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## Hands-on Tableting Workshop Small Group Workshop – Lecture & Practice

“The Art and Science of Tablet Making”

Venue: GEA-NUS PPRL, Pharmacy Dept, NUS

Mon 5<sup>th</sup> – Wed 7<sup>th</sup> Dec 2022

### Objective:

This 7<sup>th</sup> workshop on tableting follows a series of highly successful hands-on workshops on pharmaceutical processing science and technology. The workshop is designed to provide a comprehensive overview of technologies in formulation development and tablet compaction through lectures, small group hands-on practice and demonstrations. There will be opportunities to apply theoretical knowledge to the preparation and evaluation of tablet dosage form as well as to learn how to prepare specialized products such as MUPS tablets and mini-tablets. The use of a compaction simulator for tablet formulation design will be demonstrated.

### Who Should Attend:

Personnel involved in R&D and manufacture of pharmaceutical products:

- ✓ Production / Education
- ✓ Quality assurance / Quality control
- ✓ Product formulation and development
- ✓ Contract manufacturing
- ✓ Pharmaceutical excipient marketers

**FOR ENQUIRY, EMAIL TO:**  
[geanus@nus.edu.sg](mailto:geanus@nus.edu.sg)

### Course Conductors:



**Metin Celik** is the President of PTI Inc and an Adj Prof of Pharm Sciences at the Coll of Pharmacy, Univ of New Mexico. He received his BSc from Hacettepe Univ, Turkey and his PhD from De Montfort Univ, UK. Dr Çelik had worked at Novartis Switzerland and Turkey, SK&F Labs (US) before joining the faculty at Rutgers Coll of Pharmacy. He has organized over 50 national and

international symposia and short courses on pharm technologies, edited a book, *Pharmaceutical Powder Compaction Technology* and published numerous book chapters and articles relating to pharm formulation and processing issues. His main research interests include QbD, solid dosage formulation and processing, compaction simulation, artificial intelligence applications in pharmaceuticals and continuous manufacturing.



**Goh Hui Ping** joined GEA in 2018 as a pharm process specialist for APC Pharma Solids. He specialises in pharm processes related to oral solid dosage forms - granulation, coating and tablet compression. He leads technical transfers and scale-ups for batch processes, conducts on-site and laboratory trials for customers while educating them on pharm processes with GEA machines to attain higher level of process understanding and optimisation. He has experience in the application of continuous manufacturing technology to direct compression and coating of solids. Prior to joining GEA, he obtained his BSc (Pharmacy) and PhD from NUS. He is also a registered pharmacist under the Singapore Pharmacy Council.



**Celine Liew** obtained her BSc and PhD from NUS. Following her PhD, she worked in the Pharmaceutical Department, Ministry of Health, Singapore before joining Department of Pharmacy, NUS as a Research Fellow in GEA-NUS PPRL in 1997 and later, as a faculty member, 2001-21. She has also industrial work experience as Senior Scientist at Niro Inc., MD, USA, 2002-3. She is currently an Assoc Prof at the School of Pharmacy, Monash University Malaysia. Her research interest is in pharm solids, preformulation and formulation, granulation and pelletization along with material characterization and multiparticulate dosage forms.



**Delphine Ach-Hubert** obtained her PhD in Formulation and Process Engineering and has held different positions in the pharm industry, as formulation scientist and technical transfer project manager. She has worked on the development of liquid and solid dosage forms in different pharm fields such as in paediatric, vaccine and oncology. She is currently a formulation scientist in the Medelpharm Science Laboratory, and performs customer trials (powder characterization and compression trials), consulting on tableting issues and trainings.



**Paul Heng** has a PhD degree in pharm technology from NUS and is currently a Consultant to GEA-NUS PPRL. His research interest is in pharm technologies, with focus on encapsulation, delivery systems, particle characterization, compaction and oral solids processing. He has published over 300 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.

### WORKSHOP PROGRAMME

Theory & Practice

0900 – 1800 Hr, 5<sup>th</sup> – 7<sup>th</sup> December 2022

Complimentary Networking Dinner

1830 – 2030 Hr, 6<sup>th</sup> December 2022

### Note:

- Course materials will be supplied.
- Daily lunches & teas will be provided.
- Limited class size. Registration subject to availability & on a first-come, first-served basis.

### Theory:

- Excipient Selection using SUPAC Guidelines & QbD Approach
- Feed Material Requirements for Tableting Operation
- Theory of Compaction
- Risk Analysis & Design Space Determination
- Causes & Remedies for Tableting Problems
- Use of Artificial Intelligent in Tableting
- Constant Pressure Compaction
- Introduction to the Capabilities of Styl'One
- Tablet Quality Evaluation
- Manufacture of Mini-Tablets
- Design of Pellets & MUPS Tablets
- Compaction Simulator for Tablet Product Design

### Practice:

- Basics in Granulation (Wet & Dry Methods)
- Use of Compaction Simulator
- Understanding Compaction – Tablet Feed
- Determination of Tableability
- Understanding Compaction Tools
- Evaluation of Tablet Properties
- Preparation of Mini-Tablets & MUPS Tablets

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. Workshop contents may be modified due to unforeseen circumstances.

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**REGISTER:** Send completed registration form to [geanus@nus.edu.sg](mailto:geanus@nus.edu.sg)

