



# 24<sup>th</sup> Drug Design & Development Seminar (DDDS) 2024 of the German Society for Parasitology (DGP)

"Combining Efforts towards Human and Animal Parasitic Diseases"

Date: March 13<sup>th</sup> – 15<sup>th</sup>, 2024

Venue: The Biocenter of the University of Würzburg,

Germany

Conference Homepage & Registration: 24th DDDS

On the occasion of the **24<sup>th</sup> DDDS** conference you are cordially invited to participate and to present your research in **an oral presentation (15 minutes) or as poster**. An abstract is requested for both talks and posters (**abstract guideline below**). The scientific board will select the topics for oral presentations or posters depending on the abstracts. Renowned international keynote speakers will provide a high-quality scientific framework. The seminar will be opened with a welcome reception on Tuesday evening and conclude Friday at noon.

Deadline for registration is November 17<sup>th</sup>, 2023

Deadline for abstract submission is December 8<sup>th</sup>, 2023

Please register and submit you abstract here: 24th DDDS

## **Keynote Speakers**

Roger Prichard McGill University, Montreal, Canada

Raffi V. Aronian University of Massachusetts, Worcester, USA

Stephen R. Doyle Wellcome Sanger Institute, Hinxton, Cambridge, UK

Mike Barrett University of Glasgow, UK

Petr Volf Charles University, Prague, Czech Republic

Jennifer Keiser Swiss Tropical and Public Health Institute, Allschwil, Switzerland

Simone Häberlein Justus-Liebig-Universität Giessen, Germany

#### Scientific Board

Prof. Dr. Klaus Brehm University of Würzburg, Germany

Prof. Dr. Markus Engstler University of Würzburg, Germany

Prof. Dr. Paul M. Selzer Boehringer Ingelheim Animal Health Ingelheim am Rhein, Germany

Dr. Sandra Noack Boehringer Ingelheim Animal Health Ingelheim am Rhein, Germany

### Organizer:

German Society for Parasitology & University of Würzburg

### Venue

The Biocenter of the University of Würzburg

Am Hubland

97074 Würzburg

## **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 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, characterization, and validation
- Identification of compounds
- Synthesis and optimization of lead compounds towards marketable drugs
- Testing active compounds in animal models

## **Registration & fees**

The registration fee of 100 € for students\* (incl. PhD students), 170 € for postdocs\*, and 250 € for all others includes the program booklet, refreshments & lunches during the whole meeting, a conference dinner, and a welcome snack as well as drinks during the welcome reception on Tuesday evening, March 12<sup>th</sup>, 2024.

As there is only limited space available, you should register early! Registration: 24th DDDS

## Deadline for registration is November 17th, 2023

## **Program**

The program will be available end of January 2024.

<sup>\*</sup> proof of status needs to be provided on site on request

### **Abstract submission**

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

- Title, authors, affiliations, E-mail address of corresponding author, abstract text, selected literature citations
- .docx format, Arial font size 11 points, 1.5-fold line spacing
- Maximum: 1 page (A4 size)
- Maximum: 220 words
- References, if appropriate/needed
- Text format example below

In case these guidelines are disregarded, the Scientific Committee reserves the right to return inadequate abstracts to the sender for correction. Keep deadlines in mind, as the selection of topics for presentation will be based on correct abstracts only!

## Deadline for abstract submission is December 8th, 2023

All correspondence regarding this submission will be sent to you as the submitter. It is your responsibility to communicate this information to any additional authors.

All accepted abstracts will be published in our conference brochure unless you object to this at the time of submission.

## Abstract example:

# 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 one of the main causes of diarrhoe in immunocompromised hosts [1]. There is no completely efficient treatment. Based on previous work [2], an alternative therapy against *Cryptosporidium parvum* using bioadhesive Paromomycin and Diloxanide Furoate (DF)-loaded microspheres was 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 potential use. 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  $6.67 \pm 0.11$  and  $18.78 \pm 0.07$  µm and positively surface charge. The bioadhesion studies demonstrated that MS remained attached at +16h (post-infection) to the intestinal cells. The efficacy of treatment determined in mice receiving orally administered microspheres with and without drug showed significantly lower parasite loads compared with the control.

Our results suggest that microspheres are safe and simple systems for anticryptosporidial treatment. This work demonstrated the high potential of using bioadhesive chitosan/PVA microspheres for 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.

#### Accommodation

We have blocked rooms with the keyword "DDDS" at the following hotels. Please book your room early, as rooms are limited!

Best Western Premier Hotel Rebstock https://www.rebstock.com/

Neubaustraße 7 97070 Würzburg

Phone: +49 931 30930

E-mail: rebstock@rebstock.com

City Partner Hotel Strauss https://www.hotel-strauss.de/ Juliuspromenade 5 97070 Würzburg

Phone: +49 931 30570

E-mail: anfrage@hotel-strauss.de

Hotel Vier Jahreszeiten

https://vierjahreszeiten-wuerzburg.de/

Haugerpfarrgasse 3 97070 Würzburg Phone: +49 931 53815

E-Mail: info@vierjahreszeiten-wuerzburg.de

Motel One

https://www.motel-one.com/de/hotels/wuerzburg/

Paradeplatz 4 97070 Würzburg

Phone: +49 931 7304960

E-Mail: wuerzburg@motel-one.com

## **Funding / Sponsoring**

We would like to thank the sponsors of the 24<sup>th</sup> Drug Design & Development Seminar of the German Society for Parasitology (DGP) for their support:

## **Boehringer Ingelheim Vetmedica GmbH**

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www.boehringer-ingelheim.de



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