



## GEA-NUS Pharmaceutical Technology Workshop 23-25 May 2016

### **“Hands-On” Workshop on Granulation & Tablet Preparation** *Small Group Workshop – Lecture & Practice*

This 4<sup>th</sup> workshop on granulation is organized following the success of past hands-on workshops. The workshop is designed to give a comprehensive overview of granulation technologies through lectures, small group hands-on practice and demonstrations. There will be opportunities to apply theoretical knowledge to the preparation and evaluation of various formulations and the resultant granules and tablets.

#### **Who Should Attend:**

Personnel involved in R&D and manufacture of innovative oral solid products:

- ✓ Production
- ✓ Quality assurance/ Quality control
- ✓ Product formulation and development
- ✓ Contract manufacturing

#### **Course Conductors:**

**Paul De Smet**

*GEA, Belgium*

**Paul De Smet** holds a pharmacist degree from the University of Leuven, Belgium and a degree in Industrial Pharmacy from the same university. He joined Collette-Belgium (member of GEA) in 1983, first as Laboratory Manager, and later in the position of Sales Director. During his years at Collette, he was involved in the development of the ‘single pot’ high shear mixer-granulator and vacuum dryer. He currently is Area Sales and Account Manager with GEA and is responsible for the promotion of GEA’s pharmaceutical equipment. Mr De Smet has published several articles in the field of ‘solids’ production and is a frequent speaker at seminars. His expertise is in granulation/drying technology and tablet compression.

**Paul W S Heng**

*National University of Singapore*

**Paul Heng** has a degree in Pharmacy and a PhD degree in pharmaceutical technology from NUS. He is currently teaching at the National University of Singapore and is the Principal Investigator of GEA-NUS Pharmaceutical Processing Research Laboratory. His research interest is in pharmaceutical technologies, with focus on encapsulation, specialized delivery systems, particle characterization, compaction and oral solids processing. He has published over 250 international refereed research articles and several book chapters among others. He is the editor-in-chief of the Asian J Pharm Sci and member of several other editorial boards.

#### **Organised by:**

**GEA-NUS Pharmaceutical Processing Research Laboratory,  
Department of Pharmacy, National University of Singapore**

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For further information, please contact:

**The Secretariat**

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The aim of this workshop is to provide basic formulation and process know-how in granulation, granule evaluation and preparation of dosage forms. This “hands-on” workshop will cover the theory and practice of granulation and tablet preparation. The practical component (~80 %) will include the conventional as well as more innovative granulation methods. Preparation of oral solid dosage forms will be carried out. Ample time will be provided for Q&A.

### Theory Topics:

- (a) Introduction to Granulation Basics
- (b) Wet Granulation & Pelletization Technologies
- (c) Dry Granulation
- (d) Granule Characterization Methods
- (e) Formation & Preparation of Tablets
- (f) New Concepts in Manufacturing – QbD & PAT

### “Hands-On” Sessions:

- (a) Basics in Blending – with PAT
- (b) High Shear Granulation
- (c) Fluid Bed Granulation – FlexStream
- (d) Dry Granulation by Roller Compaction
- (e) End Point Granulation
- (f) Evaluation of Granules & Compacts

*I hear and I forget. I see and I remember. I do and I understand.*

**Chinese Proverb**

**Please note:** Information provided is only a guide for the workshop.  
Workshop content may be modified, in cases of unforeseen circumstances.

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For further information, please contact:

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