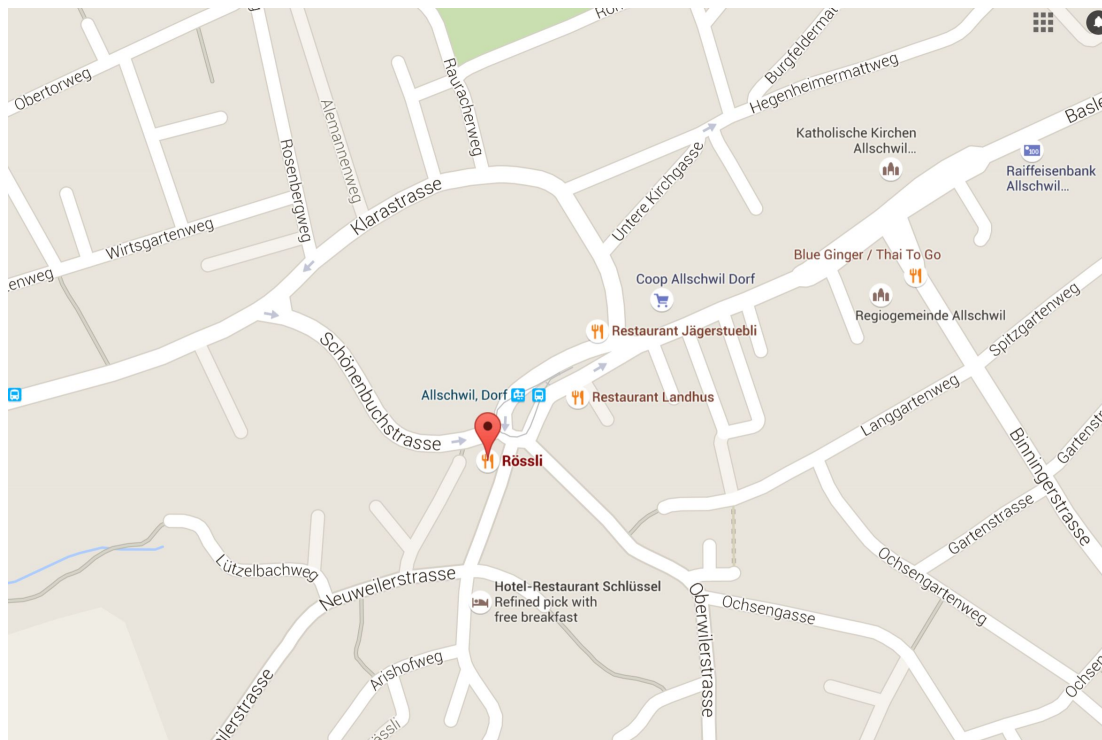
<b>12:30-14:00</b>	<b>Lunch break</b>
<b>14:00-17:00</b>	<b>Session 4: Food and related product calorimetry</b>
14:00-14:20 Wadsö	Studying grain germination by isothermal calorimetry
14:20-14:40 Yusof et al.	The Use of Isothermal Calorimetry to Measure the Metabolic Heat Production of Spinach Leaves as Consequences of Vacuum Impregnation Treatment
14:40-15:00 Torres et al.	Thermoanalytical investigations of honey produced by some species of stingless bees in Guainia, Colombia
<b>15:00-15:30</b>	<b>Coffee break</b>
15:30-15:50 Dodoo et al.	Evaluating the gastrointestinal fluid tolerance of personalized probiotics using calorimetry
15:50-16:10 Adamberg et al.	Metabolism of polysaccharides by fecal microbiota - a microcalorimetry study
<b>16:10-16:55</b>	<b>Lavoisier lecture by Prof. Nieves Barros</b>
<b>19:00-22:30</b>	<b>Congress diner</b>
<b>June 24</b>	
<b>8:30-9:00</b>	<p><b>Welcome coffee</b></p> <p><b>Location:</b> Schönenbuchstrasse 9, 4055 Basel, Switzerland. Oekolampad building</p> <div style="text-align: right;">   Tram 6  Stop: Allschwilerplatz </div>
<b>9:00-12:00</b>	<b>Session 5: Biotechnology and calorimetry</b>

9:00-9:20 Brueckner et al.	Comparison of Tunable Diode Laser Absorption Spectroscopy and Isothermal Micro-calorimetry for Non-invasive Detection of Microbial Growth in Media Fills
9:20-9:40 Hagedoorn et al	Feel the heat of an enzyme - calorimetry of enzyme catalyzed reactions
9:40-10:00 Jacobs	Absolute, label-free measurement of enzyme activity by microcalorimetry
10:00-10:20 Linkuvienė et al	Thermodynamics of carbonic anhydrase - inhibitor binding for drug design
<b>10:20-10:50</b>	<b>Coffee break - Poster viewing - discussion</b>
10:50-11:10 Müller et al.	Probing Protein Adsorption on Surfactant-Coated Nanoparticles with Isothermal Titration Calorimetry
11:10-11:30 del Río et al.	Worth reconsidering the Wiseman Isotherm?
<b>11:30-12:00</b>	<b>Poster session</b>
<b>12:00-13:30</b>	<b>Lunch break</b>
<b>13:30-15:00</b>	<b>Closing session: open topics</b>
	- next ISBCs
	- education in calorimetry, feedback from the summer school
	- integration of calorimetry, link with other societies
	- topic proposed by the audience



# ISBC 2016 Congress diner

The ISBC conference dinner will take place at Restaurant Rössli (see map below). Please do not forget your congress badge.



Dorfpl. 1, 4123 Allschwil, Switzerland

roessli-allschwil.ch

+41 61 486 96 96



## Tram 6

### Terminus stop "Allschwil, Dorf"

The restaurant is located only a few meters from the terminal station of tram line 6. Feel free to take a tour in the old part of Allschwil as there are many nice and typical restored half timbered houses in the center of Allschwil and around.

**For more about Allschwil:**

<https://en.wikipedia.org/wiki/Allschwil>