# conferenceseries.com

# 7<sup>th</sup> Euro-Global Summit on **TOXICOLOGY & Applied Pharmacology**

October 24-26, 2016 Rome, Italy

## Flexibility for automated cell based assays

#### Lena Schober, Moriz Walter and Andrea Traube

Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany

The use of automated systems for biological tasks is in great demand. Nevertheless, there are a lot of barriers at the moment limiting the successful application of automated systems. By the lack of flexibility and the demand for skilled computer scientists & engineers just the two main aspects stated by experts shall be mentioned. The Fraunhofer IPA has a strong background on automated cell culture technologies. The expertise, gained in the successful "tissue-factory" light-house project, let us rethink the overall process chain and overcome established principles. A concept that has a strong link to current industry 4.0 concepts and applies a seamless integration throughout the value-added chain will be presented. The main idea is to provide maximal transparency through digitalization and the design of smart automates. The interface to the customer-pharmaceutical company, regulatory board or consumer is the disruptive change with regard to state of the art attempts. Starting with the vision of full transparency down to the bench, the overall infrastructure and test processes need to be reconsidered.

### **Biography**

Lena Schober completed her Engineering degree in Biotechnology from University of Applied Sciences Esslingen in 2009. Since 2009, she is working as a Research Fellow for the Fraunhofer Society. She owns particular knowledge and practical experience in Cell and Tissue Engineering and focuses on the "Development of automated cell application systems for research and clinical use". She thereby contributed to the Fraunhofer Project "Mass customized organ replicates-tissue engineering on demand" and advanced the transfer of the biological process to the automated system, also referred to as "tissue factory", and performed the validation of produced *in vitro* systems.

lena.schober@ipa.fraunhofer.de

Notes: