

TTC TECHNOLOGY TRAINING CENTER

Workshop:

PELLETS AND MICROPELLETS FOR ORAL MULTIPARTICULATE DOSAGE FORMS

10 - 12 October 2017



BACKGROUND

More and more pharmaceutical products are reaching the market as multiparticulate dosage forms, mainly as pellets. The healthcare sector also frequently selects pellets as the optimal marketable form of functional food. As there are quite a number of existing techniques relating to the production of pellets, it is often very difficult for a formulator or marketing manager to make a choice, since every technique claims to be optimal.

This workshop aims to elaborate the advantages and drawbacks of the individual techniques, focusing on the optimal spectrum of each one but also consider the economical and ergonomical aspects of manufacturing processes. On special request of various participants, this workshop has been extended to include lectures on the main excipients for pelletizing and pellet coating, on functional pellet coating, compression of pellets into tablets, capsule filling and the most suitable capsule materials. All speakers are specialized, experienced and renowned experts from science and industry.

WHO SHOULD ATTEND?

Researchers, product developers and production staff from all industrial fields which develop and produce products in pellet form.

PROGRAM

TUESDAY, 10 OCTOBER 2017

12:00 Transfer from hotel to TTC

12:30 **Reception and registration**

12:50 Introduction [Klaus N. Moeller](#)

13:00 **Principles of pellet production & processing: pelletizing, layering and coating.** Introducing the basics of pellet manufacturing focusing on pharmaceutical applications. Giving an insight into theoretical backgrounds, standard manufacturing operations und required equipment and starter materials to create various pellet types and sizes.
[Florian Priese](#)

14:00 **Identifying new opportunities for products using multiparticulates: Life cycle management, pediatrics, animals health and more.** Biopharmaceutical, physiological, economical, safety and intellectual property advantages have created opportunities favoring the use of pellets over monolithic systems. Highlighting how the unique size and modified release properties of pellets can contribute to a superior solution. [Florian Priese](#)

15:00 **Coffee break**

15:30 **Innovative starter beads for multiparticulate dosage forms.** More and more neutral and functional starter cores are available on the market. Presenting the different products and their characteristics. [Philippe Tschopp](#)

16:00 **Excipients for pelletizing in fluidized bed processes.** Providing an insight into the common excipients for various fluidized bed processes such as granulation and coating focusing on pelletization. [Dirk Schmalz](#)

16:45 **Advanced continuous fluidized bed technologies for pellets and micro pellets.** Presenting various continuous fluidized bed processes. Outlining the opportunities to optimize product quality and reduce manufacturing costs. [Norbert Pöllinger](#)

17:30 Transfer to Hotel

19:30 **Workshop Dinner**

WEDNESDAY, 11 OCTOBER 2017

08:40 Transfer from Hotel to TTC

09:00 **From multiparticulates to tablets - overview of possibilities and form adaptations for products and users.** Spheres are multiparticulates products but can be easily compressed to obtain single tablets. Providing an overview on their purpose and the advantages for the products and the users. [Pascale Gauthier](#)

09:45 **Process optimization considering QbD and using DoE - The basis for successful scale-up.** Process optimization is a prerequisite for successful scale-up and process validation. Presenting real-life examples: Applying Quality by Design and Design of Experiments. [Guido Büch](#)

10:30 **Coffee break**

11:00	Scale-up of particle coating in the fluidized bed - Understanding the process. Scale-up is the transfer of a process from lab-scale to manufacturing scale. Presenting the scale-up concept of particle coating using Wurster technology as an example. Explaining the scale-up of the most important process parameters in detail. Norbert Pöllinger
11:45	MicroPx technology - how to produce high drug loaded micro pellets. NN
12:00	Developing a Pellet Process from Laboratory Scale to Commercial Scale - A Case Study. Finding the right process technology for the target formulation is a prerequisite for successful process development, scale-up and process validation. Presenting real-life examples of how to apply this approach. Anne Ettner
12:45	Lunch
13:45	Capsule filling techniques. Outlining the functional principles of capsule filling machines and dosing systems for multiparticulates. Explaining what to consider in terms of critical product parameters and filling performance. Reviewing solutions for 100 percent in-line verification of dosed mass. Karlheinz Seyfang
14:30	From micro to commercial scale - A look at Equipment for the Real World. Discovering the full range of state-of-the-art fluidized bed units (factory tour).
Practical Session: The hands-on experience with pellets in GMP and technical lab environments	
15:00	Introduction to the practical part Lilia Sprich
15:15	Practical part <ul style="list-style-type: none"> - CPS technology - the new fluidized bed rotor process for direct pelletisation - Wurster fluidized bed pellet coating - state-of-the-art applications with an established technology - Fluidized bed pellet coating - applying a new tangential spraying technology - Capsule filling demonstration Claudio Cortazzo, Björn Haepf, Karlheinz Seyfang
17:30	Transfer to hotel
19:30	Workshop dinner

THURSDAY, 12 OCTOBER 2017

08:40 Check-out from hotel and transfer to TTC

09:00 **Taking a fresh look on multiparticulates in the age of patient centric product design.** Advances in medical and pharmaceutical sciences, demographic changes and the increasing demands in healthcare are challenging, longstanding paradigms in the pharmaceutical industry. Providing a new perspective on innovation through a known formulation approach is food for thought and fresh ideas.
Sven Stegemann

09:45 **Dripping methods to produce pellets.** Dripping consists in extruding a liquid as droplets and solidifying them. The presentation will review the methods, their advantages and limits, as well as their potential for industrial or biomedical applications. **Samira El Mafadi Jian**

10:30 **Coffee break**

11:00 **GMP compliant cleaning of pharmaceutical equipment.** Overviewing procedures, regulations and specific equipment parameters for optimized cleaning with focus on oral solid dosing processes. **Jochen Berger**

11:45 Summary

12:00 Snack buffet and logout

12:30 Transfer to Basel, German Railway Station (Badischer Bahnhof), Swiss Railway Station (SBB) and EuroAirport

ORGANIZATON & LOCATION

TTC - Technology Training Center

Regina Bernstein / Klaus N. Moeller / Bianca Nowak

Werner-Glatt-Straße 1, 79589 Binzen, Germany

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For further information and online registration please visit us on:

www.ttc-binzen.de

SPEAKERS

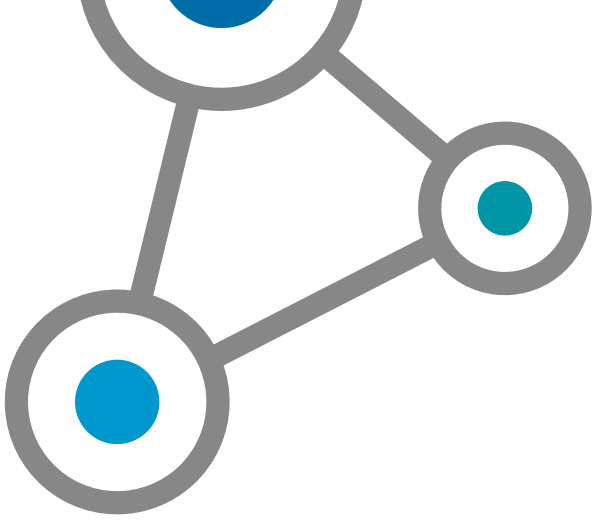
Jochen Berger	Ecolab (Schweiz) GmbH, Switzerland
Dr. Guido Büch	Novartis, Switzerland
Dr. Anne Ettner	Glatt GmbH, Germany
Dr. Pascale Gauthier	Université d'Auvergne France, France
Samira El Mafadi Jian	Novacaps, France
Dr. Norbert Pöllinger	Glatt GmbH, Germany
Dr. Dirk Schmalz	Harke Pharma GmbH, Germany
Dr. Karlheinz Seyfang	Harro Höfliger GmbH, Germany
Lilia Sprich	Glatt GmbH, Germany
Prof. Dr. Sven Stegemann	Technische Universität Graz, Austria
Philippe Tschopp	Glatt GmbH, Germany

MODERATION

Klaus N. Moeller, Technology Training Center

DETAILS

- >> The participation fee is € 1490,- (exclusive of VAT).
- >> This fee includes participation, accompanying course notes, daytime catering and dinner. Any other expenses are to be borne by the attendee.
- >> Free attendance granted to a limited number of students.
- >> Participation is limited. Registrations will be confirmed on a first come first serve basis.
- >> Courses taking place in Germany are subject to Value Added Tax (VAT).
- >> Each participant will receive a certificate of attendance at the end of the course.
- >> **Registration deadline: 24 August 2017**



REGISTRATION

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Name _____

Company _____

Dept. _____

Function _____

Address _____

Phone _____

Fax _____

E-mail _____

Yes, I want to receive information about TTC workshops in future.

Signature _____

Accomodation required from _____

Check-in day: _____

Check-out day: _____ = _____ Nights

(Approx. 79,00 €/night incl. breakfast)



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