International Research Conference on Protein Stability and Interactions

April 1 -2, 2019 Heidelberg, Germany



Protein-excipient Interactions and Protein-Protein Interactions in formulation



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About PIPPI

Protein - protein interactions are key for various critical phenomena in protein formulation including opalescence, phase separation, high viscosity and protein aggregation. There is still a lack of knowledge to bridge protein structure and formulation conditions with physical stability. Researchers from different areas of industry and academia converge to discuss critical aspects and new developments in our understanding of formulations related protein – protein interactions. Networking and information exchange are enhanced by a relaxed setting and focused fellowship. The EU-ITN PIPPI forms the seed for this conference.

Programme

Monday April 1, 2019

Welcome and Introduction Gerhard Winter, PIPPI Pernille Harris

Session 1: Protein formulation

Interactions of stabilizing excipients with proteins in aqueous solution, during freezing and during dehydration - If you don't know about the Timasheff mechanism, you don't know anything of importance for protein formulation Invited Speaker: John Carpenter – University of Colorado

Short Lectures:

A formulation study of Antibody drug conjugates Maria-Laura Greco / Shahid Uddin –

Medimmune

Interfacial activity of monoclonal antibodies and its impact on formulation stability Inas El Bialy / Wolfgang Friess - University of München

Session 2: Structural Biology

Interactions in high concentration, complex solutions Invited Speaker: Tom Laue – University of New Hampshire

Short Lectures:

Using NMR in biopharmaceutical formulation Matja Zalar / Alexander Golovanov – University of Manchester

Structure and stability of multidomain proteins Alina Kulakova / Pernille Harris - Technical University of Denmark

Short Lecture selected from abstracs

Session 3: Protein Stability

Experimental and simulated protein-protein interactions and challenges in predicting stability and solution viscosity Invited Speaker: Chris Roberts – University of Delaware

Short Lectures:

Formulation of therapeutic proteins - Connecting protein unfolding, refolding, aggregation and longterm storage stability Hristo Svilenov / Gerhard Winter – University of München

Characterization of weak and strong interactions of Monoclonal antibodies in concentrated solutions Sujata Mahapatra / Werner Streicher – Novozymes

Session 4: Protein Data Analytics

Automated formulation development of novel complex protein formats Invited Speaker: Sven Amrhein – Roche, Basel

Short Lectures:

Chemometrics in protein formulation Dillen Augustijn, University of Copenhagen, Department of Food Science (Supervisor: Dr. Åsmund Rinnan)

Predicting and evaluating the stability of therapeutic protein formulation by light scattering and machine learning

Lorenzo Gentiluomo / Dierk Roessner - Wyatt Technology Europe

Conference Dinner in the old town of Heidelberg

Programme

Tuesday April 2, 2019

Session 5: Computational Protein Modelling

Rational design of antibodies targeting specific epitopes within intrinsically disordered proteins Invited Speaker: Michele Vendruscolo, University of Cambridge

Short Lectures:

Computational predictions to aid formulation of biologics Sowmya Indrakumar/ Günther Peters - Technical University of Denmark

Combining models and experiments for proteinprotein interactions in solutions Marco Polimeni/ Mikael Lund - Lund University

Structure based excipient discovery Andreas Tosstorff / Gerhard Winter - Ludwig-Maximilians-

Universität München

Session 6: Protein Interactions

Invited Speaker: Per Olof Wahlund - Novo Nordisk

Short Lectures:

Effects of macrocycles on solution behaviour of biologics Marcello Morales/ Chris van de Walle – Medimmune

Understanding concentrated protein solution behaviour using dilute solution rheology and light scattering Aisling Roche/ Robin Curtis - University of Manchester

Biophysical formulation studies on an anti microbial peptide Christin Pohl / Allan Nørgaard – Novozymes

Short Lecture selected from abstracs

Session 7: New Frontiers

Microfluidic technology and liquid-liquid phase separation for the analysis and development of protein formulations Invited Speaker: Paolo Arosio, ETH Zürich

Short Lectures:

Modelling of effects salting in and salting out effects using a framework of all-atomic MD and course grained MC simulation Stefan Hervo Hansen / Mikael Lund, Lund University

Short Lecture selected from abstracs

Short Lecture selected from abstracs

Closing remarks - End of conference

Order of sessions can be changed.

Registration by fax +49 6131 97 69 69 or by email apv@apv-mainz.de



Location		Registration fee	•	Registration	Hotelreservation
Marsilius Kolleg Im Neuenheimer Feld 130 69120 Heidelberg Germany	1.1	Industry Authority/University Students*	600 EUR 400 EUR 250 EUR	APV-Geschäftsstelle Kurfürstenstraße 59 55118 Mainz/Germany Phone: 0049 6131 97 69 0	Leonardo Hotel Heidelberg City Center Bergheimer Str. 63, 69115 Heidelberg res.southwest@leonardo-hotels.com
http://www.marsilius-kolleg.uni- heidelberg.de/index-en.html		(free of VAT according UStG)	to § 4,22	Finite 0049 6131 97 69 69 Fax: 0049 6131 97 69 69 E-mail: apv@apv-mainz.de Web: www.apv-mainz.de	breakfast from 109,00 € per night. Deadline for rate is 15 February 2019.
.		Coffee breaks, luncheon, dinner and electronic proceedings included.		You will receive a confirmation of your registration with the invoice.	Vangerowstraße 16,9115 Heidelberg reservation.heidelberg@marriott.com
Date		* Limited places for full tir	ne students		Special rate: Single room incl.
Course no.: 6777 from 01 April 2019 to 02 April 2019	08:30 h 16:00 h	available; written evidence must be submitted.			breakfast from 169,00 € per night. Deadline for rate is 15 February 2019.
					Participants should make their own hotel reservation referring to the APV seminar.

International Research Conference on Protein Stability and Interactions, 1 -2 Apr. 2019, Heidelberg, Course no. 6777

Registration

Registration As soon as you have found a seminar of your interest, it is very easy to register for it via fax, e-mail or online. We will process your registration promptly and certainly are available for any questions that may arise.	Title, first name, last name *				
Registration confirmation After your registration was successfully processed, you will receive a confirmation.	Company name *				
Before the event A few days before the event starts, you will receive important information about the seminar, such as time, date, addresses etc.	Street/no. or P.O. box * Location				
After the event You will receive a certificate confirming your participation. Furthermore, we would like to ask you to fill-in our evaluation sheet to make sure we get	Zip-code and city * Phone				
better every time. Follow-up After the event, we are open to receive any suggestions	E-mail-address participant *				
and critique that might arise during the seminar and will certainly help you with further questions you may have.	Order no. and/or billing address				
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