



Seminario

# Data Analytics & Modeling to Accelerate the Development of Pharmaceutical Products

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The Pharmaceutical Industry is continually seeking ways to accelerate the development of new medicines so that treatments are readily made available to patients worldwide. In this respect process modeling plays a vital role because it has the potential to drastically reduce the amount of experimentation required to develop safe and efficacious products as well as maximising process yields through the definition of effective monitoring and control strategies. In particular, the much larger volume of data generated by new technologies, including the progressive intake of continuous processes as opposed to traditional batch processes, offers many more opportunities for data modeling. This lecture will discuss a range of data analytics and modeling tools that are increasingly becoming commonplace in the pharmaceutical industry and reflect desirable skills to acquire for an engineer wishing to enter this sector. The lecture will present different cases of study inherent to the application of data driven and first principles modeling approaches, discuss the emerging opportunities associated to machine learning and the expectations of regulatory bodies in this area.

**giovedì 4 Aprile 2019, ore 11:00**

Aula Rh01, Dipartimento di Ingegneria Industriale, via Marzolo 9

**Dr. Simeone Zomer**

Ph.D. in Chemometrics & Data Modeling - University of Bristol - UK

M.Sc. in Environmental Sciences - University of Milan Bicocca - Italy

Dr. Simeone Zomer is a professional in quantitative analysis methods for pharmaceutical processes: risk mitigation, process monitoring, predictive performance and quality control. He is a Process Modeling Technical Manager, R&D GlaxoSmithKline (UK), working as a process technologies team leader for process modelling and scale transfer and the deployment on new-generation respiratory medicines. He currently works on projects for the development of multivariate models on Oral Solid Dose tablet manufacturing, the development of multivariate models on inhaled products, biopharmaceuticals cell line development across R&D and manufacturing to improve data accessibility, and as a team manager in drug development. He worked also as a Principal Scientist, R&D GlaxoSmithKline (UK) for the advanced data analytics for control strategy development and the data modelling of oral solid dose products.

Per informazioni rivolgersi al Dr. Pierantonio Facco ([pierantonio.facco@unipd.it](mailto:pierantonio.facco@unipd.it))