2nd Braunschweig International Symposium on Pharmaceutical Engineering Research SPhERe September 06 to 08, 2017

Wednesday, Sept. 06, 2017

12:00 - 13:00	Registration Light lunch
13:00	Opening, Welcome Addresses
13:30	A. Kwade, Institute for Particle Technology, TU Braunschweig *The new Research Center of Pharmaceutical Engineering Research PVZ @ TU Braunschweig*
14:00 - 16:10	**Session I:** Continuous Manufacturing in Formulation
14:00-14:40	*Invited lecture* K. Klokkers, Sandoz, Holzkirchen *Innovative in-process controls*
14:40 - 15:10	*Coffee Break*
15:10-15:30	M. Michaelis, Hüttlin GmbH, Schropfheim *Advanced data analytics of process data*
15:30-15:50	B. Bonhoeffer[1], Arno Kwade[2,3], Michael Juhnke[1], [1]Novartis Pharma AG, Basel, [2]Institute for Particle Technology, TU Braunschweig, [3]Center of Pharmaceutical Engineering (PVZ), TU Braunschweig, *Dispensing and processing of drug nanosuspensions into solid oral dosage forms using alternative manufacturing concepts*
15:50-16:10	M. Evers[1], A. Cabre[1], D. Weis[2], S. Anonyuk[2], M. Thommes[1], [1]Chair for Solids Process Engineering, TU Dortmund, [2]Chair for Particle Process Engineering, TU Kaiserslautern *Scale-up modelling for the spheronization of wet extrudates*
16:10 - 18:10	**Session II:** Poster and short presentations
16:10-17:10	Poster short presentations
17:10-18:10	Poster Discussions
18:10 - …	**Get Together @ PVZ-Atrium & Guided tours**

Thursday, Sept. 07, 2017

08:30 - 10:00 **Session III: Formulation and process development**

8:30-9:10 *Keynote Lecture*
J. Schmitt, B. Braun Melsungen, Melsungen
Intravenous Lipid Emulsions (IVLE) – an industrial view

9:10-9:30 S. Melzig[1,2], C. Schilde[1,2], J. H. Finke[1,2], A. Kwade[1,2], [1]Institute for Particle Technology, TU Braunschweig, [2]Center of Pharmaceutical Engineering (PVZ), TU Braunschweig,
Tailoring the release kinetics of nanosized API formulations by process chain design

9:30-9:50 D. Markl[1], A. Zeitler[2], [1]Department of Chemical Engineering and Biotechnology, University of Cambridge, [2]Department of Chemical Engineering, University of Cambridge
Insights into the Disintegration Mechanisms of Pharmaceutical Tablets using Terahertz Imaging and Spectroscopy

9:50 - 10:20 *Coffee Break*

10:20 - 12:00 **Session IV: Microsystems for continuous processing and analytics**

10:20-11:00 *Keynote Lecture*
H. Wachtel, Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim
Micro nozzles for soft inhalers

11:00-11:20 A. Al-Halhouli[1], W. Al-Faqheri[1], B. Alhamarneh[1], L. Hecht[2], A. Dietzel[2], [1]Nano Lab, School of Applied Technical Sciences, German Jordanian University (GJU), Amman/J, [2]Institute of Microtechnology, TU Braunschweig,
Trapezoidal spiral microfluidics for inertial focusing and separation of different particle sizes

11:20-11:40 A. Wilk, T. Heitmann
Wilk - Graphite GmbH, Lörrach
Continuous Archimedean Screw-Crystallizer / Reactor (ASKR)

11:40 - 12:40 *Lunch Break*

12:40 - 14:40 **Session V: Micro bioreactors for pharmaceutical applications**

12:40-13:20 *Keynote Lecture*
N. Szita, Bioprocess Microfluidics, Department of Biochemical Engineering, University College London, London/UK
Microfluidic approaches for bioprocess development from upstream to downstream

13:20-13:50 U. Krühne, Department of Chemical and Biochemical Engineering, Technical University of Denmark
Experiences with microsystems in processing and screening

13:50-14:10 S. Lladó Maldonado[1,2], D. Rasch[1,2], A. Kasjanow[3], D. Bouwes[3], U. Krühne[4], R. Krull[1,2], [1]Institute of Biochemical Engineering, TU Braunschweig, [2]Center of Pharmaceutical Engineering (PVZ), TU Braunschweig, [3]Micronit GmbH, Dortmund, [4]Department of Chemical and Biochemical Engineering, Technical University of Denmark
Bioengineering at the microscale: Process characterization of a microbubble column-bioreactor

14:10-14:30	O. Shvydkiv, M. Roth, Leibniz Institute for Natural Product Research and Infection Biology, Jena *Droplet microfluidics in biotechnological research*
14:30 - 15:00	*Coffee Break*
15:00 - 17:30	**Session VI:** µProps-Session
15:00-15:15	Introductory Talk to µProps Graduate Program (Bunjes, Dietzel)
15:15-16:15	Poster short presentations
16:15-17:30	Poster Discussion
18:30	Conference Dinner

Friday, Sept. 08, 2017

08:30 - 10:00	**Session VII:** Production processes for chemical API
8:30-9:00	*Invited Lecture* W. Sievers, Sanofi Frankfurt *Chemical API production – life cycle management*
9:00-9:20	V. N. Emenike[1,2,3], R. Schenkendorf[1,2], U. Krewer[1,2] [1] Institute of Energy and Process Systems Engineering, TU Braunschweig, [2] Center of Pharmaceutical Engineering (PVZ), TU Braunschweig [3] International Max Planck Research School for Advanced Methods in Process and Systems Engineering, Magdeburg *Advances in model-assisted process design for (bio)pharmaceutical manufacturing*
9:20-9:40	M. C. Rehbein[1,2], S. Husmann[1], J. Wolters[1], C. Lechner[3], C. Kunick[2,3], S. Scholl[1,2], [1]Institute for Chemical and Thermal Process Engineering, TU Braunschweig, [2]Center of Pharmaceutical Engineering (PVZ), TU Braunschweig, [3]Institute for Medicinal and Pharmaceutical Chemistry, TU Braunschweig *Batch-to-conti transfer of a pharmaceutically relevant synthesis utilizing in-situ ATR-FTIR*
9:40-10:10	*Invited Lecture* J. Hubbuch[1], M. Kind[2], H. Nirschl[3], Department of Chemical and Process Engineering, Karlsruhe Institute of Technology, [1]Biological Separation Engineering, [2]Thermal Process Engineering, [3]Process Engineering and Mechanics *Preparatory protein crystallization*
10:10-10:30	M. Mostafavi, H. B. Schwartz, F. H. Schwartz, Sequip S+E GmbH *In-process evaluation and monitoring of crystallization processes using rather new measuring techniques*
10:30 - 11:00	*Coffee Break*

11:00 - 12:10	**Session VIII:** Biotechnological production of API
11:00-11:20	M. Gaid[1,3], D. Neb[2], R. Hänsch[1], L. Beerhues[1,3], [1]Institute of Pharmaceutical Biology, TU Braunschweig, [2]Faculty 2, Botany, University of Bremen, [3]Center of Pharmaceutical Engineering (PVZ), TU Braunschweig *Hypericum: Toward In vitro cultures with high medicinal value*
11:20-11:50	L. Fillaudeau[1,2], Y. Manon[1,2], H. Kraiem[1], A. Timoumi[1], T. C. Nguyen[1,2,4], T. Le[1,2,4], D. Anne-Archard[3,4], C. Bideaux[1], N. Gorret[1], C. Molina-Jouve[1], [1]Laboratoire d'Ingénierie des Systèmes Biologiques et des Procédés (Université de Toulouse; INSA; INRA UMR792, CNRS UMR5504), Toulouse/F, [2]CNRS, Fédération de Recherche FERMAT, Toulouse/F, [3]Université de Toulouse, IMFT (Institut de Mécanique des Fluides de Toulouse), Toulouse/F, [4]School of Biotechnology and Food Technology, Hanoi University of Science and Technology, Hanoï/V *Characterization of mycelial transition of Yarrowia lipolytica during oxidative cultures: comparison of optical methods and their limitation, impact of morphology on rheological behaviour*
11:50-12:10	S. Tesche[1,2], R. Rösmeier-Scheumann[1], R. Krull[1,2], [1]Institute of Biochemical Engineering, TU Braunschweig, [2]Center of Pharmaceutical Engineering (PVZ) *Improved production of Labyrinthopeptin with Actinomadura namibiensis by salt-controlled modification of pellet morphology*
12:10	**Adjourn**
12:20 - 13:20	*Lunch (Optional)*

September 3, 2017