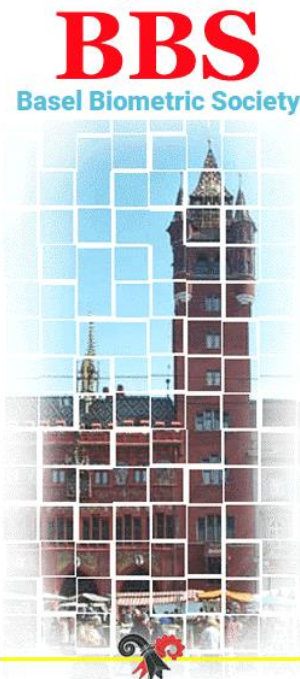


**Final announcement of BBS Seminar:  
AI in Clinical Research and Drug Development  
and BBS General Assembly**



**Wed, 25 September 2024, 13:00-17:45  
D-BSSE (ETH) & virtual**

The application of artificial intelligence (AI) has generated significant excitement due to its potential to automate processes and extract valuable insights from complex datasets. This seminar offers an introduction to AI methodologies, a discussion of the benefits and limitations of AI solutions, and a series of informative case studies. The program features eminent statisticians, data scientists, and medical doctors from academia, pharmaceutical companies, university hospitals, and regulatory agencies.

Participation is free of charge. Please register via the following link [HERE](#).

**Location (in-person attendance may be restricted because of room size):**  
Department of Biosystems Science and Engineering (D-BSSE) ETH, BSS building E27, Klingelbergstrasse 48, Basel ([directions](#))

	<b>Session 1: AI for automation</b> - chair: Marcel Wolbers (Roche)
<b>13:00</b>	<b>Welcome &amp; scene setting</b> - Lilla di Scala (Johnson&Johnson) & Marcel Wolbers (Roche)
<b>13:10</b>	<b>Generative AI: Transforming automation in biostatistics</b> - Ercan Sükür (Roche)
<b>13:40</b>	<b>Case studies on automation</b> <ul style="list-style-type: none"><li>- <b>Assessing Generative AI's capability in systematic literature reviews, a case study</b> - Cindy Tong &amp; Nikos Takatzoglou (Johnson &amp; Johnson)</li><li>- <b>Using AI agents to optimize the EU HTA process: An industry perspective</b> – Seye Abogunrin (Roche)</li><li>- <b>A deep learning approach to private data sharing of medical images using conditional generative adversarial networks</b> - Sajanath Subramaniam (Novartis)</li></ul>
<b>14:25</b>	<b>Coffee Break</b>
	<b>Session 2: AI for science &amp; regulation</b> - chair: Giusi Moffa (University of Basel)
<b>14:50</b>	<b>Leveraging generative AI approaches for small data settings in clinical research</b> – Harald Binder (University of Freiburg)
<b>15:20</b>	<b>Case studies</b> <ul style="list-style-type: none"><li>- <b>Unlocking the Code: Harnessing Machine Learning to Predict Treatment Resistance in Lung Cancer Patients</b> - Fabian Kreimendahl (Johnson &amp; Johnson)</li><li>- <b>A deep learning model for automated total metabolic tumor volume quantification in patients with FDG-avid lymphomas</b> – Tao Xu (Roche)</li><li>- <b>Benefits, challenges and development of clinical AI-products in Neuroradiology</b> - Kristine Blackham (University Hospital Basel)</li></ul>
<b>16:05</b>	<b>“Regulator-in-the-loop”:</b> How to integrate new ML based technologies in the regulatory landscape - Nicolas Perez (Swissmedic 4.0)
<b>16:35</b>	<b>Panel discussion</b> with all speakers, moderated by Jenny Devenport (Roche)
<b>17:05</b>	<b>BBS general assembly (until 17:45)</b>

**Organizing committee:** Marcel Wolbers (Roche), Jenny Devenport (Roche), Dominik Heinzmann (Roche), Kristina Weber (Roche), Lilla Di Scala (Johnson & Johnson), Marco Cattaneo (University Hospital Basel), Andreas Ziegler (Cardio-CARE Davos), Jack Kuipers (ETH Zurich - D-BSSE), Giusi Moffa (University Basel) on behalf of the BBS. **Contact for questions:** [marcel.wolbers@roche.com](mailto:marcel.wolbers@roche.com).

## Bio-sketches of all speakers

**Ercan Sükür** is a seasoned scientist specializing in bioinformatics, pharmaceutical development, and data science. He holds degrees in Bioinformatics, Pharmaceutical Engineering, and Data Science AI. His tenure at Roche has seen him develop data automation tools, lead technology projects, and mentor colleagues. Recognized for his contributions to AI and data automation, he is also a frequent conference presenter. Ercan's research emphasizes advancing clinical data search methodologies using machine learning and AI and creating AI tools for pharmacometricians.

**Cindy Thong** is a statistician by training with extensive experiences in Clinical trials and RWEs, Cindy Tong began her career in the Pharmaceutical industry as a R&D biostatistician and now is the Director of Health Economics and Market Access Analytics, leading RWEs and Value Based Healthcare projects in J&J Medical Devices. She is passionate about utilizing novel data science and statistical methods to solve real world business questions.

**Nikos Takatzoglou** has over a decade of experience in Health Economics and Market Access and leads Key Global HEMA initiatives in Generative AI & Machine Learning at Johnson & Johnson MedTech. He has presented at international forums like ISPOR, is pursuing a PhD focused on AI-driven HTA decisions, and holds advanced degrees in HTA, Data Analytics, and Business.

**Seye Abogunrin** is a Global Access Evidence Lead at Roche. In his role, he is an HTA and technology innovation leader who is responsible for identifying and implementing artificial intelligence and similar technologies for process optimization in matters related to health economics and outcomes research at Roche. He is a disruptive technology-in-healthcare advocate and strategist with interests in artificial intelligence, extended reality and block-chain technologies.

**Sajanth Subramaniam** is a Senior Expert Data Scientist at Novartis. He holds a MSc in Physics from ETH Zürich (2019) with a focus on theoretical physics with a thesis on deep learning applications in cosmology. He is at Novartis since 2020, worked on deep learning applications in medical imaging, high performance computing applications in pharma, recently interested in LLM applications in the context of clinical and pre-clinical data curation.

**Harald Binder** is the Director of the Institute of Medical Biometry and Statistics (IMBI) and Speaker of the Collaborative Research Center “Small Data” at the University of Freiburg. He has a PhD in Statistics from LMU Munich, and held prior positions in Regensburg and Mainz.

**Fabian Kreimendahl** holds a Ph.D. in Biostatistics and focuses his research on Artificial Intelligence and Machine Learning in medical research. He has over ten years of experience in the pharmaceutical industry. His academic career includes research visits to Utrecht, Montréal and Dresden. He has held several roles where he led and coordinated biostatistics and data management in clinical research. In his current role at Johnson & Johnson Innovative Medicine he is responsible for biostatistics and data management of clinical trials in Germany across indications with a focus on oncology and dermatology.

**Tao Xu** is currently a Principal Data Scientist in the PD Data Science at Roche Pharma. In his role as a statistician, he is collaborating with an imaging algorithm development team at Roche

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to develop and validate an imaging algorithm to automate the segmentation of lesions and quantification of the lesion volumes from PET/CT scans of lymphoma patients. Before joining Roche Pharma, Tao worked as a biostatistician at Roche Diagnostics supporting the development of IVD instruments and assays. Tao received his PhD in Epidemiology from LMU.

**Kristine Blackham** was board certified in 2004 by the American Board of Radiology and completed subspecialty training for neuroradiology and interventional neuroradiology in 2006. Currently and since 2015, she is a senior physician in the Clinic for Radiology and Nuclear Medicine, University Hospital of Basel. Special interests include pedagogy for medicine education, the role of women in health care and leadership, and volunteer work with American imaging societies. Currently, she is an associate editor for the American Journal of Neuroradiology (AJNR).

**Nicolas Perez** is a Data Scientist at Swissmedic. After obtaining his Ph.D. at Johns Hopkins University, he worked in Clinical Machine Learning at University hospital Zürich developing multimodal models for radiology, ML-based optimization algorithms for scheduling and transformer-based architectures for image processing. His focus is in innovation and user-center ML based applications at Swissmedic and currently develops multiple applications to optimize internal operations including automated market oversight, medicament recognition from images, document similarity and GenAI based tools.

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