

***Essence of Bioinformatics and Systems Biology for Application of  
Quality by Design in Biopharmaceuticals***

*by*

**Çağrı Efe, PhD**

Quality by Design (QbD) is currently receiving increased attention from the biopharmaceutical community. As a result, most major biotech manufacturers are in varying stages of implementing QbD. Dr. Efe will give a brief overview of what QbD is and how bioinformatics and systems biology tools can be utilized to ease application of QbD in biologics production processes.

**Date:** 06.11.2017

**Time:** 13:00

**Location:** Molecular Biology and Genetics Building – Conference Room

Çağrı Efe received his BSc degree in 2001 from Department of Chemical Engineering at Boğaziçi University in İstanbul with specialization on biochemical engineering. He received his MSc degree from the same department in 2003. His MSc project was supervised by Prof. Dr. Betül Kırdar and had the title "Investigation of fermentation characteristics of respiratory deficient *S. cerevisiae* in chemostat fermentors". After his MSc study, he enrolled in Designer in Biochemical Engineering Program at Delft University of Technology and he was awarded with the degree of Professional Doctorate in Engineering (PDEng) in 2005. He conducted his PDEng project on "Feasibility of production of ethanol from sugar cane and sugar cane baggase". In 2006, he was appointed as Ph.D student by Delft University of Technology under supervision of Prof. Dr. L.A.M. van der Wielen. He conducted his research on "Recovery of succinic acid for biobased C4 bifunctional building block production" and received his Ph.D degree in 2011. Between 2010-2012, he worked as process development scientist for DSM Biologics, Groningen, The Netherlands. His main focus was on development, optimization and technology transfer of antibody production processes and application of Quality by Design principles in biopharmaceuticals production processes. During his most recent job, Çağrı was leading the process development team supporting design of personal care factory construction projects in Dubai, Konya and St Petersburg.