„3-Dimensional Cell Cultures and Drug Discovery“

Workshop organized by the Marie Curie ITN Project „IT-LIVER“ and the Medical University of Vienna

Contact information: wolfgang.mikulits@meduniwien.ac.at
Local organisation:

Wolfgang Mikulits

Scientific organisation:

Wolfgang Mikulits (Medical University of Vienna, Austria)

Sponsors:
PROGRAM

IT-LIVER Workshop:
“3-Dimensional Cell Cultures and Drug Discovery”

Venue: „Kleiner Festsaal“, University of Vienna, Universitätsring 1

Day 1 – Thursday / February 27th

8.00 Registration
9.00 Opening Remarks by
Isabel Fabregat (IT-LIVER coordinator)
Michael Trauner (IT-LIVER Advisory Board Member)

Session 1: “Tissue Reconstitution in 3D”

Chair: S. Dooley and W. Mikulits

9.15 Francesco Pampaloni, Buchmann Institute for Molecular Life Sciences, Goethe University Frankfurt, Germany
“Recent advancements in multicellular spheroids microscopy with high throughput light sheet fluorescence microscopy”

9.50 Arto Urtti, Centre for Drug Research, University of Helsinki, Finland
“Three-Dimensional Hepatic Cell Cultures: Formation of Bile Canaliculi Structures, Directional Transport and Metabolism”

10.25 Jan G. Hengstler, Leibniz Research Centre, Dortmund, Germany
“In vivo-like behavior of cultured hepatocytes in 3D matrixes and hepatosphere models”

11.00 Coffee break

Session 2: “Cell Signalling and Motility in 3D”

Chair: A. Moustakas and H. Dolznig

11.30 Katarina Wolf, Department of Cell Biology, Radboud University Nijmegen Medical Centre, The Netherlands
“Preclinical intravital microscopy on radiation resistance and anti-integrin therapy”

12.05 Wolfgang Sommergruber, Boehringer Ingelheim, Vienna, Austria
“Molecular mechanisms triggering the crosstalk between tumor and stromal cells”

12.40 Martin Jechlinger, EMBL Monterotondo, Italy
“3D cell cultures of primary mammary cells to study oncogene addiction”

13.15 Lunch
Session 2 - continued: “Cell Signalling and Motility in 3D”

Chair: A. Moustakas and H. Dolznig

14.15 Helmut Dolznig, Institute of Medical Genetics, Medical University of Vienna, Austria
“Modeling colon cancer in vitro: signaling and drug response in organotypic 3D cultures”

14.50 Erik Sahai, Cancer Research UK London Research Institute, London, UK
“Imaging responses to therapy in 3D cultures and mouse models”

15.25 Valerie Fock, Department of Obstetrics and Fetal-Maternal Medicine, Medical University of Vienna, Austria
“Ex vivo trophoblast invasion in 3D matrices”

16.00 Coffee break

Session 3: “Stemness and Metabolism in 3D”

Chair: I. Fabregat and M. Huch

16.30 Elmar Heinzle, Biochemical Engineering, Saarland University, Saarbruecken, Germany
“Human liver reactors for metabolic network characterization”

17.05 Magnus Ingelman-Sundberg, Department of Physiology and Pharmacology, Karolinska Institute, Stockholm, Sweden
“Novel 3D systems for prediction of drug induced hepatotoxicity”

17.40 Meritxell Huch, Hubrecht Institute for Developmental Biology and Stem Cell Research, Utrecht, The Netherlands
"Lgr5 stem cells. Hepatic organoids and regenerative medicine"

20.00 DINNER with speaker and IT-LIVER (Melker Stiftskeller)

Day 2 – Friday / February 28th

Session 4: “Drug Response in 3D”

Chair: A. Sanchez and A. Eger

9.00 Georg Krupitza, Institute of Clinical Pathology, Medical University of Vienna, Austria
“Bulky tumour intravasation through endothelial walls: A 3D co-culture model to discover inhibitory drugs”

9.35 Katrin Zeilinger, Division of Experimental Surgery, Charite’ - Campus Virchow-Klinikum, Berlin, Germany
“Drug metabolism activities in perfused 3D liver cell bioreactors”

10.10 Andreas Eger, IMC University of Applied Sciences Krems, Austria
“Inhibition of epidermal growth factor receptor and genotpye-drug response relationships in organotypic cancer models”

10.45 Daniel Senfter, Institute of Clinical Pathology, Medical University of Vienna, Austria
“Drug resistance and tumour intravasation: putative mechanisms involving microRNA 200 family”

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### Session 5: “Preclinical Drug Application in 3D”

**Chair:** S. Leporatti and P. M. Alves

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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution/Location</th>
<th>Title</th>
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<tr>
<td>11.00</td>
<td>Coffee break</td>
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<tr>
<td>11.30</td>
<td>Jens M. Kelm</td>
<td>InSphero, Zurich, Switzerland</td>
<td>“Discriminating drug effects in multi-cell type 3D microtissues”</td>
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<td>12.05</td>
<td>Paula M. Alves</td>
<td>ITQB-UNL and IBET, Oeiras, Portugal</td>
<td>“3D human cell models for pre-clinical research and long-term toxicity testing: towards prediction of hepatic drug metabolism and neurotoxicity”</td>
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<td>12.40</td>
<td>Matthias Nees</td>
<td>Medical Biotechnology Knowledge Centre, Turku, Finland</td>
<td>“Complex cell- and tissue culture models for phenotypic, imaging-based high content screens”</td>
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<td>13.15</td>
<td>Catarina Brito</td>
<td>ITQB-UNL, Oeiras, Portugal</td>
<td>“Industrialization” of complex cell models for target validation and drug discovery”</td>
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<td>13.50</td>
<td>Concluding remarks</td>
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ACCOMODATION AND TRAVEL INFORMATIONS
Situation:

The workshop venue, the hotels and the restaurant for dinner are all located in the centre of Vienna. Out from the underground stations it will take you about 5 – 10 minutes to walk.

HOTELS

Hotel Boltzmann
Boltzmanngasse 8
1090 Vienna
Tel: +43 1 354 50 0    Fax: +43 1 354 50 816
E-Mail: info@hotelboltzmann.at
Homepage: http://www.hotelboltzmann.at/en/home.php

Hotel Alpha
Buchfeldgasse 8
1080 Vienna
Tel: +43 1 403 52 91    Fax: +43 1 403 52 91 - 62
E-Mail: alpha@austria-hotels.at
Homepage: http://www.austria-hotels.at/hotel-alpha/index.html

Hotel Mercure Josefshof Wien
Josefsgasse 4 - 6
1080 Vienna
Tel: +43 1 404 19   Fax: +43 1 404 19 150
E-Mail: info@josefshof.com
Homepage: http://www.josefshof.com/en/hotel

How to get to the hotels:

By airplane:

Vienna Airport is ideally and centrally located. You can reach the center of Vienna quickly by City Airport Train, S-Bahn (suburban railway) or bus. There are also taxis & limousines at the airport.

City Airport Train/ CAT
From/ to Wien Mitte nonstop in 16 minutes! Costs for the one-way ticket: EUR 11,00 you can book the tickets online!

S-Bahn
From/ to Wien Mitte in 25 minutes. Costs for the one-way ticket: EUR 3,80 you can book the tickets online!
http://www.oebb.at/en/
Buses
Vienna Airport Lines: from/to Wien Morzinplatz, Meidling, Westbahnhof or Kaisermühlen in 20-45 minutes. Costs for the one-way ticket: EUR 8,00 you can buy the ticket directly on the bus
http://www.postbus.at/en/Airportbus/Vienna_AirportLines/index.jsp

From Wien Mitte you can take:

Underground U4
Stop “Wien Landstraβe” to “Wien Schottenring” direction “Heiligenstadt“

Change there to Underground U3
Stop “Wien Schottenring” to “Wien Schottentor” or “Wien Rathaus” direction “Wien Karlsplatz“

Taxis & limousines
Taxis & limousines are available for passengers wishing to travel independently. They are flexible and above all offer a convenient way of travelling directly to your destination in Vienna. The costs amount between EUR 31,00 and EUR 38,00.

http://www.airportdriver.at/en
http://www.airportservices-vie.com/
http://www.flughafentaxi.at/cgi-bin/cgi.exe/WService=shop/home?sprache=EN

By train:

From Westbahnhof:
Take Underground U3
Stop “Wien Westbahnhof” to “Wien Volkstheater” direction “Wien Simmering“

Change there to Underground U2
Stop “Wien Volkstheater” to “Wien Schottentor” or “Wien Rathaus” direction “Wien Aspernstraβe“

From Wien Hauptbahnhof:
Please use the exit “Wien Hauptbahnhof Ost”
Take Tramway “D”
Stop “Wien Hauptbahnhof Ost S” to stop “Wien Schottentor” (for Hotel Blotzmann) or to stop „Wien Dr.-Karl-Renner-Ring”(for Hotel Alpha and Hotel Mercure Josefshof Wien direction “Wien Nußdorf, Beethoven gang“

Time table information and route map service of the Vienna transportation system “Wiener Linien”: http://www.wienerlinien.at/eportal/ep/home.do?tabld=0
WORKSHOP VENUE

IT-LIVER Workshop “3-Dimensional Cell Cultures and Drug Discovery”
Thursday / February 27th – Friday/February 28th 2014
University of Vienna “Kleiner Festsaal”
Main entrance/1st floor
Universitätsring 1
1010 Vienna
Homepage: http://www.univie.ac.at/en/
DINNER

Thursday / February 27th 2014 20.00
Melker Stiftskeller
Schottengasse 3
1010 Wien

Please note that the dinner at the Melker Stiftskeller (February 27th 2014) is going to be paid by

![Commercial logos]

FURTHER INFORMATIONS ABOUT VIENNA

Vienna weather is cold in winter (December to February); freezing temperatures and snow are not uncommon. The maximums can reach 7ºC during this time although it often drops below freezing point. Throughout February, the most common forms of precipitation are moderate snow, moderate rain, light rain, and light snow.

Here are some more interesting and helpful links about Vienna:

[http://www.weather.com/weather/tenday/Vienna+Austria+AUXX0025](http://www.weather.com/weather/tenday/Vienna+Austria+AUXX0025)