第333回

化学システム工学専攻公開セミナー

Case Studies from an Academic Perspective in Switching from Batch to Continuous Pharmaceutical Drug Product Manufacturing

2018/12/5 (Wed.) 14:00–15:30

東京大学本郷キャンパス工学部3号館大会議室3（6B04号室）

Prof. Thomas De Beer (Left)

Prof. Ingmar Nopens (Right)

Department of Pharmaceutical Analysis

Ghent University, Belgium

Abstract : This presentation will focus on the drivers, needs and current trends as well as on the role of academia in switching from batch to continuous pharmaceutical drug product manufacturing. Besides giving an overview on the current developments in continuous manufacturing equipment technologies, also advancements in continuous manufacturing process development strategies and process monitoring and control methods will be presented. As a first case study, the development and potential use of a predictive platform for continuous direct compression processing through the use of extensive raw material databases will presented. In the second part of the presentation, focus will be given to continuous from-powder-to-tablet manufacturing via continuous wet granulation. In order to optimize and control continuous manufacturing through wet granulation, increased process knowledge is needed, which can be achieved by means of mechanistic modelling. An overview will be given on modelling of both the wet granulation as the consecutive drying step which is enhanced by dedicated and detailed data collection and interpretation. Finally, examples of PAT for on-line control of continuous from-powder-to-tablet manufacturing will be given.

連絡先

東京大学大学院工学系研究科化学システム工学専攻准教授　杉山弘和

内線：27227　E-mail：sugiyama@chemsys.t.u-tokyo.ac.jp