Immunity meets Complement, Allergy & Infection

Joint Doctoral Retreat & CORVOS Kick-Off 04.01.2020 - 09.01.2020























Saturday 04 January

TRANSFERS

Bus

Innsbruck Clinics: 15:10

(Schöpfstr/Bakery Ruetz)

Bus

Innsbruck Airport: 15:20

LOOK OUT FOR THE HOROS SIGN - AS SEEN ON LAST PAGE!

Address of Venue:

University center Obergurgl, Gaisbergweg 5, A-6456 Obergurgl, www.universitycenter-obergurgl.at, obergurgl@uibk.ac.at +43 512 507 37201

Emergency Mobiles

Marco Grasse: +43 660 713 2418
Reinhard Würzner: +43 650 2009592

Arrival 17:00-18:30 18:30-20:15 DINNER 20:15-20:30 **Opening** Reinhard Würzner, IIT/HOROS/CORVOS & Marco Grasse, HOROS/CORVOS, Innsbruck 20:30-21:45 Aging (Chair: R. Würzner) Aging of the Immune System Erin Naismith, HOROS Alumni, Innsbruck 15min A novel Tfh population accumulates with age and links inflammaging with age-related immune-suppression David Hildeman, IRTG 1911, Cincinatti 45min Regulatory CD8+ HLA-DR+ T cells in old age Franz Melzer, HOROS, Innsbruck 15min

21:45 BAR DISCUSSION & DISCO

Sunday 05 January

08:30-10:00 Blood infections, Kidney

Running in the blood: bacteremia and immune

adherence

30min Admar Verschoor, IRTG1911, Lübeck

Identification of potential factors interfering with molecular diagnostics for bloodstream

infections

15min Silke Huber, HOROS, Innsbruck

Pitfalls in measuring cholesterol efflux

capacity and first results

15min Johanna Schachtl-Rieß, HOROS, Innsbruck

The Role of PCSK9 in Health and Disease

15min Azin Kheirkhah, HOROS, Innsbruck

Long live (with) the telomeres! Association between telomere length and mortality in the

German Chronic Kidney disease study

15min Federica Fazzini, HOROS, Innsbruck

IN PARALELL

CORVOS Topics & Partners I

10:00-10:15 COFFEE BREAK

10:15-11:30 <u>Allergy</u>

Novel regulatory functions of prostaglandins

in the lung

30min Akos Heinemann, MOLIN, Graz

Evaluating monocytes as major prostaglandin

source in lipopolysaccharide-induced

inflammation

15min Sonja Rittchen, MOLIN, Graz

Allergen-specific immunotherapy with apples:

Selected cultivars could be a promising tool

for birch pollen allergy

15min Bettina Nothegger, IIT, Innsbruck

Doctoral college MOLIN

15min Akos Heinemann, MOLIN, Graz

11:30-16:45 Networking in small groups

16:45-17:45 Immunity & Gut microbiota

Ways to influence the microbiome

15min Simon Reider, IIT, Innsbruck

Protective Role of GPX4 in environmentally-

induced colitis

15min Felix Grabherr, IIT, Innsbruck

GPX4 in the homeostasis of metabolic

inflammation

15min Julian Schwärzler, IIT, Innsbruck

Lipid peroxidation drives intestinal

Inflammation

15min Lisa Mayr, IIT, Innsbruck

IN PARALELL

CORVOS Topics & Partners II

17:45-18:30 Complement I

Complement analyses – principles, indications

and interpretations

30min Tom Eirik Mollnes, Oslo

The role of the complement system and

diabetes in invasive candidiasis

15min Verena Harpf, HOROS, Innsbruck

18:30-20:15 DINNER

20:15-21:30 Complement II

Stx2a & Complement

15min Sará Kellnerová, HOROS, Innsbruck

The lectin Pathway – the Swiss army knife of

innate immunity

30min Peter Garred, CORVOS, Copenhagen

MAP-1 interacts with activated factor XII and

attenuates coagulation in vivo

30min Mikkel-Ole Skjodt, Copenhagen

21:30 BAR DISCUSSION & DISCO

Monday 06 January

08:30-10:00 Complement III (Chair: H. Stoiber)

> Non canonical functions of complement in inflammatory diseases

30min Jörg Köhl, IRTG1911, Lübeck

The Role of C5a-mediated Cross-talk between NK Cells and Dendritic Cells in Toxoplasma gondii Infection

Caroline Henning, IRTG1911, Lübeck 15min

> The role of C5a/C5aR1 axis on glycosylation of autoreactive IgG antibodies in Epidermolysis **Bullosa Acquisita (EBA)**

Samyr Kenno, IRTG1911, Lübeck

15min

The role of C5aR2 in pregnancy Christian Karsten, IRTG1911, Lübeck 30min

10:00-10:15 COFFEE BREAK

10:15-11:30 Fungi (Chair: F. Gsaller)

> Resistance to antifungal acting fluoropyrimidines in Aspergillus fumigatus

Enrique Sastre, HOROS, Innsbruck 15min

> Functional analysis of the A. fumigatus ftrA promoter via luciferase reporter assay

Annie Yap, HOROS, Innsbruck 15min

> Molecular characterization of siderophore uptake in Aspergillus fumigatus

Mario Aguiar, HOROS, Innsbruck 15min

15min	Intrinsic azole resistance in mucormycetes Katharina Rosam, IIT, Innsbruck				
15min	The role of HIF-1α in antifungal immunity during infection with <i>Histoplasma capsulatum</i> Tim Quäschling, IRTG1911, Lübeck				
IN PARALELL	CORVOS Topics & Partners III				
11:30-16:45	Networking in small groups				
16:45-18:30	Vaccination & Treatment				
15 min	Vaccination against HPV R. Würzner, IIT/HOROS/CORVOS, Ibk				
30min	Off-label use of eculizumab:clin.experiences Andreas Barrat-Due, Oslo				
15min	Passive and active immune therapy against gram-negative multi-drug resistant bacteria by breaking their immune resistance Vinaya Dulipati, Helsinki				
15min	Antimicrobial proteins and peptides promise the development of effective new drugs Anant Kakar, HOROS, Innsbruck				
15min	Pharmacokinetics of Echinocandins in Wound Secretion Tiziana Gasperetti, IIT, Innsbruck				

Enhancement of complement-dependent cytotoxicity by SCR19-20 of factor H in a

tumor model

15min Lena Prantl. IIT. Innsbruck

18:30-20:15 DINNER

20:15-21:30 Entrepreneurship &

CORVOS Kick off celebration

Eurofins: More than sequencing

Anika Bresk, IIT Alumni, Eurofins 15min

> Non-invasive approaches in treating or diagnosing female and male infertility

Carina Miggitsch, HOROS Alumni 15min

From science to research tool

15min Erik Toonen, Hycult

CORVOS - Kick off celebration 30 min

21:30 **BAR DISCUSSION & DISCO**

	Tuesday 07 January			
08:30-10:00	Intracellular infections			
30min	Hormone-microbiome interactions disturb control of intracellular <i>C. trachomatis</i> infection <i>Jan Rupp, IRTG1911, Lübeck</i>			
30min	Characterization of dendritic cell function during HIV-1/Chlamydia coinfection Wilfried Posch, Innsbruck			
15min	Lipocalin2 versus Calprotectin in Inflammatory Bowel Disease Andreas Zollner, IIT, Innsbruck			
15min	Doctoral college IRTG1911 Jörg Köhl, IRTG1911, Lübeck			
10:00-10:15	COFFEE BREAK			
10:15-11:30	Parasites & Viruses			
30min	How to block the malaria cycle Seppo Meri, CORVOS, Helsinki			
15min	Interaction of Vitronectin with ZIKV Zahra Malekshahi, HOROS, Innsbruck			
30min	Systemic Next generation disease modeling Doris Wilflingseder, CORVOS, Innsbruck			
11:30-17:30	Networking in small groups (HOROS Faculty till 16:30, HOROS-/IIT-Students till 17:00)			

16:30-16:55 HOROS Faculty Member Meeting

17:00-17:25 HOROS Faculty Meeting (with HOROS students)

17:30-18:30 <u>Iron & Immunity</u> (Chair: C. Speth)

Systemic analysis of pathogen specific (intracellular vs. extracellular) regulatory networks of iron homeostasis

15min Alexander Hoffmann, HOROS, Innsbruck

Comparative analysis of pharmacokinetics and therapeutic efficacy of different iron preparations in Anemia of Chronic Disease

(ACD) combined or not with Iron Deficiency Anemia (IDA)

15min Lara Valente de Souza, HOROS, Innsbruck

Mitochondrial function and iron metabolism

15min Christine Fischer, IIT, Innsbruck

Upregulation of interleukin-4 induced Arginase1 leads to a more sufficient infection control in Salmonella Typhimurium infected

macrophages

15min Natascha Brigo, HOROS, Innsbruck

18:30-20:15 DINNER

20:15-21:15 HIV Disease Modelling (Chair: V. Fleischer)

The Role of Corticosteroids on immune cells

within a 3D Lung model

15min Maureen Luvanda, HOROS, Innsbruck

Engineering a human artificial lymph node to dissect host-pathogen interactions: a new approach to investigate HIV transfer 'in vivo'

15min Eliott Lafon, HOROS, Innsbruck

Monitoring HIV-1 infection in a mucosal 3D

model

15min Viktoria Zaderer, IIT, Innsbruck

Aspergillus terreus as a model for studying Amphotericin B resistance, tolerance and

persistence

15min Roya Vahedi, HOROS, Innsbruck

21:15 BAR DISCUSSION & DISCO

Wednesday 08 January

08:30-09:30 Intracellular Bacteria & CORVOS

Pathobiological diversity of Mycobacterium

tuberculosis complex strains

30min Stefan Niemann, CORVOS, Borstel

CORVOS summary, Part I

30 min R. Würzner, IIT/HOROS/CORVOS, Ibk

09:30-09:45 COFFEE BREAK

09:45-10:45 Microbiology in clinical applications

TBA

30 min N.N.

TBA

30 min N.N.

IN PARALELL

CORVOS Topics & Partners IV

10:45-15:45 Networking in small groups

15:45-18:30 Aprés Ski Nederhütte

19:00-21:00 DINNER

Thursday 09 January

08:15-08:45 CORVOS summary, Part II

R. Würzner, HOROS/CORVOS, Ibk

09:00 Departure of bus to Ötztal Bhf.

(will approx. arrive around 10.00)

and further to airport

(will approx. arrive around 10:50) and

further to clinics

(will approx. arrive around 11:00)

Contact:

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Participating Universities:

Medical University Innsbruck University of Innsbruck Medical University of Graz University of Lübeck University of Oslo University of Helsinki University of Copenhagen

Doctoral Programs:

HOROS HOst Response in Opportunistic infectionS

(Innsbruck)

CORVOS Complement Regulation and Variations in

Opportunistic infectionS (Innsbruck, Lübeck, Oslo,

Copenhagen, Helsinki, et al.)

IIT Infection, Immunity & Transplantation

(Innsbruck)

MCBO Molecular Cell Biology and Oncology

(Innsbruck)

MOLIN MOLecular fundamentals of INflammation

(Graz)

IRTG 1911 Immunoregulation of inflammation in allergy and

infection (Lübeck)

