

## Special Issue

# Impacts of Constituent Material Variability on the Performance and Quality of Pharmaceutical Dosage Forms

### Message from the Guest Editor

The performance and quality of pharmaceutical dosage forms are dependent on both the properties of constituent materials (API and excipients) and the manufacturing process. Understanding the impact of material variability on dosage form performance and identifying critical material attributes are central to the quality by design (QbD) approach to drug development. Monitoring critical material attributes and adjusting process parameters, by the application of process models, is a key aspect of Quality by Control (QbC). The advent of drug product continuous manufacture, together with the pharmaceutical sector's evolution towards QbC and Pharma 4.0, has increased the need for an advanced understanding of how the variability of constituent material properties impacts drug product performance and quality. This Special Issue aims to summarize the latest advances in Process Analytical Technology (PAT) techniques to study variability in constituent pharmaceutical materials, present the latest findings as well the design of process models to control for material variability and finally elucidate future directions.

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### Guest Editor

Dr. Abina Crean  
University College Cork, Cork, Ireland

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### Deadline for manuscript submissions

closed (30 November 2021)



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*Pharmaceuticals*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[pharmaceuticals@mdpi.com](mailto:pharmaceuticals@mdpi.com)

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We hope to handle your contribution to *Pharmaceuticals* soon.

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### Editor-in-Chief

Prof. Dr. Amélia Pilar Rauter

Departamento de Química e Bioquímica (DQB) e Centro de Química Estrutural (CQE), Institute of Molecular Sciences, Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal

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