

“Key Pathways in Infection and Cancer”

Opening for the new MSc study program in
“**Comparative Biomedicine**”

November 2 – 4, 2016



University of Veterinary Medicine, Vienna

Organizing Committee:

Dr. 's Birgit Strobl, Richard Moriggl and Mathias Müller

Key Pathways in Infection and Cancer

Infectious diseases and cancer are study subjects of major relevance to our societies. In the era of molecular medicine comparative approaches have become an important research area to transfer basic research into therapeutic strategies. Infectious disease and cancer share important features that can be recognized with molecular pathology or NGS and systems biology approaches. We want to raise synergies in education and research to promote a new generation of MSc students trained on our campus under the principle of “One Health – One Medicine”. There is future need, e.g. to establish a curative treatment for veterinarian species, to create test systems for mutations that affect pathophysiological processes and to gain deeper understanding what the key pathways in infection and cancer have in common. Furthermore, test systems define novel drug targets and that helps to foster translational research in the era of precision medicine. Animal studies within an ethical and legal framework are essential to push biomedical research forward.

As technologies advance with a very rapid speed we live in promising times for new discoveries and novel therapeutic interventions. The University of Veterinary Medicine in recognition of this international trend aims to train students to succeed in this challenging research environment. We are therefore constantly reviewing and modernising our curriculum. We invite you to a two day kick-off meeting to celebrate the launch of the new study program focus on Comparative Biomedicine.

To establish an attractive program for this multi-disciplinary endeavour multiple institutes of our campus have joined forces. The meeting is also greatly facilitated by the recent integration of the Ludwig Boltzmann Institute for Cancer Research. We see this approach in the tradition of the pioneer of comparative pathology, Rudolf Virchow (1821-1902). His visionary comment *"Between animal and human medicine there is no dividing line – nor should there be. The object is different but the experience obtained constitutes the basis of all medicine."* serves as inspiration for us to contribute to modern biomedicine.

We look back on successful years at our campus and we are aware that future successes rely increasingly on international collaboration, access to infrastructure and expert advice. We are convinced that the 2016 meeting will contribute on these important aspects in light of research of infectious disease and cancer. We are therefore honored to welcome you in Vienna. We thank our external speakers to make the meeting attractive.

Programme overview

Thursday, 3.11.2015:

Day of “Key Pathways in Infectious Disease”

Festsaal at University of Veterinary Medicine, Vienna Veterinärplatz 1

(<https://www.vetmeduni.ac.at/en/>)

- **9:15** **Opening Ceremony**
 - **9:30** **Scientific session 1** (á 20 min talks of 3 speakers)
 - 11:00 Coffee
 - **11:30** **Scientific session 2** (á 20 min talks of 3 speakers)
 - 13:00 Lunch
 - **14:30** **Scientific session 3** (á 20 min talks of 3 speakers)
 - 16:00 Coffee
 - **16:30** **Scientific session 4** (á 20 min talks of 3 speakers)
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Friday, 4.11.2015:

Day of “Key Pathways in Cancer”

- 9:00 **Scientific session 5** (á 20 min talks of 3 speakers)
 - 10:30 Coffee
- 11:00 **Scientific session 6** (á 20 min talks of 3 speakers)
 - 12:30 Lunch
- 14:00 **Scientific session 7** (á 20 min talks of 3 speakers)
 - 15:30 Coffee
- 16:00 **Scientific session 8** (á 20 min talks of 2 speakers)
 - 20:00 Dinner - Heurigen

Scientific Programme

Thursday, 3.11.2016	
9:15 Welcome	Vice Rector for Research Otto Doblhoff-Dier
9:30 - 11:00	Chair: Anja Joachim and Armin Saalmüller
Scientific Session 1	
1. Harmit Singh Malik, HHMI Investigator, Fred Hutchinson Cancer Research Center, Seattle <i>"Rules of engagement: evolutionary arms races between host and viral genomes."</i>	
2. Gabriele Pradel, RWTH, Aachen University <i>"Complement evasion by malaria parasites"</i>	
3. Thomas Decker, Max F. Perutz Laboratories, Vienna <i>"STAT-NFκB pathway cooperativity in bacterial infection"</i>	
11:00 Coffee break	
11:30 – 13:00	Chair: Dagmar Stoiber and Mathias Müller
Scientific Session 2	
4. Pavel Kovarik, Max F. Perutz Laboratories, Vienna <i>"The balancing act of type I interferons in invasive Streptococcus pyogenes infection"</i>	
5. Sylvia Knapp, CeMM Research Center for Molecular Medicine of the OeAW, Vienna <i>"Macrophage polarisation during the course of infection"</i>	
6. Andreas Bergthaler, CeMM Research Center for Molecular Medicine of the OeAW, Vienna <i>"Viral pathogenesis and antiviral immune responses"</i>	
13:00 Lunch at the meeting venue	
14:30 – 16:00	Chair: Elena Pohl and Till Rümener
Scientific Session 3	
7. Michael Sixt, IST Austria, Klosterneuburg <i>"Morphodynamics of immune cells"</i>	
8. Wilfried Ellmeier, Medical University Vienna <i>"Molecular mechanisms of immune cell development and function"</i>	
9. Jose Penales, University of Glasgow <i>"Phage-inducible chromosomal islands"</i>	
16:00 Coffee break	
16:30 – 18:00	Chair: Veronika Sexl and Thomas Rüdiger
Scientific Session 4	
10. Thomas Baumert, Medical University Vienna <i>"Viral infection, signaling and cancer"</i>	
11. Rushad Pavri, Research Institute of Molecular Pathology, Vienna <i>"Molecular mechanisms of antibody diversification"</i>	
12. Hannes Stockinger, Medical University Vienna <i>"Tick borne diseases"</i>	

Scientific Programme

Friday, 4.11.2016	
9:00 – 10:30 Scientific Session 5	Chair: Birgit Strobl and Christian Schlötterer
13. Christian Seiser, Max F. Perutz Laboratories, Vienna <i>“Lessons from HDACs in cancer”</i>	
14. Nancy Hynes, Friedrich Miescher Institute, Basel <i>„Decreased NK-cell tumour immunosurveillance consequent to JAK inhibition enhances metastasis in breast cancer models”</i>	
15. Florian Grebien, Ludwig Boltzmann Institute for Cancer Research <i>“Identification of critical effectors of leukemia oncoproteins using integrated approaches”</i>	
10:30 Coffee break	
11:00 – 12:30 Scientific Session 6	Chair: Monika Ehling-Schulz and Richard Moriggl
16. Radek Skoda, University Hospital of Basel <i>“Stem cell dynamics and disease initiation in myeloproliferative neoplasms”</i>	
17. Kay-Uwe Wagner, University of Nebraska Medical Center <i>“Oncogenic signaling networks in mammary tumorigenesis and pancreatic cancer progression”</i>	
18. Christoph Bock, CeMM Research Center for Molecular Medicine of the OeAW, Vienna <i>“Dissecting cancer biology by epigenome mapping and single-cell sequencing”</i>	
12:30 Lunch	
14:00 – 15:30 Scientific session 7	Chair: Daniela Fux and Lukas Kenner
19. Tom Look, Dana-Farber Cancer Institute, Harvard <i>“Molecular pathogenesis and drug synergism in a Zebrafish model of high risk neuroblastoma”</i>	
20. Stefan Kubicek, CeMM Research Center for Molecular Medicine of the OeAW, Vienna <i>“Targeting chromatin pathways with small molecules”</i>	
21. Gustavo Leone, Comprehensive Cancer Center, The Ohio State University <i>“Where viruses meets cancer: Visualizing E2F activators and repressors at the single cell level in mice”</i>	
15:30 Coffee break	
16:00 – 17:30 Scientific session 8	Chair: Marina Karaghiosoff and Dieter Klein
22. Heinrich Kovar, St. Anna Children´s Cancer Research Center, Vienna <i>“Lnc-ing stress response to tumor susceptibility in Ewing sarcoma”</i>	
23. Philipp Staber, Medical University Vienna, <i>“New Leukemia and Lymphoma treatment concepts emerging from cancer genomic landscape studies”</i>	
24. Graham Tebb, University of Veterinary Medicine, Vienna <i>“Concluding remarks”</i>	
20:00 Invited Speaker Dinner - Heurigen Feuerwehr Wagner, Grinzing Grinzing Str. 53, 1190 Wien	

Meeting Focus

Infectious diseases and cancer have a common ground that we strengthen with a MSc study program Kick-Off meeting entitled “**Key Pathways in Infection and Cancer**”, highlighting the focus of comparative medicine.

Financial Support

We are grateful to our sponsors for financial support towards the scientific programme of this meeting. Without this support the extensive scientific programme would have been difficult to assemble.