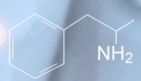
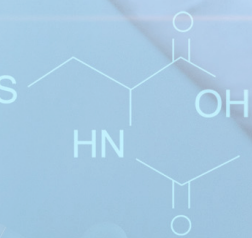


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SCTO Symposium 2022

Data science and artificial
intelligence in clinical research

15 June 2022, 10.00 – 16.15

Lugano, Università della Svizzera italiana (USI), Campus Est



Ente Ospedaliero Cantonale



Università
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Data science and artificial intelligence in clinical research

Data science, artificial intelligence (AI), and machine learning (ML) are buzzwords we come across nearly everywhere when looking at innovative technologies in medicine. This symposium addresses the use of these technologies specifically for clinical research to find out where we are today and where we should be heading.

To help clinical research professionals keep pace with developments in AI and ML, we will look at the main questions that arise in this context with contributions and practical examples from leading experts from Switzerland and abroad:

- To what extent is the use of AI and ML in clinical research **already a reality**?
- How can the use of AI and ML **benefit** clinical research? **What kind of clinical research** is needed to validate its use?
- What are the opportunities, challenges, and risks of these new approaches?
- With every new technology, the question of regulation inevitably arises. **How much regulation** is needed? What (new) **ethical questions** need to be answered?
- How do key **Swiss stakeholders** in clinical research currently address these new technological advances and how are they preparing for the future?

Putting ideas into practice

With our symposium, we aim to provide a platform for sharing experiences and facilitating discussions that allow us to identify action items such as training needs, the adaptation of processes, and potential legislative gaps.

9.30 Welcome coffee

10.00 **Welcome address and introduction**

Prof. Alessandro Ceschi, Director of the Clinical Trial Unit EOC and Deputy Chief of the Academic Education, Research and Innovation Area of the General Directorate at EOC

Prof. Christiane Pauli-Magnus, President of the SCTO

Prof. Giovanni Pedrazzini, Dean of the Faculty of Biomedical Sciences at Università della Svizzera italiana (USI)

Moderation

Prof. Cesare Alippi, Professor at the Faculty of Informatics and Pro-rector for Internationalisation at USI

Prof. Alessandro Ceschi, Director of the Clinical Trial Unit EOC and Deputy Chief of the Academic Education, Research and Innovation Area of the General Directorate at EOC

Keynote lecture: Setting the scene

10.15 **Data science and artificial intelligence: An overview of their role in and impact on today's clinical research and patient care**

Prof. Michael Bronstein, DeepMind Professor of Artificial Intelligence at the University of Oxford, UK

10.45 Q&A for keynote lecture

Session 1.1: Current clinical and translational research

11.00 **SPHYNCS: A prospective, national, multicentre cohort study to validate both well-known and novel disease markers and marker profiles**

Prof. Claudio L. A. Bassetti, Head and Chairman of the Department of Neurology at the Inselspital Bern and Dean of the Medical Faculty of the University of Bern

11.30 Coffee break

Session 1.2: AI and ML in clinical and translational research at the Swiss AI Lab IDSIA (Istituto Dalle Molle di Studi sull'Intelligenza Artificiale)

11.45 **Sleep, chronobiology, and perinatal depression: The LIFE-ON project**

Prof. Mauro Manconi, Head of the Sleep Medicine Unit at the Neurocenter of Southern Switzerland at EOC

Francesca Mangili, PhD, Researcher at IDSIA

12.15 **K-CLIER: A computational framework to exploit single-cell RNA-seq in clinical nephrology**

PD Dr Pietro Cippà, Medical Director of the Department of Medicine at EOC

Daniele Malpetti, PhD, Researcher at IDSIA

12.45 Q&A for session 1

13.00 Lunch break

Session 2: Ethics and regulation

14.00 **Where do we need regulations, and what is already in place or underway?**

Dr Alessandro Blasimme, Senior Scientist at the Health Ethics and Policy Lab at the Department of Health Sciences and Technology at ETH Zurich

14.20 **Ethical and legal challenges of artificial intelligence and big data**

Dr Susanne Driessen, President of swissethics

14.40 Q&A for session 2

Session 3: Different perspectives on the opportunities and risks of data science and AI

15.00 **Patient and public representative**

Steve Bourke, Co-founder of the RheumaCura Foundation

15.10 **Funding body**

Alexandre Costa Alencar, Senior Scientific Program Manager at the Rising Tide Foundation

15.20 **Industry/start-up**

Dalith Steiger, Co-founder and Managing Partner at SwissCognitive

15.30 **Medtech industry**

Dr Daniel Delfosse, Head of Regulatory Affairs and Innovation at Swiss Medtech

15.40 **Q&A for session 3**

16.00 **Closing remarks and networking reception**

Registration

You can register online by 30 May 2022 at www.scto.ch/symposium.

The SCTO Symposium will be recorded (video and audio), and the recording will be published on the SCTO's [website](#) after the event.

Registration fee

CHF 200	Regular
CHF 180	SwAPP and SGPM members
CHF 100	Students and CTU staff members
Free	CTU-EOC Lugano staff members and students enrolled at the Università della Svizzera italiana (limited seats) or in MD-PhD programmes

Organisation

Swiss Clinical Trial Organisation (SCTO)
Effingerstrasse 35
3008 Bern
Switzerland
Phone +41 (0)31 307 10 40
event@scto.ch, www.scto.ch

Location

Aula Polivalente (A0.01)
USI Campus Est, Via la Santa 1,
Lugano-Viganello

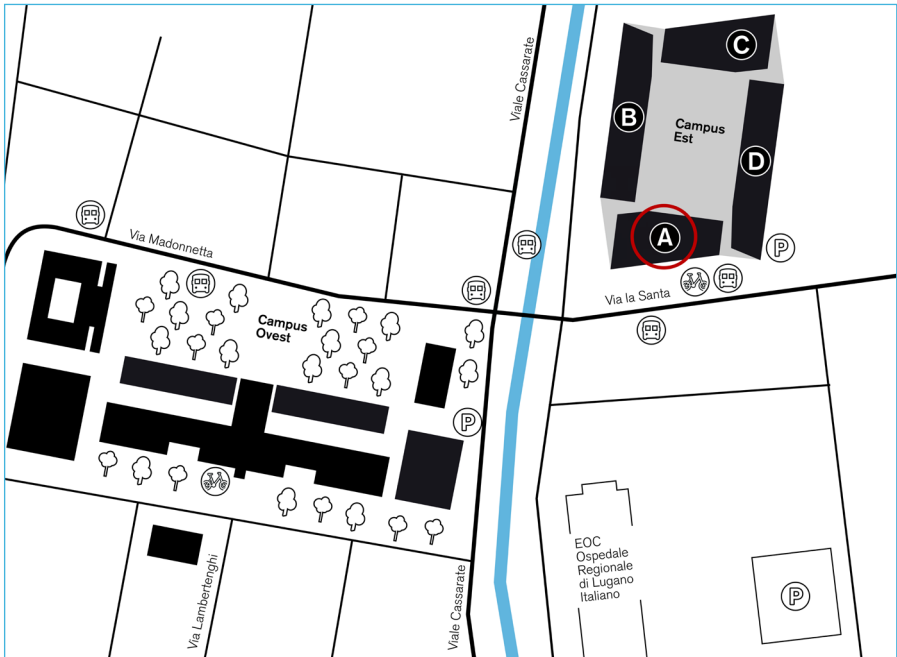
How to get there

Bus: Take bus number 5 or 6 to the stop Campus Universitario.

From the railway station, take bus number 6 to the stop Campus Universitario (8–10 minutes in normal traffic conditions).

Parking: Campus Est car park

Alternatively, use the nearby multi-storey car park at the EOC Ospedale Regionale di Lugano Italiano.



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