



**Spring Meeting of the Swiss Society
of Pharmacology and Toxicology**

Artificial Intelligence in Pharmacology and Toxicology

April 18, 2024, Inselspital Bern

Auditorium Langhans



Source: Aldona von Gunten, Bern



Info: www.swisspharmtox.ch

SSPT Spring Meeting 2024

Auditorium Langhans, Inselspital Bern

April 18, 2024

Organizing Team: S. von Gunten, University of Bern/ A. Jetter, University of Zurich/ S. Kellenberger, University of Lausanne/ G. Konstantinidou, University of Bern/ H. Kupferschmidt, Winterthur/ C. Lorez, Syngenta, Basel/ C. Samer, University of Geneva/ S. Sturla, ETHZ/ F. Tay, Seagen in Zug/ M. Traber, Roche Basel/G. Weitz-Schmidt, AlloCyte Basel

Sponsors: Swiss Academy of Sciences (SCNAT, deficit guarantee), Life Sciences Switzerland (LS2), Novartis Institutes for Biomedical Research (NIBR, dedicated exclusively to the NIBR Prize) and Roche

Credit points: SSCPT: 6 credit points, SGPM/SwAPP: 8 credit points

Deadline: Abstract submission and registration deadline: **March 18, 2024**
EXTENDED: April 1, 2024

PROGRAMME

Registration/poster set-up
08:00 - 09:00

Welcome and opening remarks
09:00 - 09:10

Caroline Samer, University of Geneva, SSPT President

Session I: AI in target identification and drug discovery
09:10 - 10:35

Chairs: Gabriele Weitz-Schmidt, AlloCyte, Basel & Stephan Kellenberger, University Lausanne

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|---------------|--|
| 09:10 - 09:45 | Keynote I
Gisbert Schneider, ETH Zurich
Drug design with machine intelligence |
| 09:45 - 10:10 | Joana Pereira, University of Basel
Uncovering new protein families and folds at unprecedented scales |
| 10:10 - 10:35 | Vincent Zoete, University of Lausanne
SwissDrugDesign |

Coffee break & poster viewing
10:35 - 11:05

Session II: AI in toxicology
11:05 - 12:20

Chairs: Gina Montoya Parra, Nestlé Research & Alexander Jetter, University of Zurich

- 11:05 - 11:30 **Igor Tetko, Helmholtz Munich**
AI meets toxicology
- 11:30 - 11:55 **Jitao David Zhang, F. Hoffmann La-Roche Basel**
Towards intelligent benefit-risk assessment of drug candidates
- 11:55 - 12:20 **Maximilian Brackmann, Federal Department of Defence, Spiez**
Generative Artificial Intelligence in the Life Sciences: Perspectives of the Security Sector

Buffet lunch/poster viewing
12:20 - 13:50

12:20 - 13:05 poster 1-15 / 13:05 - 13:50 poster 16f

Session III: Contributor talks/ AI in medicine (Keynote II)
13:50 - 15:05

Chairs: Caroline Samer, University of Geneva & Georgia Konstantinidou, University of Bern

Contributor talks (selected from abstracts)

- 13:50 - 14:05 **George M. Ramzy, University of Geneva**
Platform combining mathematical modeling and patient-derived organoids for personalized treatment for colorectal carcinoma patients
- 14:05 - 14:20 **Frank Bringezu, Merck Healthcare KGaA, Darmstadt, Germany**
Virtual Control Groups - towards replacement of concurrent control animals
- 14:20 - 14:35 **Simone Falco, University of Bern**
Understanding the role of cardiolipin in the response of lung cancer cells to oxidative stress
- 14:35 - 15:10 **Keynote II**
Christian Lovis, University Hospitals of Geneva
Transition towards a semantic-centric informational landscape

Coffee break
15:10 - 15:40

Session IV : AI in medicine (continued)

15:40 - 16:55

Chairs: Fabian Tay, Seagen in Zug & Stephan von Gunten, University of Bern

15:40 - 16:05

Henock Yebyo, University of Zurich

From single disease reductionist research to informed machine learning: A new research paradigm for multimorbidity

16:05 - 16:30

Stavroula Mougiakakou, University of Bern

Artificial intelligence - powered solutions for better diagnosis, personalized treatment, and dietary assessment

16:30 - 16:55

Katrin Cramer, Swiss Institute of Bioinformatics, Basel

The SPHN data-enabling framework: From routinely collected healthcare to FAIR research data

Awards ceremonies

16:55 - 17:05

NIBR prize (for best poster and best contributor talk) (Host: Hugo Kupferschmidt, Winterthur)

SSPM prize (for best poster in pharmaceutical medicine) (Host: Martin Traber, Roche Basel)

Closing remarks

17:05 - 17:10

Caroline Samer, University of Geneva

17:20 - 18:05

SSEP General Assembly (for members of the SSEP)