



14th International Life Science Meeting

IMC University of Applied Sciences Krems
Campus Krems, Trakt G1, International Meeting Center

April 05 - 06, 2017

Since the beginning of the study program "Medical and Pharmaceutical Biotechnology" in 2002, International Life Science Meetings have been held every year at the IMC University of Applied Sciences Krems. This annual meeting is a well-accepted fantastic opportunity to bring together our students, graduates and team members with representatives and partners from bioscience, medicine and biotech industry in a very fruitful and stimulating atmosphere. Until now more than 200 guest lecturers from 38 countries were involved in the regular bachelor and master study program. Moreover, 300 representatives from science, industry and governmental institutions participated at our annual meetings. One of the highlights were always the lectures of the biophysicist Ivar Giaever, Nobel Laureate from USA.

Our largest conference organized so far was in 2006. The International Nano-Biotechnology Congress about "Scientific and Clinical Applications of Magnetic Carriers" brought together 380 foreign scientists, engineers and clinicians from 43 countries with our 220 biotechnology students.

The 14th International Life Science Meeting will focus on the main topics of the degree programme Medical and Pharmaceutical Biotechnology as well as on our current research topics. Until now governmental projects, EC-grants and collaboration with 18 biotech companies have been completed. The research activities resulted in total funding of around 20 Mio. €. Until now, more than 60 students involved in this projects have finished their bachelor, master or PhD thesis in house. Currently, eleven students and assistants are in PhD-programs.

Meanwhile the Institute of Biotechnology has more than 700 graduates. 40% of them are working in biomedical research fields and 60% in the industrial area. More than 150 graduates are in PhD programs or finished their PhD-thesis in international research- or industrial institutions as Harvard, Cambridge, Oxford, London, Dublin, Stockholm and Groningen or in German and Austrian Universities. Our graduates are in good positions in industry or academia in Austria and world-wide. They are leading R&D teams, managing biotech processes, responsible for quality control or regulatory affairs, scientific marketing or doing research in actual life science fields and publishing results in leading journals such as "Science", "Blood", "Cancer" or the "Journal of Biomolecular Screening".

Our traditional meeting is also a great opportunity to thank our partners and lecturers for their support throughout the last years.

Moreover, we celebrate the annual meetings together with many of our graduates presenting their experiences from exciting projects in biomedical science and industry.

April 05, 2017

Meeting Opening

Room: International Meeting Center, IMC FH Krems

09:00 **Eva Werner, Prof. (FH) Mag.**
Rector of the IMC University of Applied Sciences Krems
H. Hundsberger, Prof.(FH) Dr.
Head of the Institute of Biotechnology, Vice Rector IMC FH Krems

Session: Cancer and Epigenetics in Cancer

Chair: Rita Seeböck, Dr. and Roiß Kerstin

09:25 **DNA-Genetics-Epigenetics: Focusing on Modern Personalized Cancer Research**
R. Seeböck, Dr. DI
IMC FH Krems, Institute of Biotechnology
**Graduate, Lecturer, Project Leader, Supervisor of Bachelor Students*

09:45 **DNA Methylation Status of ABC Transporters and Multidrug Resistance in Cancer**
M. Cichna-Markl, Ao. Univ.-Prof. Dr.
University of Vienna, Institute for Analytical Chemistry
**Supervisor of PhD-Students*

10:05 **The Pathophysiologic Role of the Transcription Factor JunB in Multiple Myeloma**
K. Podar, Priv. Doz. DDr. Mag.
Karl-Landsteiner Medical University, University Hospital Krems
**Research Partner, Lecturer*

Session: Collaborative Cancer Projects IMC Krems & Medical University Vienna

Chair: Birgit Schütz and Nico Jacobi

10:25 **Tumor Associated Macrophages and their Role in Cancer Progression**
B. Schütz, MSc.
Medical University Vienna
**Graduate & PhD candidate*

10:45 **NRF2 and Oxidative Stress in Melanoma-Implementation of an Analytic Platform**
H.-P. Weitzenböck, MSc.
University of Applied Sciences Krems and Medical University Vienna
**Graduate & PhD candidate*

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Unterstützt durch das Technopolprogramm NÖ

11:05 **Role of the HDL Receptor SR-BI in Cancer Progression**
K. Kinslechner, MSc. and M. Mikula, Prof. Dr.
Medical University Vienna
** PTS Coach, PhD Supervisor, R&D Partner*

11:25 **Impact of ER Stress on Melanoma Malignancy**
K. Eigner, MSc. and M. Mikula, Prof. Dr.
Medical University Vienna
**Lecturer, PTS Coach, PhD Supervisor, R&D Partner*

11:45 Lunch Break

Session: Tissue Engineering and Nanotechnology
Chairs: Carlos Semino and Henrieta Papuchova

12:50 **Exploring Physiologic Culture Conditions for Stem Cells**
C. Kasper, Univ.-Prof. Dr.
University of Natural Resources and Life Sciences, Vienna
**Supervisor of Bachelor Students*

13:10 **Nanoinspired Self-Assembling Biomaterials for Applications in Regenerative Medicine**
C. Semino, Univ.-Prof. Dr.
University of Ramon Llull, Barcelona
**Supervisor of Bachelor & Master Students, Lecturer*

13:30 **Cell – Surface Communication – Mediated via Macromolecular Synthetic Membrane Assemblies**
E.C. Sinner, Univ.-Prof. Dr.
University of Natural Resources and Life Sciences, Vienna
**Lecturer*

13:50 **Strategies for Cartilage Regeneration**
A. De-Luna Preitschopf, Dr. and St. Nehrer, Univ. Prof. Dr.
Danube University Krems
**Supervisor of Bachelor & Master Students*

14:10 **Influence of Anticoagulation on Microvesicle Release in Stored Whole Blood**
V. Weber, Univ.-Prof. Dr.
Vice Rector for Research, Danube University Krems and Head, Christian Doppler Laboratory for Innovative Therapy Approaches in Sepsis
**Lecturer, PTS- and PhD-Coach, Employer of IMC-Graduates, R&D Partner*

14:30 Coffee Break

Session: Biotechnology of Microorganisms

Chairs: Barbara Entler and Martin Bürger

- 15:10 **Emerging Fungal Infections: Virulence Factors and Systems Biology of Polyextremophilic Black Fungi**
K. Sterflinger-Gleixner, Univ.-Prof. Dr.
University of Natural Resources and Life Sciences, Vienna
** Lecturer*
- 15:30 **Improving Microalgae for Biotechnology - from Genetics to Synthetic Biology**
K. Bisova, Prof. Dr.
Institute of Microbiology, Czech Academy of Sciences, Trebon
**Research Partner, Supervisor of Master Students*
- 15:50 **Rare Earth Elements and Green Algae – Physiological Effects and Recycling**
M. Vitova, Prof. Dr.
Institute of Microbiology, Czech Academy of Sciences, Trebon
**Research Partner, Lecturer, Supervisor of Master Students*
- 16:10 **Controlled Synthesis of Energy Reserves in Green Algae - from Cell Cycle Regulation to Production**
V. Zachleder, Prof. Dr.
Institute of Microbiology, Czech academy of Sciences, Trebon
**Research Partner, Supervisor of Master Students*
- Session: IMC Collaboration with Slovak University of Technology**
Chairs: Barbara Entler and Bürger Martin
- 16:30 **To Be or not to Be Fat - a Yeast Story**
M. Čertík, Prof. Dr. and Peter Gajdoš, Dr.
Institute of Biotechnology, Faculty of Chemical and Food Technology,
Slovak Univ. of Technology, Bratislava
**Research Partner, Lecturer*
- 16:50 **Glycophenolics - Drugs Inspired by Nature. How can Enzymes Help to Prepare Them**
Vladimír Mastihuba, Dr.
Institute of Chemistry, Slovak Academy of Sciences, Bratislava
**Research Partner, Lecturer*
- 17:10 Coffee Break**

Session: Krems ´s Graduates

Chairs: Bernhard Klausgraber and Böhm Melanie

17:30 **Mechanisms of Aneuploidy - Induced Telomere Replication Stress and Aneuploidy Induced Senescence**

S. Meessen, MSc.

University Hospital, Competence Center for Urology, Ulm

**Graduate & PhD candidate*

17:50 **Synthesis and Biological Activity of Polysialyated Structures in Plants**

S. Kallolimath, MSc.

University of Natural Resources and Life Sciences, Vienna

**Graduates & PhD candidates*

18:10 **Modelling Scale-Up of Preparative Chromatography Columns**

S. Schweiger, Dipl. Ing.

University of Natural Resources and Life Sciences, Vienna

**Graduate & PhD candidate*

19:00 Heuriger Müllner

“Students, Graduates, Lecturers, Coaches and R&D Partners”

April 06, 2017

Room: International Meeting Center, IMC FH Krems

Session: IMC Krems Sultan Qaboos University Collaboration

Chairs: Christian Klein und Leidenfrost Nicoletta

09:00 **New Generation of Antibiotics**

R. J. Abdel-Jalil, Dr. Associate Professor

Department of Chemistry, Sultan Qaboos University of Oman

** R&D Partner, Lecturer*

Session: Emerging Technologies-Optogenetics

Chair: Christian Klein und Leidenfrost Nicoletta

09:20 **Control of Protein Function Through Optochemical Translocation**

H. Engelke, Dr.

Ludwig Maximilians University, Research Group Functional Nanosystems, Munich

**Lecturer*

09:40 **Optogenetics meets HTS: Probing Ion Channel Function With Light**

Viviana Agus, Dr.

AXXAM S.p.A, Cell Biology, Milano

**Lecturer*

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Unterstützt durch das Technopolprogramm NÖ

10:00 **Remote Control of Cellular Signals**
H. Janovjak, Dr. Assistant Prof.
Institute of Science and Technology Austria (IST Austria), Klosterneuburg
**Lecturer*

10:30 Coffee Break

Session: Institute of Chemical, Environmental & Biological Engineering, TU Wien

Chair: Dominik Schild, Lisa Renz

11:00 **Introducing ICEBE of the TU Wien - Selected Projects**
Anton Friedl, Univ.- Prof. Dipl.-Ing. Dr. Tech., Head of the Institute
ICEBE, TU Wien
**Lecturer and Researcher*

11:20 **How Induction Impacts Inclusion Body Properties and Inclusion Body Processing in E. coli**
Oliver Spadiut, Assistant Prof.
ICEBE, Integrated Bioprocess Development, TU Wien
**Lecturer and R&D Partner*

11:50 Round Table Discussion
“Education and Career in Life Science”

Chair: U.Schlokat, CEO and Director of Sentinext Therapeutics
Lecturer, Supervisor of Bachelor and Master Students

Discussion Board:

Gerhard Loeber, Dr. (Boehringer RCV Vienna)
Anton Friedl, Univ. Prof. Dr. (TU Wien)
Brigit Reipert, Hon. Prof. Priv. Doz. Dr. (Shire)
Carlos Semino, Prof. PhD (University of Ramon Llull, Barcelona)
Harald Janovjak, Assistant Prof. Dr. (IST Austria)
Rita Seeböck, Dr., Graduate (IMC Krems)
Katherine Cohen, Dr. (Founding CEO Hookipa, former Sr. Vice. President Intercell)

13:00 Lunch Break

Session: Shire meets IMC FH Krems - Tackling Major Challenges in the Treatment of Hemophilia A

Chair: Anna Traunbauer und Rericha Patrick

14:00 Current Challenges in the Treatment of Hemophilia A
B. Reipert, Hon. Prof. Priv. Doz. Dr.

Head Research Immunology, R&D Shire, Wien

** Lecturer, PTS- and PhD-Coach & Mentor, R&D Partner*

14:20 The Future has begun – Gene Therapy for Treatment of Hemophilia A

A. Gangadharan, Dr.

Senior Scientist, Research Immunology, R&D SHIRE, Wien

** PhD-Coach, R&D Partner*

14:50 Pre-existing Immunogenicity to Viral Vectors– a Major Challenge in Current Gene Therapy Approaches for Hemophilia A and B
A. Kruzik, DI (FH)

Senior Research Specialist, Research Immunology, R&D SHIRE, Wien

**PhD Candidate, R&D Partner*

15:10 Tackling the Unknown – Deciphering Unwanted Immune Responses against FVIII in Patients with Hemophilia A
H. Schweiger, M.Sc

IMC University of Applied Science Krems

**Graduate, PhD Candidate*

15:30 Coffee Break

Session: Pharmaceutical Biotechnology & Technologies

Chair: Dana Mezricky and Untermoser Nicole

16:00 Continuous Manufacturing

C. Tauer, Dr.

Head of Biologics OpU Process Development, SHIRE

**Lecturer*

16:20 Large Scale Cell Culture Facility – A New Biotech Plant in Vienna

G. Loeber, Dr.

Head of Quality Control and Analytical Services, Boehringer Ingelheim RCV GmbH &Co KG, Vienna

**Lecturer, Member Program Development Team,*

16:40 **Glycan Profiling Analysis System Using Lectin Microarrays**

Y. Masao, Dr.

Glycotechnica, Japan

**Lecturer*

17:00 **Application of Lectin Array Technology for Biobetter Characterization**

M. Roucka, DI (FH)

VelaLabs GmbH, Vienna

**Lecturer and Graduate*

17:20 **Metal Enhanced Fluorescence Immunoassays (MEF-FIAs) - A New Tool for High Sensitivity, Single Step Diagnostics**

G. Hawa, Dr. CSO, A. Missbichler, Dr.

FIANOSTICS GmbH, Wiener Neustadt

**Lecturer, Research Partner*

17:40 **Development of an Avian scFv Targeting Dietary Gluten**

F. Forster, Dr. CSO

Sciotec Diagnostics Technologies GmbH, Tulln

**Lecturer, Research Partner*

**17:30 Meeting of the International Scientific Advisory Board
Department of Biotechnology with Graduates**

**18:30 Dinner with the Graduates, Lecturers and Guests
at the "Heuriger Siedler"**

IMC – BioTeam:

H. Hundsberger, A. Eger, B. Entler, D. Mezricky, M. Pflüger, D. Schild, B. Klausgraber, E. Hofmann, C. Klein, R. Klein, N. Jacobi, R. Seeböck, E. Garschall, P. Lang, D. Ripper, A. Stierschneider, S. Winkler, Gabriele Schweiger, C. Wiesner, H.P. Weitzenböck, W. Schütt (em.)

Information:

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**) Partnership of lecturers with students and team of the Department of Biotechnology*