



Deutsche Gesellschaft für Parasitologie



Second Announcement

18th Drug Design & Development Seminar (DDDS) 2017 **of the German Society for Parasitology (DGP)**

Date: March 30th – 31st, 2017

Venue: Research Center Borstel (Hamburg)

You are cordially invited to participate and to present your research and data in **an oral presentation (15 minutes) or as poster**. An abstract is requested for both, talks and posters. For abstract preparation guidance see below. A scientific board will select the topics for oral presentations depending on the abstracts. In addition, invited international scientists will present their specific topics in respective keynote lectures.

Deadline for registration and abstract submission is January 31st, 2017

Venue:

Research Center Borstel (close to Hamburg)
Leibniz-Center for Medicine and Biosciences
Parkallee 1-40
23845 Borstel
<http://www.fz-borstel.de>

Invited Keynote Lectures:

Dr. Collette Britton

“Parasitic helminth small RNAs: regulators of development, host-parasite interactions and as potential therapeutic targets”

Institute of Biodiversity, Animal Health and Comparative Medicine
College of Medical, Veterinary and Life Sciences
University of Glasgow, Scotland

Dr. Loïc Le Hire de Fallois

"Antiparasitic drug discovery and research in Animal Health: Overview & development of Afoxolaner isoxazoline"

Head of Pharma Discovery & Research
Merial, Duluth, GA, USA

Prof. Dr. Jeremy C. Mottram

"Targeting cell signalling and proteolysis for trypanosomatid drug discovery"

Chair in Pathogen Biology
Centre for Immunology and Infection
University of York, UK

Prof. Dr. Georg v. Samson-Himmelstjerna

"More complicated than imagined - what mechanisms lead to benzimidazole resistance in helminthes?"

Director of the Institute for Parasitology and Tropical Veterinary Medicine
Freie Universität Berlin, Germany

Prof. Dr. Fiona Tomley

"Coccidiosis in poultry: challenges for disease control in today's global industry"

Head of Pathology and Pathogen Biology
The Royal Veterinary College
University of London, UK

Organizers:

Dr. Sheraz Gul
Fraunhofer IME-SP
Hamburg

Dr. Helmut Haas
helminGuard
Sülfeld

Prof. Dr. Paul M. Selzer
Boehringer Ingelheim Animal Health GmbH
Ingelheim

Dr. Sandra Noack
Boehringer Ingelheim Animal Health GmbH
Ingelheim

About the Drug Design & Development Seminar (DDDS)

The Drug Design & Development Seminar (DDDS) was founded in 1999 as an active working group of the German Society for Parasitology, by Prof. Dr. Peter Köhler (Univ. of Zürich, CH), Prof. Dr. Rolf Walter (BNI, Hamburg, DE), and Prof. Dr. Heiner Schirmer (Univ. of Heidelberg, DE). Since 2004 Prof. Dr. Paul M. Selzer (Boehringer Ingelheim Animal Health, Ingelheim, DE) is the sole coordinator of the DDDS transferring the meeting into an international well recognized scientific forum. Exchange of scientific information about anti-parasitic chemotherapy between universities, industry, and other research organizations continues to be important to accelerate anti-parasitic drug development. The DDDS is open to all scientists and professionals interested in the field of anti-parasitic research. The DDDS aims at connecting human and veterinary health by complementary approaches in medical and veterinary parasitology and medicinal chemistry to aim and stimulate One-Health approaches to combat parasitic diseases. The main topics include but are not limited to:

- Target identification and validation
- Identification of modulators
- Synthesis and optimization of lead compounds towards marketable drugs
- Delivery of active compounds to infected hosts

Recommended Hotels:

- There is no room contingent reserved for this conference. As there are only limited rooms available in these hotels, we recommend booking your room early.
- There will be a complimentary bus shuttle from hotels “Schloß Tremsbüttel” and “TRYP” to the Borstel venue.
- From the hotel “Wilhelm Busch”, the Borstel venue is accessible by public transportation.

TRYP by Wyndham Bad Oldesloe
Sandkamp 12
23843 Bad Oldesloe
<https://www.trypbadoldesloe.com/de>

Schloß Tremsbüttel
Schloßstraße 10
22967 Tremsbüttel
<http://www.tremsbuettel.de/>

Hotel Wilhelm Busch
Segeberger Chaussee 45
Wilhelm-Busch-Platz
22850 Norderstedt
<http://hotel-wilhelm-busch.com/>

Registration & Fees:

Please register via Email using the registration form below. For students, please attach a scan of your student ID or similar confirmation document. After receipt of the registration form, an invoice for the registration fee will be sent to you. Please make sure to make your payment on time to secure your seat!

The registration fee of 60 € for students and 110 € for all others includes the abstract booklet, refreshments & lunches during the whole meeting, conference dinner, and welcome drinks during the welcome reception on the evening of Wednesday March 29th, 2017.

Because there is only limited space available, you should register early!

Attendance Registration Form:

Please email the filled registration form via Email to:

sheraz.gul@ime.fraunhofer.de

In return you will receive an invoice (including all necessary details like bank account, reference, etc.)

Please complete and email to: sheraz.gul@ime.fraunhofer.de

First name			
Last name			
Title		Student? For discount on registration fee please tick here and include confirmation	
Institution			
Address			
City			
Country			
Phone			
Fax			
E-mail			
Signature			
VAT number			
Date			

Deadline for registration and abstract submission is January 31st, 2017

Abstract preparation guideline:

To facilitate preparation of the abstract booklet, please provide the abstract as follows:

- Title, authors, affiliations, email address of corresponding author, abstract text, selected literature citations
- .docx format, Arial font size 11 points, 1.5 fold line spacing
- Maximum of 1 page (180 – 230 words)
- Text format as example below

Abstract example below:

Development and *in vivo* efficacy of biocompatible drug-loaded microspheres against *C. parvum*

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Human cryptosporidiosis is one of the most commonly diagnosed protozoan-associated intestinal diseases worldwide. It is recognized as one of the main causes of diarrhoea in immunocompromised hosts (children, AIDS patients) as an opportunistic pathogen [1]. Up to now, there is no any completely efficient treatment. Based on previous work [2], an alternative therapy against *Cryptosporidium parvum* using bioadhesive Paromomycin and Diloxanide Furoate (DF)-loaded microspheres have been developed. Microspheres (MS) were prepared using chitosan (CHI) and poly(vinyl alcohol) (PVA) and two types of cyclodextrins (β -CD and DM- β -CD) for the potential use of treating cryptosporidiosis. Microparticle formulations were characterized in terms of size, surface charge, drug release and morphology. *In vivo* bioadhesion properties of CHI/PVA microspheres were also evaluated. In addition, the *in vivo* efficacy of CHI/PVA microspheres against *C. parvum* was tested in neonatal mouse model of cryptosporidiosis.

Microspheres prepared by spray-drying showed spherical shape, diameters between 6.67 ± 0.11 and $18.78 \pm 0.07 \mu\text{m}$ and positively surface charged. The bioadhesion studies demonstrated that MS remained attached at +16h (post-infection) to the intestinal cells as detected by fluorescence. The study of efficacy of treatment determined in mice receiving orally administered microspheres with and without drug showed significantly lower parasite loads compared with the control mice.

Our results suggest that microspheres appear to be a safe and simple system to be used in an anticryptosporidial treatment. This work demonstrated the high potential of using bioadhesive chitosan/PVA microspheres for the possible application in the antiparasitic drug delivery by oral route in the treatment or prevention of *C. parvum* infections.

[1] Bouzid, M. et al., 2013. Clin Microbiol Rev. 26, 115–34.

[2] Luzardo-Álvarez, A. et. 2012. Eur. J. Pharm. Sci. 47, 215-227.