

NEWSLETTER

DIG4BIO EU Twinning Project



TRAINING EVENTS

1 MODEL-BASED TECHNIQUES IN BIOENGINEERING WORKSHOP

This hybrid workshop was held from 29 to 31 October and provided a comprehensive overview of model-based techniques, including mechanistic models, data-driven approaches, and hybrid modelling. Participants explored their applications, benefits, and use, through practical hands-on exercises and case studies.



39 participants



Day 1: Mechanistic modelling
Day 2: Data-driven & hybrid modelling
Day 3: Case studies



Krist Gernaey (DTU)
Carina L. Gargalo (DTU)
Adem Aouichaoui (DTU)
Peter Jul-Rasmussen (DTU)
Xiyang Li (DTU)
Pau Cabañeros (Novo Nordisk)
Mariana Albino (DTU)
Rosa Haßfurter (TUB)

Model-based Techniques Hybrid Workshop

Krist Gernaey, DTU
Carina Gargalo, DTU

overview of model-based techniques (mechanistic models, data-driven approaches, hybrid modelling): hands-on exercises and case studies in real-world scenarios



29-31 October 2024
PROSYS, DTU
EU Project DIG4BIO

Join us!



2 LABORATORY AUTOMATION WORKSHOP

This virtual workshop was held from 26–28 November and provided a comprehensive overview on solutions for laboratory automation, including liquid handling sites for automated cultivations or analytics. Participants had the opportunity to learn about the possibilities, limitations and challenges of these systems, and were able to develop their own automated method on a liquid handling robot.



12 participants



Day 1: Introduction to Robotic Labs and Automation

Day 2: Lab Automation Software – Hands-on Experience

Day 3: Case studies



Annina Kemmer (TUB)
Nicolas Cruz (TUB)
Rosa Haßfurther (TUB)

Laboratory Automation Workshop

Annina Kemmer, Rosa Hassfurther, Nicolas Cruz, TU Berlin, Kiwi-BioLab

Introduction to robotic labs and automation; possibilities, limitations and challenges of these systems; development of an automated method on a liquid handling robot.

26-28 November 2024
Technical University of Berlin
EU Project DIG4BIO

Join us!

Logos: DIG4BIO, TÉCNICO LISBOA, DTU, TU, Kiwi BioLab, ISTID, and the European Union flag.

DISSEMINATION ACTIONS

Dig4Bio participated in the **European Researchers' Night** (Sep 27, 2024) engaging directly with the public. The Dig4Bio booth offered an interactive experience focused on “Physical Twins and Gene Therapy”, demonstrating how plasmid DNA is manufactured and plays a crucial role in the development of mRNA vaccines. A Lego vaccine factory captivated visitors from all ages, increasing public understanding of biomanufacturing processes and the importance of vaccines. This outreach activity significantly contributed to raising awareness about the societal impact of the project and promoting science communication at the community level.



DIG4BIO Team at the European Researchers' Night at Ciência Viva in Lisbon

PARTICIPATION IN CONFERENCES

Dig4Bio members have actively disseminated project outcomes at major international conferences. These participations not only highlighted the project's objectives but also positioned Dig4Bio as a key player in the biomanufacturing landscape. The three events were organised by members of the Dig4Bio research team (namely, Ana Azevedo – ICB, Krist Gernaey – ESBES, and Ana Fernandes-Plazgummer – BMWB).



DIG4BIO Team at ESBES



ICB VI and ICB VII Chairs

- **ESBES - EUROPEAN SYMPOSIUM ON BIOCHEMICAL ENGINEERING SCIENCES**

Copenhagen, 21-23 October 2024

- **ICB VI - INTEGRATED CONTINUOUS BIOMANUFACTURING**

Leesburg, USA, 20-24 October 2024

- **BIOMANUFACTURING WITHOUT BORDERS**

Lisbon, 28-29 November 2024



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