



Program 2nd Symposium

Manchot Graduate School 'Molecules of Infection IV'

26.04. – 28.04.2023
at Hotel Mutterhaus in Düsseldorf

1 st Day		Chairs
14:00-14.30	Arrival and registration	
14:30-14:45	Welcome addresses <i>Prof. Johannes H. Hegemann and Prof. Klaus Pfeffer</i>	
Manchot Lecture in Infection Biology		
14:45-15:45	An RNA-centric view on gut Bacteroides <i>Jun. Prof. Dr. Alexander Westermann</i> <i>Junior Group Leader, Helmholtz Institute for RNA-based Infection Research, Würzburg</i>	Lea Geißl
15:45 - 16:15 Coffee break		
Control of Immune Responses to Infection		
16:15-16:35	P16: The functional role of Tspan2 in anti-infectious immune responses <i>Marcel Marson</i>	Philipp Lang
16:35-16:55	P12: Functional analysis of lymphotoxin β receptor dependent effector mechanisms during the immune response against intracellular pathogens <i>Marcel Helle</i>	
16:55-17:15	P18: Glycosylation of LCMV glycoprotein and its effect on immune response <i>Harry Ward</i>	
17:15-17:35	P14: The Role of the Aryl hydrocarbon Receptor in Immune Response to <i>Salmonella</i> Infection and Tuft Cell-mediated Immunity to Helminths <i>Michelle Mayer</i>	
17:35 - 18:00 Bio break		
18:00-18:30	iSAB meeting with PhD students group 1 (Caroline Fliedner large hall)	
18:30-19:00	iSAB meeting (Caroline Fliedner large hall)	
19:00 Dinner		



2 nd Day		Chairs
Control of Immune Responses to Infection		
08:30-08:50	P15: Monocyte immunopathology in human Tuberculosis disease is induced by plasma milieu <i>Hubert Senanu Ahor</i>	Ingo Drexler
08:50-09:10	P17: Molecular and Functional Characterization of Vaccinia Virus-encoded Inhibitors of Autophagy <i>Angelina Markshausen</i>	
09:10-09:30	P13: Analysis of host-pathogen interactions through single-cell RNA sequencing of Toxoplasma-infected cells <i>Yomna Gohar</i>	
09:30 - 10:00 Coffee break		
Bacterial Proteins in Infection and Infection Control		
10:00-10:20	P6: The chlamydial membrane targeting effector protein SemD acts as recruiting platform for host endocytosis proteins <i>Fabienne Kocher</i>	Eva Nowack
10:20-10:40	P8: Novel oxidoreductases from <i>Pseudomonas aeruginosa</i> <i>Sajedeh Mirshahvalad</i>	
10:40-11:00	P9: Molecular mechanisms of host-endosymbiont interactions-subcellular localization and cellular functions of the endosymbiont-targeted proteins in <i>Angomonas deanei</i> <i>Anay Kumar Maurya</i>	
11:00 - 12:30 Poster session No. 1		
12:30 - 14:00 Lunch Break		
14:00-14:20	K2: Exploring mechanisms establishing nuclear control over gene expression in a bacterial endosymbiont in the amoeba <i>Paulinella chromatophora</i> <i>Tobias Spiegl</i>	Lutz Schmitt
14:20-14:40	P5: MbxA: A novel RTX toxin that shows cytotoxicity against human cells <i>Feby Chacko</i>	
14:40-15:00	P7: Characterization of novel antibacterial lead structures against <i>Mycobacterium tuberculosis</i> H37Rv: α -aminooxyacetic acid derivatives and homoBacPROTACs <i>Kristin Schwechel</i>	
15:00 - 15:15 Coffee		
15:15 - 16:45 Poster session No. 2		
16:45-17:15	<i>iSAB meeting with PhD students group 2 (Caroline Fliedner large hall)</i>	
17:30-18:00	PhD students meeting with external speaker (<i>Kleiner Saal</i>)	
17:30-18:00	<i>MOI IV board meeting (Caroline Fliedner large hall)</i>	
17:30-18:00	<i>iSAB meeting (Conference room 4 Salon Luise Fliedner)</i>	
18:30 Dinner at „Zum Einhorn“ Kaiserswerth		



3 rd Day		Chairs
Molecular Regulatory Mechanisms in Fungi		
08:45-09:05	P10: Inositol pyrophosphate-controlled polyphosphate generation and its role in the fungal cell cycle <i>Sarune Daunaraviciute</i>	Ursula Fleig
09:05-09:25	P11: The RNA-binding protein Khd4 has a central regulatory function during pathogenic development in the corn smut fungus <i>U. maydis</i> <i>Lea Geißl</i>	
09:25-09:45	K1: The <i>C. pneumoniae</i> TarP family member CPn0572 modulates both the actin- and microtubule-cytoskeleton for successful infection <i>Mona Höhler</i>	
09:45 - 10:15 Coffee break		
Mechanisms of Viral Infection		
10:15-10:35	P3: Interference of HCV with chemokine mediated intercellular communication processes of the host <i>Tobias Hustedt</i>	Jörg Timm
10:35-10:55	P4: Loss of Hepatitis B Virus HBeAg contributes to immune escape from CD8+ T cells directed against the core-protein <i>Maximilian Damagnez</i>	
10:55-11:15	P1: Inducing Rev-independent nuclear export of unspliced and intron containing HIV-1 mRNAs via HEXplorer algorithm guided mutation <i>Anastasia Ritchie</i>	
11:15-11:30	Summary, Outlook and Goodbye <i>Prof. Johannes H. Hegemann and Prof. Klaus Pfeffer</i>	
11:30 - 12:30 Lunch and Farewell		
12:30-13:00	Final Meeting iSAB (Conference room 4 Salon Luise Fliedner)	
13:00-13:45	Meeting iSAB + Speakers MOI (Conference room 4 Salon Luise Fliedner)	
13:45 End		

Poster session Group 1 - Thursday Apr 27, from 11.00 a.m. to 12.30 p.m.
Annotation:

Topics of the Manchot Graduate School „Molecules of Infection IV“:

Mechanisms of viral infection	Bacterial proteins in infection and infection control	Molecular regulatory mechanisms in fungi	Control of immune responses to infection
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Project number	MOI IV Doctoral researcher	Poster title	Name of PI	First Reviewer	Second Reviewer
P5	<i>Feby Chacko</i>	MbxA: A novel RTX toxin that shows cytotoxicity against human cells	Lutz Schmitt	Joanne Engel	Klaus Strebel
P6	<i>Fabienne Kocher</i>	Characterization of human receptor(s) interacting with <i>Chlamydia trachomatis</i> PmpD	Johannes H. Hegemann	Joanne Engel	Klaus Strebel
P8	<i>Sajedeh Mirshahvalad</i>	Novel oxidoreductases from <i>Pseudomonas aeruginosa</i>	Karl-Erich Jäger / Filip Kovacic	Joanne Engel	Alistair Brown
P10	<i>Sarune Daunaraviciute</i>	Inositol pyrophosphate-controlled polyphosphate generation and its role in the fungal cell cycle	Ursula Fleig	Alistair Brown	Joanne Engel
K1	<i>Mona Höhler</i>	The <i>C. pneumoniae</i> TarP family member CPn0572 modulates both the actin- and microtubule-cytoskeleton for successful infection	Ursula Fleig	Alistair Brown	Joanne Engel
P12	<i>Marcel Helle</i>	Role of lymphotoxin β receptor signaling during B cell mediated protection against <i>Toxoplasma gondii</i>	Klaus Pfeffer	Carl Ware	Klaus Strebel
P13	<i>Yomna Gohar</i>	Analysis of host-pathogen interactions through single-cell RNA sequencing of Toxoplasma-infected cells	Alexander Diltthey	Carl Ware	Alistair Brown
P14	<i>Michelle Mayer</i>	The Role of the Aryl hydrocarbon Receptor in Immune Response to Salmonella Infection and Tuft Cell-mediated Immunity to Helminths	Irmgard Förster	Carl Ware	Joanne Engel
P17	<i>Angelina Markshausen</i>	Molecular and Functional Characterization of Vaccinia Virus-encoded Inhibitors of Autophagy	Ingo Drexler	Carl Ware	Klaus Strebel


Poster session Group 2 - Thursday Apr 27, from 3.15 p.m. to 4.45 p.m.

Project number	MOI IV Doctoral researcher	Poster title	Name of PI	First Reviewer	Second Reviewer
P1	<i>Anastasia Ritchie</i>	Inducing Rev-independent nuclear export of unspliced and intron containing HIV-1 mRNAs via HEXplorer algorithm guided mutation	Heiner Schaal	Klaus Strebel	Carl Ware
P3	<i>Tobias Hustedt</i>	Interference of HCV with chemokine mediated intercellular communication processes of the host	Johannes Bode	Klaus Strebel	Carl Ware
P4	<i>Maximilian Damagnez</i>	Loss of Hepatitis B Virus HBeAg contributes to immune escape from CD8 ⁺ T cells directed against the core-protein	Jörg Timm	Klaus Strebel	Alistair Brown
P7	<i>Kristin Schwechel</i>	Characterization of novel antibacterial lead structures against <i>Mycobacterium tuberculosis</i> H37Rv: α -aminooxyacetic acid derivatives and homoBacPROTACs	Rainer Kalscheuer	Joanne Engel	Alistair Brown
P9	<i>Anay Kumar Maurya</i>	Molecular mechanisms of host-endosymbiont interactions- subcellular localization and cellular functions of the endosymbiont-targeted proteins in <i>Angomonas deanei</i>	Eva Nowack	Joanne Engel	Alistair Brown
K2	<i>Tobias Spiegl</i>	Exploring mechanisms establishing nuclear control over gene expression in a bacterial endosymbiont in the amoeba <i>Paulinella chromatophora</i>	Eva Nowack	Joanne Engel	Alistair Brown
P11	<i>Lea Geißl</i>	Insights in the regulatory function of the RNA-binding protein Khd4 during <i>U. maydis</i> infection	Michael Feldbrügge	Alistair Brown	Joanne Engel
P15	<i>Hubert Senanu Ahor</i>	Monocyte immunopathology in human tuberculosis: The role of plasma milieu	Marc Jacobsen	Carl Ware	Joanne Engel
P16	<i>Marcel Marson</i>	Investigation of Tspan2 expression pattern and its impact on function in murine neutrophils	Stefanie Scheu	Carl Ware	Klaus Strebel
P18	<i>Harry Ward</i>	Glycosylation of LCMV glycoprotein and its effect on immune response	Philipp Lang	Carl Ware	Klaus Strebel