

## Tuesday 10 December: Scientific Conference, day 1

01dec19

### **8:00 Registration & Introduction**

8:30 **Stefan Luding** University of Twente

9:15 **Jan Wieringa** Unilever

### **10:00 morning break** (15 minutes)

10:15 **Mike Bradley** The Wolfson Centre  
for bulk solids handling technology

11:00 Barbara Schönfeld AbbVie Germany

11:30 Wouter K. den Otter University of Twente

12:00 Bastiaan HJ Dickhoff DFE pharma

### **Session 1: overview of mixing/demixing** (solid-solid systems)

Review on segregation in flowing and vibrated granular systems

An industrial view on blending and segregation of consumer goods

An industrial overview of causes, effects, consequences, solutions  
and the current state of art in material characterisation and problem prediction

In-line blend uniformity monitoring using near-infrared spectroscopy as PAT tool

Segregation of granular particles by mass, radius and density in a horizontal rotating drum

How to approach mixing for challenging low dose pharmaceutical formulations  
and how can continuous mixing play a role?

### **12:30 Lunch break** (60 minutes)

### **Session 2: current research**

13:30 **Benjy Marks** University of Sydney

14:15 Susantha Dissanayake The Wolfson Centre  
for bulk solids handling technology

14:45 Kasper van der Vaart University of Twente

segregation, mixing and breakage during granular flow

Cellular automata modelling for simulating segregation of wood pellets  
in silo filling and discharge

Granular buoyancy in the context of segregation of single large grains in  
dense granular flows

### **15:15 afternoon break** (15 minutes)

15:30 Theresa Hörmann RCPE, Graz

Production of tablets at RCPE's continuous wet granulation tableting line

16:00 flash presentations, followed by posters presentation and reception, **sponsored by GRANUTOOLS**

### **19:30 Forum dinner**

**notes:** 1-keynote presentations are highlighted in blue

2-Conference content and speakers placement are preliminary; final content/placement will be available one week before the Forum

3-to view the Wednesday programme (second day of the Scientific Conference), move your pointer over the bottom of this page

## Wednesday, 11 December: Scientific Conference, day 2

### **8:00 Introduction**

8:15 **Nico Gray** University of Manchester  
9:00 **Anthony Thornton** U. of Twente; MercuryLab

### **Session 3: Modelling & Simulation**

Particle segregation in dense granular flows  
Multiscale modelling of industrial granular materials

### **9:45 morning break (30 minutes)**

10:15 Anton Kulchitsky Coupi, Inc.  
10:45 Thomas Weinhart Twente/MercuryLab B.V.  
11:15 Marina Sousani DEM Solutions Ltd  
11:45 Clovis Maliska, Jr. ESSS Ltd, Brazil

IBC blending performance analysis depending on particle dimension & shape  
Coarse-graining with MercuryCG - from discrete particles to continuum fields  
Understanding the mechanistic behaviour of powder mixing with the use of DEM modelling & simulation  
Next-generation DEM technology using Rocky: some examples and case studies of blending, mixing and segregation in practical applications

### **12:15 Lunch break (75 minutes)**

### **Session 4: experimental aspects, case studies & applications**

13:30 **Paul Mort** Purdue University (ex P&G)  
14:15 Patrick Verolme Delft Solids Solutions  
14:45 Mike Bradley The Wolfson Centre  
for bulk solids handling technology

Powder flow and cohesion - balancing industrial and academic perspectives of product design and processing  
Determining the amount of segregation using analytical measurement methods  
Influences of flowability and permeability on air elutriation segregation of pharmaceutical powders

### **15:15 afternoon break (15 minutes)**

15:30 Naveen Mani Tripathi Granutools  
16:00 Olukayode Imole Hosokawa Micron B.V.  
16:30 discussion & conclusion

Physical characterization of powder blends with a focus on electrostatic properties  
Effect of process variables and material flow on filling consistency and final performance of lactose-based dry powder inhaler formulations

**17:30 End of the BSF2019-EU Scientific Conference; [please register for the Thursday Symposium!](#)**