

## SECOND INTERNATIONAL WORKSHOP ON GRANULATION

# GRANULATION MEETING PROGRAMME 24-25 June 2004, Sheffield, U.K.

### Thursday 24th June

8:30 **Registration**

#### **SESSION I: HIGH SHEAR PROCESSES**

9:25 **Introduction** Agba Salman, University of Sheffield

9:30 **High Shear Granulation in the Pharmaceutical Industry; Inhomogeneity Phenomena**

K. van den Dries<sup>1</sup>, H. Vromans<sup>1&2</sup>

1- N.V. Organon, 2- University of Utrecht, The Netherlands

9:55 **Empirical to Mechanistic Modelling in High Shear Granulation – Examples from the Pharmaceutical Industry**

I. Niklasson Björn, A. Jansson, M. Karlsson, S. Folestad and A. Rasmuson  
AstraZeneca, Sweden

10:20 **Wet Granulation in a Batch High Shear Mixer**

K. Saleh, L. Vialatte and P. Guigon

Université de Technologie de Compiègne, France

10:45 **Coffee Break**

11:15 **Mechanisms in High Viscosity Immersion**

S.L. Rough<sup>1</sup>, D.I. Wilson<sup>1</sup> and A.E. Bayly<sup>2</sup> and D.W. York<sup>2</sup>

1- University of Cambridge, 2- Procter and Gamble Ltd, UK

11:40 **Agglomeration Properties for Gluten and Gluten free Cereals Flours by Water Addition and Shearing**

A. Hebrard and D. Oulahna

Ecole des Mines d'Albi-Carmaux, France

12:05 **Granular Flow in a Planetary Mixer**

B.F.C. Laurent and D.I. Wilson

University of Cambridge, UK

12:30 **Lunch**

## **SESSION II: FLUIDIZED BED PROCESSES**

- 13:30 **Introduction** Nigel Somerville Roberts, Procter and Gamble Ltd
- 13:35 **Studies of Fluid Bed Granulation in an Industrial R&D Context**  
R. Boerefijn  
Unilever Research Vlaardingen Laboratory, The Netherlands
- 14:00 **Spray Granulation, Agglomeration and Coating Processes Using Continuous Fluidized Bed Technology**  
M. Jacob  
Glatt, Germany
- 14:25 **On the Predictability of Fluidized Bed Spray Granulation: Analysis of Particle Populations and Transport Phenomena**  
S. Heinrich, M. Peglow, M. Henneberg, J. Drechsler and L. Mörl  
Otto-von-Guericke University, Germany
- 14:50 **Particle Design and Evaluation of Dry CO<sub>2</sub> Recovery Sorbent with a Liquid Holding Capability**  
S. Kimura, M. Adachi, R. Noda and M. Horio  
Tokyo University of Agriculture and Technology, Japan
- 15:15 **Coffee Break**
- 15:45 **Preliminary DEM Simulations of Fluidized Bed Granulation**  
D. Kafui and C. Thornton  
University of Birmingham, UK
- 16:10 **Concepts to Improve the Efficiency of Food Agglomeration**  
S. Palzer  
Nestlé, Switzerland
- 16:35 **Breakage Kinetics During Fluidised Bed Granulation**  
H.S. Tan, A.D. Salman and M.J. Hounslow  
The University of Sheffield, UK
- 19:00 **Dinner**

Friday 25<sup>th</sup> June

### SESSION III: COMPACTION PROCESSES

- 9:00 **Introduction** Mike Adams, University of Birmingham
- 9:05 **Dry Granulation of Organic Powders: Dependence of Pressure 2D – Distribution on Different Process Parameters**  
T. Lecompte<sup>1</sup>, P. Doremus<sup>1</sup>, J. Le Thiesse<sup>2</sup>, J. Masteau<sup>2</sup>, L. Perier-Camby<sup>3</sup> and G. Thomas<sup>3</sup>  
1- INPG, 2- Rhodia, 3 - Ecole Nationale Supérieure des Mines de St Etienne, France
- 9:30 **Compression Behaviour of Agglomerates and the Evolution in Tablet Structure**  
G. Alderborn  
Uppsala University, Sweden
- 9:55 **Effect of Process Parameters on Melt Granulation and Tablet Pressing of Pharmaceutical Materials**  
G. Walker  
Queen's University Belfast, UK
- 10:20 **Granulation of Pharmaceutical Excipients by Roll Compaction**  
G. Bindhumadhavan<sup>1</sup>, J. P. K. Seville<sup>1</sup>, M. J. Adams<sup>1</sup>, R. W. Greenwood<sup>1</sup>, S. Fitzpatrick<sup>2</sup>  
1- University of Birmingham, UK, 2- Merck Sharp & Dohme, UK
- 10:45 **Coffee Break**

### SESSION IV: GRANULE PROPERTIES

- 11:15 **Introduction** Mike Hounslow, University of Sheffield
- 11:20 **The Relationship Between Surface Properties and Binder Performance in Granulation**  
S.J.R. Simons<sup>1</sup>, D. Rossetti<sup>1</sup>, P. Pagliai<sup>1</sup>, R. Ward<sup>2</sup> and S. Fitzpatrick<sup>2</sup>  
1- University College London, 2- Merck Sharp & Dohme, UK
- 11:45 **Behavior of Dry Binderless Granules Under Impact and Diametric Compression**  
Y.S. Cheong<sup>1</sup>, A.D. Salman<sup>1</sup>, A.F. Routh<sup>1</sup>, M.J. Adams<sup>2</sup>, C. Thornton<sup>2</sup>, D. K. Kafui<sup>2</sup> and M.J. Hounslow<sup>1</sup>  
1- University of Sheffield, 2- University of Birmingham, UK
- 12:10 **Particle Properties and Adhesive Forces as Parameter of Agglomeration**  
K. Sommer  
TU München, Germany
- 12:35 **Lunch**

- 13:35 **An Experimental Study of the Impact Breakage of Single Wet Granules**  
J.S. Fu<sup>1</sup>, A.D. Salman<sup>1</sup>, G.K. Reynolds<sup>1</sup>, M.J. Adams<sup>2</sup> and M.J. Hounslow<sup>1</sup>  
1- University of Sheffield, 2- University of Birmingham, UK
- 14:00 **Single and Bulk Compressions of Soft Granules: DEM Simulation and Experimental Evaluation**  
A. Samimi, A. Hassanpour and M. Ghadiri  
University of Leeds, Leeds, UK
- 14:25 **Towards a Desktop Attrition Tester for Simulating Pneumatic Conveying**  
G.M.H. Meesters<sup>1&2</sup>, B. van Laarhoven<sup>2</sup> and S. Schaafsma<sup>2</sup>  
1- Delft University of Technology, 2- DSM-Research, The Netherlands
- 14:50 **Computer-aided Design of Granule Microstructure**  
F. Stepanek  
Imperial College, UK
- 15:15 **End**

This meeting is sponsored by:



Abstracts are online at: [www.shef.ac.uk/granulation](http://www.shef.ac.uk/granulation)