



Vaccines and Biologics

Development, Scale Up and Manufacturing

Dessau-Roßlau (near Leipzig), Germany 22 – 23 November 2011

HIGHLIGHTS:

- Regulatory Requirements
- Inspection and Findings
- Challenges in Development of Biologics
- Disposable Manufacturing Processes
- Optimising of Development Processes

AUTHORITY SPEAKERS:

DR STEFFEN GROSS

Paul-Ehrlich-Institut, Federal Institute for Vaccines and Biologics, Germany

DR DANIEL MÜLLER

GMP Inspectorate Tübingen Germany

INDUSTRY SPEAKERS:

DR SVEN DEUTSCHMANN

Roche Diagnostics, Germany

DR KARLHEINZ ENSSLE

CSL Behring, Germany

DR MARKUS FIDO

Vela Laboratory, Austria

DR ANDREAS NEUBERT

IDT, Germany

ALAIN PRALONG

Pharma-Consulting ENABLE, Switzerland

PETER LASHLEY

Sanofi Pasteur, Canada



Vaccines and Biologics

Dessau (near Leipzig), Germany, 22-23 November 2011

Objectives

During this two day conference, you will become acquainted with examples and strategies for developing, transferring and manufacturing Vaccines and Biologics. Experts from authorities and industry will give you an insight view in their experience with optimising development processes, regulatory requirements and possible pitfalls.

The site visit at IDT's manufacturing site will close the gap between theoretical background and practical implementation.

Background

The way from product development to manufacturing of Biopharmaceuticals, Biosimilars and Biologics is complex, time-consuming and risky. The product development business is expected to provide long-term revenues, which could be significant for blockbusters on the market, even for Biopharmaceuticals. Especially the pharmaceutical industry's strategy to retreat operationally from this market segment should encourage small and mid-sized bio-pharmaceutical companies to look for convincing and profitable product candidates.

Furthermore, this development provides contract manufacturers with good prospects for developing and manufacturing biological products. The time aspect should not be under-estimated – 8-12 years from the beginning to product launch is a general rule.

What are the possibilities to speed up and optimise the process of development to manufacturing? Do modern methods in analysis and microbiology provide the chance to save time and costs? Further, are QbD and Process Validation benefits or constraints?

This conference will help to find answers.

Target Audience

Responsible authorities and associates of biopharmaceutical companies and vaccine manufacturers who are involved in

- Product development
- Process development
- Scale Up and Manufacturing of Biologics
- Analytical Contract Laboratories

Moderators

Axel H. Schroeder, *Concept Heidelberg* Dr Andreas Neubert, *IDT Biologika*

Conference Folder

You cannot take part in this event? Just order the documentation at the price of € 180.-+ VAT + postage and packing. You can use the registration form for this purpose. Please note: In order to ensure that the documentation is complete, the conference folder will not be available until two weeks after the event.

Programme

Process Development for Biologicals - Major Challenges, Tools and Solutions

- Process development approaches
- Variability of biological manufacturing processes
- Process understanding the major goal to meet future cGMP regulations

DR ANDREAS NEUBERT, IDT Biologika

Development of Disposable Manufacturing Processes

- History of Development
- How disposable technology changes the manufacturing
- Setup in USP and DSP
- Impact of disposable technology on timelines, CAPEX and COGS Crucell's experience
- Remaining challenges in USP and DSP for disposable technology

ALAIN PRALONG, Pharma-Consutling ENABLE

Inspections and Authorisation for Manufacturing of Biologicals – Trends and Future (Regulatory View)

- Cmc Challenges Encountered During Life Cycle Management
- Considerations for design of control strategy and regulatory perspectives
- Process Improvements under the "QbD" Paradigm
- Regulatory perspectives on 'Post-approval change management protocols
- Minor Process Changes Leading to Major Product Changes

DR STEFFEN GROSS, Paul-Ehrlich-Institut

Evolution of Product Development during Clinical Trial Phases – Industry Perspective

- Requirements for preclinical process development activities
- Process validation
- Scale-up for commercial production

PETER LASHLEY, Sanofi Pasteur

90 years IDT Biologika Introduction Site Visit

- 90 years of development and manufacturing of biologicals in Dessau
- IDT Biologika today
- Future targets

DR ANDREAS NEUBERT, IDT Biologika

Process Validation - how does that match with Product and Process Development

- Risk assessment and small scale studies as a prerequisite for range finding and process validation
- Process validation at full scale and small scale
- Development of equipment cleaning process

DR KARLHEINZ ENSSLE, CSL Behring

Inspection - GMP at manufacturing sites of biologics

- Important Regulatory Documents
- Update Annex 2
- Hot topics during Inspections
- Examples of observations

DR DANIEL MÜLLER, GMP Inspectorate Tübingen

How to characterize a complex Molecule – Proteins and Vaccines? Analytics between Method Development and Validation

- Analytical methods for Biologics and Biosimilars
- Challenges during analysis of proteins
- Method parameters, specifications and acceptance criteria
- Stability studies and product release

DR MARKUS FIDO, Vela Laboratory

May Rapid Microbiological Methods Speed up Process Development and Process Validation

- Applications for Alternative Microbiological Methods
- Applications for Alternative Molecular-based Methods

DR SVEN DEUTSCHMANN, Roche Diagnostics

Programme (cont.)

Site Visit at IDT Biologika

On the second day, we are pleased to invite you to a site vist at the IDT Manufacturing site in Dessau.



Image: IDT Biologik

IDT Biologika GmbH is an innovative, privately-held company with 90 years of experience in researching, developing, manufacturing and marketing of biologics. The company focuses on three core areas – animal health, human vaccines, and pharmaceuticals: For veterinary markets, IDT Biologika manufactures and markets a comprehensive range of high-quality vaccines and other products for animal health. For vaccines, IDT Biologika offers development services and manufacturing facilities for clinical phase I to III as well as commercial supplies for leading edge viral and bacterial human vaccines, addressing health issues such as tuberculosis, AIDS, malaria and pox. For pharmaceutical markets, IDT Biologika specializes in the development and manufacture of sterile liquid drugs, providing fully-integrated services ranging from formulation development and clinical manufacturing through to large-scale production, packaging and quality control.

The company has experience in technically sophisticated projects, such as innovative biopharmaceuticals and lyophilized compounds, in EMEA- and FDA-inspected facilities, most of which have been built within the last five years. IDT Biologika is a member of the Klocke Group. With more than 1300 employees at six locations worldwide the Klocke Group has been offering its customers a complete range of services for contract manufacture and contract packaging, from development, production and filling through to the development of customised packaging methods and packing for more than 40 years. The Group also has extensive experience in contract manufacturing of solid dosage forms and cytostatics.

Social Event



On 22 November you are cordially invited to a social event. This is an excellent opportunity to share your experiences with colleagues from other companies in a relaxed atmosphere.

Speakers

DR SVEN M. DEUTSCHMANN, Roche Diagnostics GmbH, Germany

Sven is Director of the Microbiology QC Department in the Pharma Division at Roche Diagnostics GmbH. He is member of the German Pharmacopoeia Commission, the Microbiology Committee and the Working Party "Pyrogentests" of the German Pharmacopoeia Commissions as well as member in the Working Parties "Monocyte Activation Test", "Bacterial Endotoxins", "Mycoplasmas" and "Alternative Methods for the Control of Microbiological Quality" of the European Pharmacopoeia Commissions. In 2009 he was appointed as commissioner of the Central Commission for Biological Safety, a brains trust of the Federal Office of Consumer Protection and Food Safety. In addition, he is member of the PDA "Mycoplasma Task Force" and chairman of the advisory board of the ECA "Rapid Microbiological Methods Working Group".

Speakers (cont.)

DR KARLHEINZ ENSSLE, CSL Behring GmbH, Marburg, Germany

Dr Karlheinz Enssle is responsible for e.g. validation of development products with recombinant proteins at CSL Behring in Marburg, Germany. He studied Biology and Chemistry (doctoral thesis in Immunology and Virology). After eight years in research of former Behringwerke AG (e.g. development of recombinant products) he worked as a head of quality control labs and as qualified person with Chiron Behring before joining process evaluation and validation of Aventis Behring (now CSL Behring).

DR MARKUS FIDO, Vela, Austria

Markus Fido is CEO and Founder of Vela Laboratories, were he is responsible for Finance & Controlling Regulatory Affairs & Quality Operations. Before that he was Head Quality Control at Igeneon / Aphton Biopharma AG where he was in charge for all QC aspects of pre-clinical and clinical projects such as stability studies, specifications, method validation, and product release. Prior he was working as a Group Leader of Immunology and Product Development at Biomin GmbH, Head Biochemical Control at Baxter AG and Head Quality Operations at Octapharma GmbH. His focus is GMP/GCP concerns during the development of Biopharmaceuticals, Biosimilars and Biologics. He holds a Ph.D. in biochemistry and molecular microbiology from the Technical University in Graz (Austria).

DR STEFFEN GROSS,

Paul-Ehrlich-Institut, Federal Institute for Vaccines and Biologics, Germany

From 1990-1995, Friedrich-Schiller- University Jena, Germany, study in Biology . 1995-1998, Max Planck Research Unit Molecular Cell Biology Jena, Germany, Pursuing a Ph.D. degree (1998), "The PDGF-receptor directed protein tyrosine phosphatases in cell signaling pathways". 1998-2001 Institute of Cellular Signaling, University Nijmegen, The Netherlands, postdoctoral position, "Characterization of IA-2/IA-2 two phosphatase-like proteins identified as major auto antigens in diabetes mellitus", during this time several month working visit at the NIH, Bethesda, Maryland, USA. 2001-2005 Institute for Biochemistry II, University of Frankfurt, Germany, Research group leader: "Regulation of the NO receptor soluble guanylyl cyclase by tyrosine phosphorylation". Since 2005 - present, Paul-Ehrlich Institute, Deputy Head Section Monoclonal and Polyclonal Antibodies, Laboratory Head and Scientific Assessor (Quality, Pre-clinic).

PETER LASHLEY,

Director Executive Support, BioProcess R&D, Sanofi Pasteur, Toronto, Canada

Peter has a Masters of Business Administration degree from McMaster University and a B.Sc. in Microbiology from the University of Toronto. Peter has been with sanofi pasteur for more than 25 years starting as a technician and progressing through positions with greater responsibility through, Quality Control, Manufacturing, Sales and Operations Planning and finally, Research and Development. Today he is Director Executive Support, BioProcess R&D.

DR DANIEL MÜLLER, GMP Inspectorate Local Government, Tübingen, Germany

Daniel Müller studied Pharmacy at the University of Wuerzburg, followed by doctorate. He started working in the pharmaceutical industry in 1998. Among other positions he served as a Qualified Person of large volume parenterals. In 2001 he joined a German inspectorate at Tübingen. Since that time he has been working as a GMP Inspector with focus on biotechnological active ingredients and sterile drug products.

DR ANDREAS NEUBERT, IDT Biologika, Germany

Andreas Neubert has more than 25 years experience in vaccine development and manufacturing. He worked about 10 years on R&D projects for viral vaccines. He is Vice President for Vaccines within IDT Biologika, and responsible for the production of vaccines for human and veterinary use. Andreas Neubert was invited to study Veterinary Medicine at the Veterinary Academy in Moscow, Russia, and received his doctorate in veterinary virology from the University Leipzig, Germany, in 1991. He is appointed guest lecturer at University Halle/Saale for cGMP in Pharmaceutical Biotechnology.

ALAIN PRALONG, Pharma-Consulting ENABLE GmbH, Switzerland

Alain Pralong obtained his doctorate in molecular and cellular biology at the University of Berne in 2000. His research into apoptosis was conducted jointly between the University and Novartis, where all laboratory-based investigations were carried out. From 2000 to 2004 he worked on manufacturing Adenovaccine clinical trial material at Schering-Plough. Following a move to Roche in 2004, he managed their transfer of Avastin process manufacturing from Genentech. From 2007 to 2008, he worked at Merck-Serono in the manufacturing of hormones used in treatment of infertility. Since 2008, Alain has been Vice President at Crucell where he led the Global Process Development Department working on various monoclonal antibodies and vaccines until the take over of Crucell by Johnson & Johnson in 2011. Alain works now as consultant for Pharma-Consulting ENABLE GmbH.

Easy Registration









22 November 2011, 09.00 - 17.30 h (Registration and coffee 08.30 - 09.00 h) 23 November 2011, 08.30 - 17.00 h

Venue

Radisson Blu Fürst Leopold Hotel Friedensplatz 06844 Dessau-Roßlau (near Leipzig) Phone 0340 25 15 0; Fax 0340 25 15 177

Bus Shuttle Berlin Tegel Airport and Airport Leizig-Halle to **Conference Hotel**

There will be a free of charge bus shuttle from the Airports Berlin Tegel and Leipzig-Halle to Radisson Blu Fürst Leopold Hotel on Monday, 21 November 2011 at 19.00 h.

On 23 November a free of charge bus shuttle will take you to the Airports Berlin Tegel (transfer time approx. 90 minutes) and Leipzig (transfer time approx. 60 minutes) after the end of the conference at approx. 17.30 h.

For booking the shuttle service please use the order form which you will receive with the confirmation for your registration by e-mail.

Conference fees

ECA Members EUR 1.490,- per delegate plus VAT APIC Members EUR 1.590,- per delegate plus VAT (does not include ECA Membership) Non-ECA Members EUR 1.690,- per delegate plus VAT EU GMP Inspectorates EUR 845,- per delegate plus VAT The conference fee is payable in advance after receipt of invoice and includes conference documentation, dinner on the first day, lunch on both days and all refreshments. VAT is reclaimable.

Accommodation

CONCEPT HEIDELBERG has reserved a limited number of rooms in the conference hotel. You will receive a room reservation form when you have registered for the conference. Please use this form for your room reservation or be sure to mention "VA 1419414 ECA Event" to receive the specially negotiated room rate (86 EUR for a Single, 112 EUR for a Double - both incl. breakfast) for the duration of your stay. Reservation should be made directly with the hotel not later than 24 October 2011. Early reservation is recommended.

Conference Language

The official conference language will be English.

Organisation and Contact

ECA has entrusted Concept Heidelberg with the organisation of this event.

CONCEPT HEIDELBERG P.O. Box 10 17 64 69007 Heidelberg, GERMANY Phone +49 (0) 62 21/84 44-0 Fax +49 (0) 62 21/84 44 34 E-mail: info@concept-heidelberg.de www.concept-heidelberg.de

For questions regarding content:

Axel H. Schroeder (Operations Director) at +49-62 21/84 44 10 or per e-mail at schroeder@concept-heidelberg.de. For questions regarding reservation, hotel, organisation etc.: Jessica Stürmer (Organisation Manager) at +49-62 21/84 44 43 or per e-mail at stuermer@concept-heidelberg.de.

If the bill-to-address deviates from the specification to the right, please fill out here:	Reservation Form (Please complete in full)	♣ +49 6221 84 44 34
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If you cannot attend the conference you have two options:

- 1. We are happy to welcome a substitute colleague at any time.
- 2. If you have to cancel entirely we must charge the following processing fees: Cancellation
- until 2 weeks prior to the conference 10 %
- until I weeks prior to the conference 50 %
 within I week prior to the conference 100 %

CONCEPT HEIDELBERG reserves the right to change the materials, instructors, or speakers without notice or to cancel an event. If the event must be cancelled, registrants will be notified as soon as

possible and will receive a full refund of fees paid. CONCEPT HEIDELBERGwill not be responsible for discount airfare penalties or other costs incurred due to a cancellation. **Terms of payment:** Payable without deductions within 10 days after receipt of invoice.

Important: This is a binding registration and above fees are due in case of cancellation or non appearance. If you cannot take part, you have to inform us in writing. The cancellation fee will then be calculated according to the point of time at which we receive your message. In case you do not appear at the event without having informed us, you will have to pay the full registration fee, even if you have not made the payment yet. Only after we have received your payment, you are entitled to participate in the conference (receipt of payment will not be confirmed)!