

September 18<sup>th</sup>-20<sup>th</sup>, 2018



# Workshop on Continuous Pharmaceutical Manufacturing From Powder to the Coated Tablet

Exclusive 3-day practical hands-on workshop by leading experts with industrial, academial and regulatory experience.

*"The proportion of practical units was considerably bigger than in competitors' workshops."*

*Feedback in 2017*



## DAY 1

- Flexible continuous manufacturing using ObCon® technologies
- Formulation aspects in continuous manufacturing of solid dosage forms
- Implementation of continuous manufacturing for solid dosage forms - an industry perspective

### Practical Session

ObCon® dc and ObCon® dry  
Continuous manufacturing of tablets based on direct compression and roll compaction / dry granulation

## DAY 2

- Feeding and mixing module as key element of continuous manufacturing
- Considerations for process control based on interaction of CQAs and CPPs in continuous manufacturing
- Mechanisms for interacting with health authorities when implementing continuous manufacturing

### Practical Session

ObCon® wet  
Continuous manufacturing of tablets based on twin-screw granulation and continuous drying

## DAY 3

- Tablet compression technology in conjunction with containment in continuous manufacturing environments

### Practical Session

ObCon® 1  
Continuous manufacturing in lab scale and comparison to production scale - how to scale up a continuous wet granulation process?  
PLUS a special topic!

## SPEAKERS

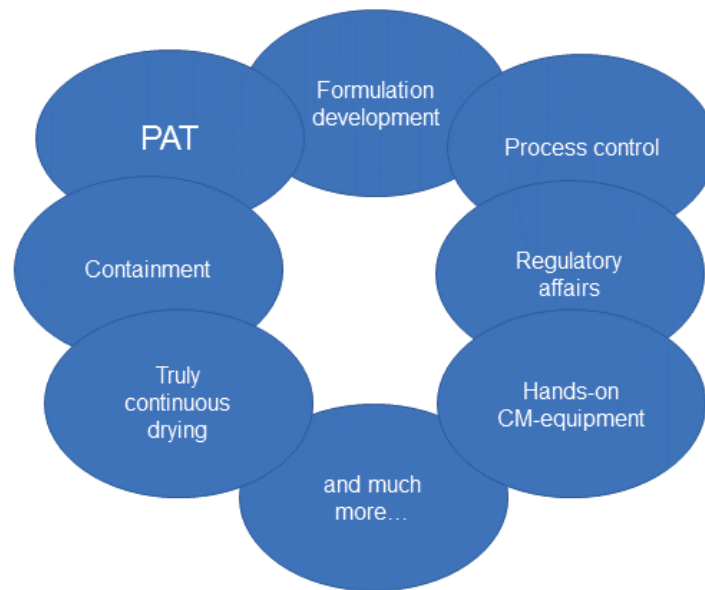
- Prof. Dr. Dr. h.c. Peter Kleinebudde, Heinrich Heine University Düsseldorf
- Guistino Di Pretoro, Ph.D., Associate Director - Continuous Manufacturing at Johnson & Johnson
- Martin Warman, Martin Warman Consultancy Ltd.
- Bernhard Meir, Gericke AG
- Ingo Stammnitz, Korsch AG
- Dr. Robin Meier, L.B. Bohle
- Dipl.-Ing- Andreas Altmeyer, L.B. Bohle

## VENUE

L.B. Bohle Technology Center  
Industriestr. 18  
Germany - 59320 Ennigerloh  
[www.lbbohle.com](http://www.lbbohle.com)  
[www.continuous-production.com](http://www.continuous-production.com)

Facilitating all relevant theme complexes for Continuous Manufacturing:

- Large practical hands-on continuous manufacturing demonstrations on every day
- Industrial insights and case studies
- Insights from work with regulatory bodies
- Academic insights with results from latest research
- Insights and new highlight from vendors



### What to expect throughout the practical demonstrations?

Participants will experience the continuous production of coated tablets from raw powders via three different pathways, based on:

- Direct compression
- Roll compaction / Dry granulation
- Twin-screw granulation / continuous drying

PAT-based monitoring and control of the QbCon<sup>®</sup>-line

- NIR and Raman in real-time
- Intermediate and finished dosage form properties
- Measurement of different COAs to reach specified product characteristics

Detailed insights into the unit operations

- Material handling
- Powder feeding and blending
- Dry granulation
- Wet granulation
- Truly continuous drying
- Tableting
- Coating
- ... all in continuous fashion

### Truly continuous drying

- Short residence times - narrow residence time distributions
- Unlimited filter service life via a new and innovative filter cleaning system
- Constant drying throughout all granule size fractions

### How can PAT results influence the control system? e.g.:

- Discharging of non-conforming material
- Fill-level of the tablet press hopper

### Intercommunication of the unit operations

- What happens if ....
- Trouble shooting and error handling during a production run

## Register NOW

### Rates

EUR, excl. VAT 985 €

Special rate for several attendees from one company.

Participation is limited.

Free attendance guaranteed to a limited number of students.

**Registration:** [www.bit.ly/bohle\\_workshop\\_OSD](http://www.bit.ly/bohle_workshop_OSD)

*„It was a very good combination of practical sessions and lectures.“*

*„High qualified speakers. All questions were answered very detailed.“*

*Feedback in 2017*



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[www.continuous-production.com](http://www.continuous-production.com)

Partner:



# Workshop on Continuous Pharmaceutical Manufacturing From Powder to the Coated Tablet

## AGENDA

### Tuesday, September 18<sup>th</sup> - Day One

12.00 p.m. - 05:45 p.m

Lectures:

- Flexible Continuous Manufacturing Using QbCon® Technologies

Dr. Robin Meier, L.B. Bohle

- Formulation Aspects in Continuous Manufacturing of Solid Dosage Forms

Prof. Dr. Dr. h.c. Peter Kleinebudde, Heinrich Heine University Düsseldorf

- Implementation of Continuous Manufacturing for Solid Dosage Forms – An Industry Perspective

Giustino Di Pretoro, Ph.D., Associate Director – Continuous Manufacturing at Johnson & Johnson

Practical Session:

QbCon® dc and QbCon® dry:

Continuous manufacturing of tablets based on direct compression and roll compaction/dry granulation

### Wednesday, September 19<sup>th</sup> - Day Two

09.00 a.m. - 05.15 p.m.

Lectures:

- Feeding and Mixing Module as Key Element for Continuous Manufacturing

Bernhard Meier, Gericke AG

- Considerations for Process Control Based on Interaction of COAs and CPPs in Continuous Manufacturing

Dipl.-Ing. Andreas Altmeyer, L.B. Bohle

- Mechanisms for Interacting with Health Authorities when Implementing Continuous Manufacturing

Martin Warman, Martin Warman Consultancy Ltd.

Practical Session:

QbCon® wet:

Continuous manufacturing of tablets based on twin-screw granulation and truly continuous drying

### Thursday, September 20<sup>th</sup> - Day Three

09.00 a.m. - 01.30 p.m.

Lectures:

- Tablet Compression Technology in Conjunction with Containment in Continuous Manufacturing Environments

Ingo Stammnitz, KORSCH AG

Practical Session:

QbCon 1:

Continuous manufacturing in lab scale and comparison to production scale –

how to scale up a continuous wet granulation process?

Plus a special topic