

Introductory Technical Workshop

Science and Applications of Biomaterials, Biosensors, Tissue Engineering and Drug Delivery

Tuesday 28th – Wednesday 29th August 2007

Swiss Federal Institute of Technology, ETHZ

Zurich, Switzerland

MESSAGE FROM THE WORKSHOP CHAIR

This workshop, financially supported and organized by the **Competence Centre for Materials Science and Technology (CCMX)**, **Materials for the Life Sciences Unit (MatLife)**, is addressed to members of research and development groups at both academic institutions (particularly master's and PhD students, postdoctoral fellows) and industry (e.g. young researchers who have started to work in industry, with an interest in the topics of the workshop). The aim is also to bring together chemists, engineers, biologists, and clinicians working on interdisciplinary approaches to discuss and understand various topics related to controlled biological responses to materials in various biomedical and biotechnological applications.

The workshop will provide tutorial-style introductory lectures by scientists and lecturers who are highly recognized in their fields, followed by plenary discussion sessions. All lectures will start with a general introduction into the specific field, covering the important scientific and technological aspects, the state of the art and problems/challenges in terms of both the underlying scientific issues as well as applications, with emphasis on the materials and surface aspects. The speakers have been asked to provide information in a format that also enables non-specialists to follow and profit from the lectures. A further aim is to provide the opportunity for the participants to make personal contacts to the lecturers for future interactions.

The introductory technical workshop of BIOSURF VII, designed to be the first in a series, will address a number of topics, relevant from both a scientific and application standpoint, in the areas of biomaterials, biosensors, tissue engineering/regenerative medicine and carrier systems for targeted drug delivery.

Prof. Marcus Textor

ETH Zurich

CCMX-Materials for the Life Sciences Director and BIOSURF VII Chair



Workshop BIOSURF VII Scientific Program

(August 28th-29th ETH Zurich)

1st Day - Tuesday August 28th
(ETH Zurich, HG Lecture Hall G 5)

Designed Biomaterial Surfaces & Biosensing

Chaired by *Janos Vörös, ETH Zurich*

13:05-14:00 **David W. Grainger** *University of Utah (USA)*

Interfacial Aspects of Medical Devices

14:05-15:00 **Christophe Danelon** *EPF Lausanne (CH)*

Erik Reimhult *ETH Zurich (CH)*

Lipid Vesicles and Supported Lipid Bilayers: Dynamic Cell Membrane Mimics

15:00-15:30 Coffee Break (HG Foyer Sud)

15:35-16:30 **Deborah Leckband** *University of Illinois (USA)*

Mechanics of Intercellular Adhesion: From Single Molecules To Tissues

16:35-17:30 **Nicholas D. Spencer** *ETH Zurich (CH)*

Tribology of Human Articular Joints and Joint Prostheses: What We Know and What We Don't

17:30-18:30 Aperitif (HG Dozentenfoyer, Main building, J floor)

2nd Day - Wednesday August 29th
(ETH Zurich, HG Lecture Hall G 5)

Tissue Engineering & Drug Delivery

Chaired by *Geoff Richards, AO Davos*

08:35-09:30 **Simon Hoerstrup** *University Hospital Zurich (CH)*

Overview of Cardiovascular Tissue Engineering and Regeneration

09:35-10:30 **Katja Nuss** *University Hospital Zurich (CH)*

Animal Experiments in Conjunction With Biomaterials and Biotechnology: Design and Interpretation

10:30-11:00 Coffee (HG Foyer Sud)

11:05-12:00 **Jeffrey A. Hubbell** *EPF Lausanne (CH)*

Kazunari Akiyoshi *Tokyo Medical & Dental University (J)*

Drug Delivery and Cancer Therapy

Introductory Technical Workshop at a Glance

Tuesday 28 th		Wednesday 29 th		Thursday 30 th	Friday August 31 st
		08:00-08:30	<i>Registration</i>	07:30-08:30	<i>Registration</i>
		08:35-09:30	Hoerstrup	BIOSURF VII Conference	
		09:35-10:30	Nuss		
		10:30-11:00	Coffee break (Ciba)		
		11:05-12:00	Hubbell/Akiyoshi		
11:00-13:00	<i>Registration</i>	11:00-13:00	<i>Registration</i>		
		BIOSURF VII Conference			
13:05-14:00	Grainger				
14:05-15:00	Danelon/Reimhult				
15:00-15:30	Coffee break (Kratos)				
15:35-16:30	Leckband				
16:35-17:30	Spencer				
17:30-18:30	Aperitif (Straumann)				

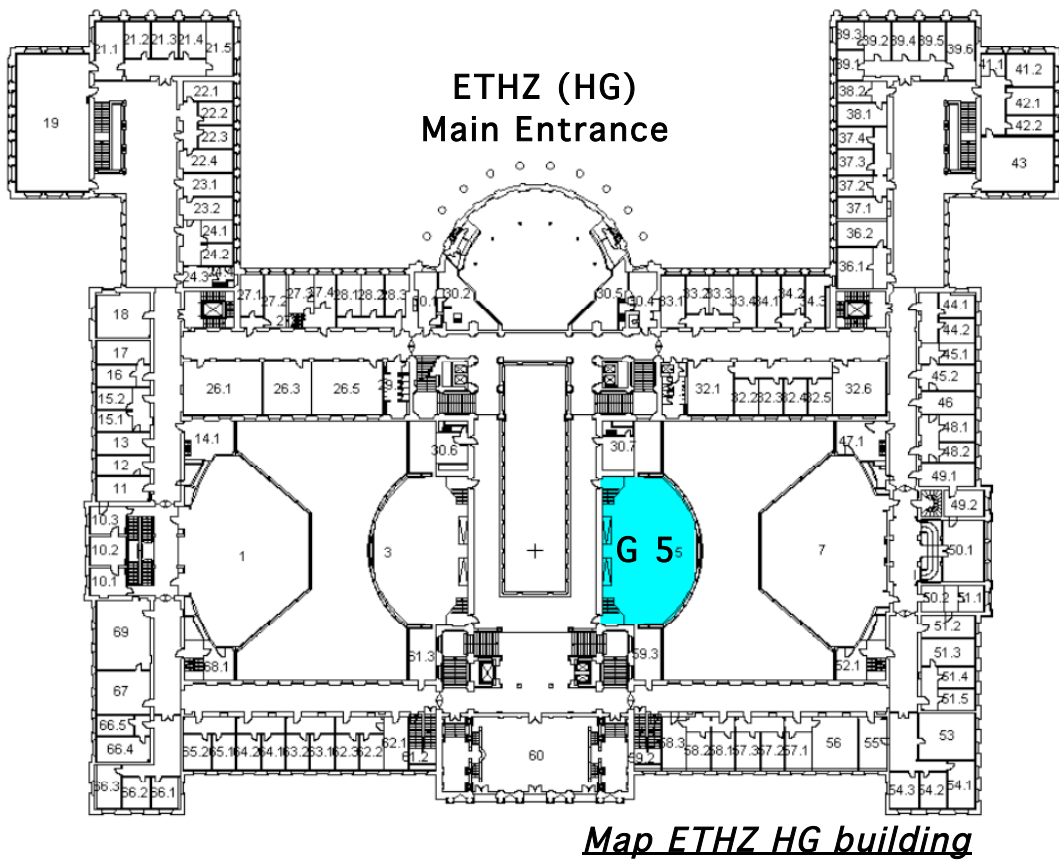
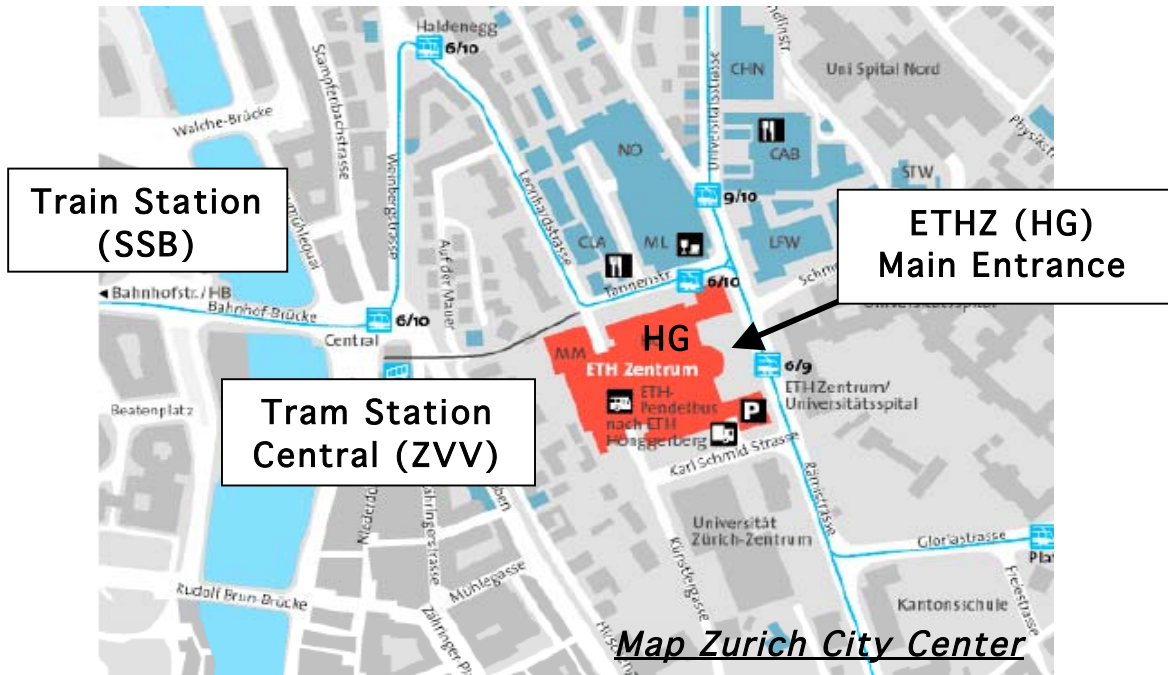
Tutorial

40 min + 15 min discussion



BIOSURF VII Workshop Venue
ETH Center, Main Building, lecture Hall HG G5,
Rämistrasse 101, Zurich

Maps



How to reach the venue?

By tram Line 6 from "Central" or Line 10 from the train station "Hauptbahnhof" to "ETH Universitätsspital". Main entrance on the street Rämistrasse

General Information

Workshop registration desk

The registration desk will be located in the Main Hall of the ETH Center Main Building (HG) and will be open during the following hours:

Tuesday August 28 th	11:00 – 13:00
Wednesday August 29 th	08:00 – 08:30

Workshop secretariat

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Workshop Reception

Tuesday 28th 17:30 – 18:30

The delegates of the workshop are invited to the workshop's aperitif that will take place in the top ("J") floor of the ETH Center Main Building (HG).