

PROGRAM

DAY 1 (2/Sep/Monday)

8:00 AM Registration desk open

Opening Ceremony

9:00 AM – 9:10 AM

Opening address Yoshinobu Fukumori Chairman of Agglos10, Kobe Gakuin University, Japan

Invited Keynote Talk I

9:10 AM – 10:00 AM

Session Chair: Satoru Watano

THE SCIENCE BEHIND A GRANULE: "A LIFE STORY"

Agba D. Salman, University of Sheffield, UK

Oral Session 1-1

10:00 AM – 10:40 AM

Session Chair: Satoru Watano

Synthesis, Aggregation, Dispersion of Nanoparticles I

10:00 AM O-1 **Synthesis and Dispersion Control of Iron Nanoparticles for Magnetorheological Fluid**
H. Abe¹, M. Naito¹, S. Yamanaka²
¹Osaka University, JAPAN, ²Muroran Institute of Technology, JAPAN

10:20 AM O-2 **Nanohybrid Nanopowders of Sol-Gel derived Ceria and Mullite for Catalytic Use by Aggregation Control of Sol**
H. Suzuki, N. Sakamoto, N. Wakiya
Shizuoka University, JAPAN

10:40 AM Break

Oral Session 1-2

10:50 AM – 11:50 AM

Session Chair: Hiroya Abe

Synthesis, Aggregation, Dispersion of Nanoparticles II

10:50 AM O-3 **Control of Aggregation and Dispersion of Mechanochemically Synthesized Magnetite Nanoparticles in Aqueous Magnetic Fluid**
T. Iwasaki, T. Kagawa, H. Nakamura, S. Watano
Osaka Prefecture University, JAPAN

11:10 AM	O-4	Hydrothermal Synthesis of Size-controlled Crystalline Magnetite Nanoparticles Using Response Surface Methodology <u>N. Mizutani</u> , T. Iwasaki, S. Watano Osaka Prefecture University, JAPAN
11:30 AM	O-5	Formation Mechanism of Non-Spherical CaCO₃ Particles on an Agglomeration Process by a Hybrid Simulation <u>K. Kadota</u> ^{1,2} , R. Furukawa ¹ , Y. Tozuka ² , A. Shimosaka ¹ , Y. Shirakawa ¹ , J. Hidaka ¹ ¹ Doshisha University, JAPAN, ² Osaka University of Pharmaceutical Sciences, JAPAN
11:50 AM	Lunch	

Invited Keynote Talk II

1:10 PM – 2:00 PM

Session Chair: Kunikazu Moribe

GAS PHASE SYNTHESIS OF COATED PARTICLES FOR INHALATION DRUG DELIVERY

Esko I. Kauppinen, Aalto University, FINLAND

Oral Session 2-1

2:00 PM – 3:00 PM

Session Chair: Kunikazu Moribe

Pharmaceutical Science and Technology I

2:00 PM	O-6	Preparation of Inhalable Dry Powders of Thymopentin-loaded Chitosan Nanoparticles <u>C. Cuifang</u> , W. Lei, T. Xing Shenyang Pharmaceutical University, CHINA
2:20 PM	O-7	Solubility Improvement of Poorly Water Soluble Drug with Solid Dispersing System by Spray Drying and Hot Melt Extrusion Techniques with Amphiphilic Polymer <u>N. Ogawa</u> , T. Hiramatsu, R. Suzuki, M. Kataoka, S. Kondo, K. Shibagaki, C. Takahashi, Y. Kawashima, H. Yamamoto Aichi Gakuin University, JAPAN
2:40 PM	O-8	Phospholipid Based Pellets Using Extrusion-Spheronization S. Chopra ¹ , <u>N. Venkatesan</u> ² , G. Betageri ¹ ¹ Western University of Health Sciences, USA, ² Midwestern University, USA
3:00 PM	Break	

Pharmaceutical Science and Technology II

- | | | |
|---------|------|---|
| 3:20 PM | O-9 | <p>Preparation and Evaluation of Nifedipine Multi-reservoir Controlled Release Tablet Using Hot Melt Extrusion
 <u>Y. Zhang</u>, Q. Yao, Y. Shao, X. Tang
 Shenyang Pharmaceutical University, CHINA</p> |
| 3:40 PM | O-10 | <p>A Novel Type of Short-term Delayed Release Microcapsules with Expansionary Cores and Multi-layered Coatings Prepared by Using Wurster Fluid Bed
 <u>D. Liu</u>¹, H. Ichikawa², T. Uemura³, X. Tang¹, F. Cui¹, Y. Fukumori²
 ¹Shenyang Pharmaceutical University, CHINA, ²Kobe Gakuin University, JAPAN, ³Pharma PolyTech Inc., JAPAN</p> |
| | O-11 | <p>Paper Withdrawn by the Authors</p> |
| 4:00 PM | O-12 | <p>The Consideration of Issues Concerning Precipitation in Collagen Drinks
 <u>M. Kanie</u>, Y. Yamada
 Nissin Pharmaceutical Industries Co., Ltd., JAPAN</p> |

DAY 2
(3/Sep/Tuesday)

8:30 AM Registration desk open

Invited Keynote Talk III

9:00 AM – 9:50 AM

Session Chair: Satoru Watano

PHARMACEUTICAL GRANULATION

- IMPROVING PARTICLE DESIGN AND PROCESSING

Karen P. Hapgood, Monash University, AUSTRALIA

Oral Session 3-1

9:50 AM – 10:30 AM

Session Chair: Satoru Watano

Modeling and Simulation I

9:50 AM O-13 **Modeling the Disintegration and Dissolving of Water-soluble Bulk Solids from Online Particle Concentration Measurements**

W. R. Mitchell¹, T. O. Althaus², L. Forney³, G. Niederreiter⁴, S. Palzer⁴,
M. J. Hounslow¹, A. D. Salman¹

¹University of Sheffield, UK, ²Nestlé Product Technology Centre, UK,

³Nestlé Research Centre, SWITZERLAND, ⁴Nestlé SA Headquarters, SWITZERLAND

10:10 AM O-14 **Numerical Modeling of Dynamic Liquid Bridge between Moving Particles**

H. Nakamura, Y. Yamamoto, K. Hiroyuki, S. Watano

Osaka Prefecture University, JAPAN

10:30 AM Break

Oral Session 3-2

10:40 AM – 11:40 AM

Session Chair: Hideya Nakamura

Modeling and Simulation II

10:40 AM O-15 **Direct Numerical Simulation of Liquid Penetration into a Dense Powder Bed**

K. Washino¹, T. Tsuji¹, T. Tanaka¹, H. S. Tan², M. J. Hounslow³, A. D. Salman³

¹Osaka University, JAPAN, ²P&G Innovation Centres Ltd., UK,

³University of Sheffield, UK

11:00 AM O-16 **Numerical Study of Dispersion of a Carrier-Based Dry Powder Inhalation System**

Z. Tong¹, H. Kamiya¹, R. Yang², A. Yu²

¹Tokyo University of Agriculture & Technology, JAPAN,

²University of New South Wales, AUSTRALIA

11:20 AM O-17 Paper Withdrawn by the Authors

Exhibitor Short Presentation

11:20 AM – 11:55 AM

Session Chair: Hideya Nakamura

Product Introduction Presented by Exhibitors

11:20 AM	E-1-1	Nara Machinery Co., Ltd.
11:25 AM	E-1-2	Nara Machinery Co., Ltd.
11:30 AM	E-2	Shinagawa Machinery Works Co., Ltd.
11:35 AM	E-3	Ohkawara Kakohki Co., Ltd.
11:40 AM	E-4	Dalton Co., Ltd.
11:45 AM	E-5	Nippon Soda Co., Ltd.
11:50 AM	E-6	Evonik Japan Co., Ltd.
11:55 AM	Lunch with Exhibition	

Invited Keynote Talk IV

1:40 PM – 2:30 PM

Session Chair: Agba D. Salman

ADVANCED GRANULATION TECHNOLOGY - FROM PAST TO FUTURE –

Satoru Watano, Osaka Prefecture University, JAPAN

Poster Session & Exhibition

2:30 PM – 4:30 PM

2:30 PM	Poster Viewing and Exhibition
4:30 PM	Break

Excursion

5:00 PM – 6:00 PM

5:00 PM	Kobe Bay Cruise
6:00 PM	Bus Transfer to Banquet venue

Banquet

7:00 PM – 9:00 PM

7:00 PM	Banquet at Kobe Portopia Hotel (South Bldg., 16F, Ballroom “Rainbow”)
---------	---

DAY 3
(4/Sep/Wednesday)

8:30 AM Registration desk open

Invited Keynote Talk V

9:10 AM – 10:00 AM

Session Chair: Karen Hapgood

ANALYSIS OF SEEDED GRANULATION IN BATCH AND CONTINUOUS HIGH SHEAR GRANULATORS

Mojtaba Ghadiri, University of Leeds, UK

Oral Session 4-1

10:00 AM – 11:00 AM

Session Chairs: Karen Hapgood, Hideya Nakamura

Granulation and Coating I

- | | | |
|----------|------|--|
| 10:00 AM | O-18 | Preparation of Controlled Release Fine Particles by the Dry Coating Method
<u>H. Yuasa</u> ¹ , S. Nakamura ¹ , T. Ito ¹ , K. Kabasawa ² , T. Sakamoto ¹
¹ Matsuyama University, JAPAN, ² Tokyo Printing Ink Manufacturing Co., Ltd., JAPAN |
| 10:20 AM | O-19 | Design of Fine Granules by a Horizontal High Shear Mixer with a Super High Speed Chopper
<u>N. Asai</u> ¹ , T. Tsuji ¹ , H. Nakamura ² , S. Watano ²
¹ Dalton Co. Ltd., JAPAN, ² Osaka Prefecture University, JAPAN |
| 10:40 AM | O-20 | High Shear Mixer Granulation of Xanthan Gum
J. Wangler, M. Beck, <u>R. Kohlus</u>
University of Hohenheim, GERMANY |
| | O-21 | Paper withdrawn |
| | O-22 | Paper withdrawn |
| 11:00 AM | | Group Photography |
| 11:30 AM | | Lunch with Poster Viewing & Exhibition |

Oral Session 5-1

1:00 PM – 2:00 PM

Session Chair: Yuichi Tozuka

Measurement and Characterization I

1:00 PM	O-23	Correlation of Granulation Torque with Granules and Tablet Properties <u>T. Uemura</u> ^{1,2,3} , M. Morizane ¹ , S. Uramatsu ² , Y. Fukumori ³ ¹ Pharm PolyTech Inc., JAPAN, ² Daido Chemical Corp., JAPAN, ³ Kobe Gakuin University, JAPAN
	O-24	Paper Withdrawn by the Authors
1:20 PM	O-25	Agglomerate Attrition Testing by Coupled Shearing and Impact H. Ahmadian ^{1,2} , <u>M. Ghadiri</u> ¹ ¹ University of Leeds, UK, ² Procter & Gamble Technical Centres, UK
1:40 PM	O-26	A New Method of Zeta-potential Measurement by Use of the Sedimentation Balance Method <u>H. Yoshida</u> ¹ , F. Nakatuka ¹ , T. Tatekawa ¹ , K. Fukui ¹ , T. Yamamoto ¹ , M. Matuzawa ² , K. Takai ² ¹ Hiroshima University, JAPAN, ² Hitachi Chemical Co. Ltd., JAPAN
2:00 PM	Break	

Oral Session 5-2

2:20 PM – 3:20 PM

Session Chair: Kimiaki Washino

Measurement and Characterization II

2:20 PM	O-27	Strength of Sinter Bridges between Hygrosensitive Maltodextrin Particles <u>C. I. Haider</u> ¹ , T. Althaus ² , G. Niederreiter ³ , S. Palzer ³ , M. J. Hounslow ¹ , A. D. Salman ¹ ¹ University of Sheffield, UK, ² Nestlé Product Technology Centre, UK, ³ Nestlé SA Headquarters, SWITZERLAND
2:40 PM	O-28	Process Parameters Influencing Unwanted Agglomeration of Amorphous Particles <u>C. I. Haider</u> ¹ , T. Althaus ² , G. Niederreiter ³ , S. Palzer ³ , M. J. Hounslow ¹ , A. D. Salman ¹ ¹ University of Sheffield, UK, ² Nestlé Product Technology Centre, UK, ³ Nestlé SA Headquarters, SWITZERLAND
3:00 PM	O-29	Surface Forces in Oil Phase Mediated by a Secondary Immiscible Liquid <u>A. A. Negreiros</u> ¹ , T. O. Althaus ² , G. Niederreiter ³ , S. Palzer ³ , M. J. Hounslow ¹ , A. D. Salman ¹ ¹ University of Sheffield, UK, ² Nestlé Product Technology Centre, UK, ³ Nestlé SA Headquarters, SWITZERLAND

Closing Ceremony

3:20 PM – 3:30 PM

Closing remarks	Satoru Watano	Co-Chairman of Agglos10, Osaka Prefecture University, JAPAN
------------------------	---------------	---