

Program

Cells under Fire – Research in Biochemistry, Biomedicine and Medicinal Chemistry at USP and WWU

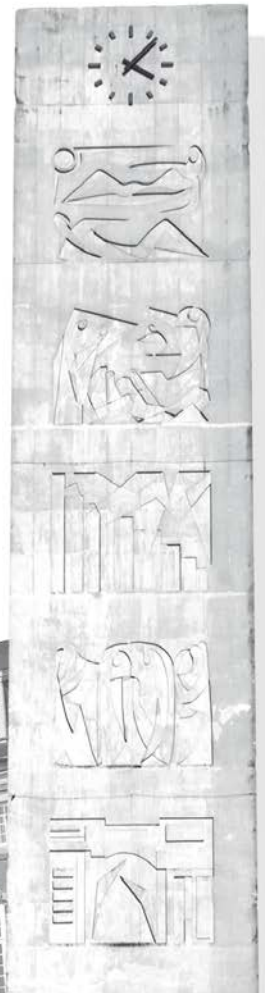


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Topical Focus Neglected Diseases

February 01 – 08, 2020

4th Scientific Workshop
&
Winter School
„Cells under Fire“



Deutscher Akademischer Austausch Dienst
German Academic Exchange Service



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Federal Ministry
of Education
and Research

PharmaCampus WWU – Corrensstraße 48 D-48149 Münster, Germany

Program (Jan. 24, 2020)

Saturday, Feb. 01		
		Afternoon: Arrival of Brazilian participants at Amsterdam Airport Bus transfer to Münster Check in at Hotels
		Short meeting & welcome to Münster

Sunday, Feb. 02		
		Morning: Free time for Brazilian guests
15	:00	Get together – Welcome to Münster program – guided city walk

Monday, Feb. 03 – Day 1		
08	:30	Registration
09	:00	Opening – Greeting addresses by -Rectorate of WWU: Vice rector Prof. Dr. Michael Quante -Faculty of Chemistry and Pharmacy of WWU: Dean Prof. Dr. H.-U. Humpf -Brazil Center WWU: Prof. Dr. B. Hellingrath (Moderation: Prof. Dr. T.J. Schmidt)
	:30	Winter School lecture (1)
10	:00	M. D. Baruffi
	:30	Coffee break & Posters
11	:00	Winter School lecture (2)
	:30	S. Niemann
12	:00	Lunch break
	:30	
13	:00	
	:30	Winter School lecture (3)
14	:00	S. Ludwig
	:30	Winter School lecture (4)
15	:00	J.P. Schatzmann-Peron
	:30	Coffee break & Posters
16	:00	Students'/Post Docs' Lectures (1) "Biochemical/Biomedical Research" M.K. Amstalden/ I. Tozakidis/ L. G. de Oliveira/ R. Birus
	:30	
17	:00	
	:30	
18	:00	End of day 1

Tuesday, Feb. 04 – Day 2		
09	:00	Winter School lecture (5)
	:30	F.B. Da Costa
10	:00	Coffee break & Posters
	:30	Winter School lecture (6)
11	:00	M. T. Pupo
	:30	Lunch break
12	:00	
	:30	
13	:00	Winter School lecture (7)
	:30	U. Karst

14	:00	Winter School lecture (8) F. Herrmann
	:30	
15	:00	Coffee break & Posters
	:30	Students'/Post Docs' Lectures (2) "Natural Products Resarch" I.L.F. Migliorini/ S. Kalinina/ K. T. Yuyama/ F. Lünne
16	:00	
	:30	
17	:00	End of day 2
	:30	
18	:00	
	:30	
19	:00	Social evening in downtown Münster

Wednesday, Feb. 05 – Day 3 (Workshop - Only PIs*)		
10	:00	WWU.USP.ND – Past, present, future T. J. Schmidt
	:30	Discussion – IRTG proposal „Cells under Fire“ – (1) Scientific Part
11	:00	
	:30	(Extended) Lunch break
12	:00	
	:30	
13	:00	
	:30	The Brasil Center at WWU – A. Grecko-Lorenz
14	:00	
	:30	Discussion – IRTG proposal „Cells under Fire“ – (2) Educational Part
15	:00	
	:30	Coffee break
16	:00	Finalization of the IRTG proposal
	:30	
17	:00	Pis' networking – time for discussing cooperations and future projects
	:30	
18	:00	End of day 3

*Brazilian students/post docs: Cultural day with excursion to Cologne

Thursday, Feb. 06 – Day 4		
09	:00	Winter School lecture (9) C. A. Strassert
	:30	
10	:00	Coffee break & Posters
	:30	Winter School lecture (10) G. Trossini
11	:00	
	:30	Winter School lecture (11) O. Koch
12	:00	
	:30	Lunch break
13	:00	
	:30	Winter School lecture (12) I. Carvalho
14	:00	
	:30	Winter School lecture (13) H.-U. Humpf
15	:00	
	:30	Coffee break & Posters
16	:00	
	:30	Students'/Post Docs' Lectures (3) "Medicinal Chemistry Research (A)" F. C. Oliveira/ J. Uth
17	:00	

	:30	End of day 4
18	:00	
	:30	Joint Dinner at Münster Harbor

Friday, Feb. 07 – Day 5		
09	:00	Students'/Post Docs' Lectures (4) "Medicinal Chemistry Research (B)" A.L.S. Novaes/ F. A. Bernal/ D. Kalinin/ O. Korzhenko
	:30	
10	:00	
	:30	
11	:00	Coffee break & Posters
	:30	Winter School lecture (14) J. A. Eble & J. Meißner
12	:00	
	:30	Lunch break
13	:00	
	:30	
14	:00	Winter School lecture (15) B. Wunsch
	:30	
15	:00	Winter School lecture (16) J. Jose
	:30	
16	:00	Coffee break & Posters
	:30	Winter School lecture (17) D. Klostermeier
17	:00	
	:30	Concluding remarks – End of the event
18	:00	End of day 5

Saturday, Feb. 08 – Day 6		
		Departure Brazilian guests Bus transfer to Amsterdam Airport

Winter School lectures

1. Monday, Feb 03, 09:30 – 10:30

Marcelo D. Baruffi (FCFRP USP)

GlycoImmunology: Carbohydrate recognition and its impact on pathological processes

2. Monday, Feb 03, 11:00 – 12:00

Silke Niemann (MedMiBi WWU)

Staphylococcus aureus – an extra- and intracellular pathogen

3. Monday, Feb 03, 13:30 – 14:30

Stephan Ludwig (IMV WWU)

New strategies in antiviral therapy

4. Monday, Feb 03, 14:30 – 15:30

Jean-Pierre Schatzmann-Peron (ICB USP)

Virology and Neuroimmune Interactions: Zika virus pathogenesis and immune response in experimental model

5. Tuesday, Feb 04, 09:00 – 10:00

Fernando B. Da Costa (FCFRP USP)

Phytochemistry and Chemoinformatics: Use of metabolomics and chemoinformatics to investigate plant metabolism and search biologically active compounds

6. Tuesday, Feb 04, 10:30 – 11:30

Monica T. Pupo (FCFRP USP)

Medicinal chemistry of natural products: Chemical signaling in microbial symbionts of tropical insects and natural products discovery.

7. Tuesday, Feb 04, 13:00 – 14:00

Uwe Karst (IAAC WWU)

Mass spectrometry imaging for the pharmaceutical sciences

8. Tuesday, Feb 04, 13:00 – 14:00

Fabian C. Herrmann (IPBP WWU)

From a biological activity to a potential target - How to use ultrastructural Atomic Force Microscopy as a tool to elucidate mechanisms of action

9. Thursday, Feb 06, 09:00 – 10:00

Cristian A. Strassert (IAAC WWU)

Functional coordination compounds for bioimaging and therapy

10. Thursday, Feb 06, 10:30 – 11:30

Gustavo Trossini (FCF USP)

Medicinal chemistry and Chemoinformatics: Computational tools applied in structure based drug design.

11. Thursday, Feb 06, 11:30 – 12:30

Oliver Koch (IPMC WWU)

Computational Molecular Design towards bioactive molecules

12. Thursday, Feb 06, 14:00 – 15:00

Ivone Carvalho (FCFRP USP)

Medicinal chemistry: Chemical modification of natural products

13. Thursday, Feb 06, 15:00 – 16:00

Hans-Ulrich Humpf (LMC WWU)

Molecular biological approaches to elucidate biochemical pathways and to identify new bioactive secondary metabolites from fungi

14. Friday, Feb 07, 11:30 – 12:30

Johannes A. Eble & Juliane Meißner (PhysiolChem WWU)

Reactive Oxygen Species (ROS): their biochemical detection and their consequences on cell attachment

15. Friday, Feb 07, 14:00 – 15:00

Bernhard Wunsch (IPMC WWU)

Imaging of σ_1 receptors in the brain using [^{18}F]labeled PET tracers

16. Friday, Feb 07, 15:00 – 16:00

Joachim Jose (IPMC WWU)

Targeting protein-protein interactions for drug discovery

17. Friday, Feb 07, 16:30 – 17:30

Dagmar Klostermeier (IPC WWU):

Monitoring of and interfering with conformational changes: Towards the identification of conformationally-sensitive inhibitors of DNA topoisomerases

Students' / Post Docs' lectures

Session 1: Biochemical and Biomedical Research

Monday, Feb. 03, 16:00 – 18:00

- Martin Krähenbühl Amstalden (Baruffi group)
Insights into the bactericidal effect of galectin-4 on Escherichia coli O86: functional association with galectin-3 and polymyxin-B via interaction with lipopolysaccharide (LPS)
- Iason Tozakidis (Jose group)
Targeting the outer membrane genesis of Gram-negative bacteria for novel antibiotic agents
- Lilian G. de Oliveira (Schatzmann-Peron group) Bio
The role of TAM receptors, and its ligand, Gas6, in resistance and susceptibility during ZIKV infection
- Robin Birus (Jose group)
Analyzing cellular effects of human protein kinase CK2 inhibitors: uptake, cell proliferation and apoptosis

Session 2: Natural Products Research

Tuesday, Feb. 04, 15:30 – 17:30

- Ivan L. de Freitas Migliorini (Pupo group)
Search for antimicrobial natural products in Streptomyces associated with fungus-growing ants
- Svetlana A. Kalinina (Humpf group)
Claviceps purpurea as a source of novel ergochromes
- Kamila T. Yuyama (Pupo group)
Discovering the potential of the secondary metabolites from Malouetia tamaquarina (Apocynaceae) and its endophytes against neglected tropical diseases

- Friederike Lünne (Humpf group)
Lecanoric acid and ethyl lecanorate – unusual secondary metabolites from Claviceps purpurea

Session 3: Medicinal Chemistry Research (A)

Thursday, Feb. 06, 16:30-17:30

- Filipe C. Oliveira (Carvalho group)
Structural optimization of 1,2,3-triazole benzimidazole prototype with potent trypanocidal activity.
- Jan Uth (Wünsch group)
Synthesis and biological evaluation of natural product-inspired aminolakyl substituted benzopyranols as antimalarial agents

Session 4: Medicinal Chemistry Research (B)

Friday, Feb. 07, 09:00-11:00

- André L. da Silva Novaes (Trossini group)
Artificial intelligence applied to pharmacokinetic parameters prediction.
- Freddy A. Bernal (Schmidt group)
Qualitative and Quantitative Structure-Activity Relationships of 2-phenyl-2,3-dihydrobenzofurans as Leishmanicidal agents
- Dimitrii Kalinin (Wünsch group)
Small molecule inhibitors of human blood coagulation factors: synthesis and biological activity
- Oxana Korzhenko (Karst group)
Electrochemistry/mass spectrometry for the simulation of the metabolism of drugs

List of participants

PIs

WWU:

Prof. Dr. Johannes A. Eble (PhysiolChem WWU)

Dr. Fabian C. Herrmann (IPBP WWU)

Prof. Dr. Hans-Ulrich Humpf (ILMC WWU)

Prof. Dr. Joachim Jose (IPMC WWU)

Prof. Dr. Uwe Karst (IAAC WWU)

Prof. Dr. Dagmar Klostermeier (IPC WWU):

PD. Dr. Oliver Koch (IPMC WWU)

Prof. Dr. Stephan Ludwig (IMV WWU)

Dr. Silke Niemann (MedMiBi WWU)

Prof. Dr. Thomas J. Schmidt (IPBP WWU)

Prof. Dr. Cristian A. Strassert (IAAC WWU)

Prof. Dr. Bernhard Wünsch (IPMC WWU)

USP:

Prof. Dr. Marcelo D. Baruffi (FCFRP USP)

Prof. Dr. Fernando B. Da Costa (FCFRP USP)

Prof. Dr. Monica T. Pupo (FCFRP USP)

Prof. Dr. Ivone Carvalho (FCFRP USP)

Prof. Dr. Gustavo Trossini (FCF USP)

Prof. Dr. Jean-Pierre Schatzmann-Peron (ICB USP)

Students/post docs

WWU:

Dr. Freddy A. Bernal (Schmidt group)

Robin Birus (Jose group)

Nica Classen (Schmidt group)

Daniel Dornbusch (Herrmann group)

Friederike Füsser (Koch group)

Matias Ezequiel Gutierrez-Suburu (Strassert group)

Jana Hirsch (Klostermeier group)

Franziska Jürgens (Schmidt group)
Dr. Dimitrii Kalinin (Wünsch group)
Dr. Svetlana A. Kalinina (Humpf group)
Nicola Knetzger (Herrmann group)
Friederike Lünne (Humpf group)
Juliane Meißner (Eble group)
Oxana Korzhenko (Karst group)
Jampa Stelljes (Klostermeier group)
Lara Szabó (Schmidt group)
Dr. Iasson Tozakidis (Jose group)
Jan Uth (Wünsch group)

USP:

Martin Krähenbühl Amstalden (Baruffi group)
Ivan L. de Freitas Migliorini (Pupo group)
André L. da Silva Novaes (Trossini group)
Filipe C. Oliveira (Carvalho group)
Lilian G. de Oliveira (Schatzmann-Peron group)
Dr. Kamila T. Yuyama (Pupo group)