European Statistical Forum

Statistical Methodology in Precision Medicine and the role of Artificial Intelligence

Date
14 November 2023

Language
🇬🇧
English

Location
Munich, Germany

ABOUT

Precision medicine, so called personalized medicine, is *"an approach to tailoring disease prevention and treatment that takes into account differences in people's genes, environments and lifestyle"*, according to FDA definition.

Innovative clinical trial designs, for example, platform trials, basket/umbrella trials are developed to support the development of precision medicine. Master protocol, one overarching protocol that allows simultaneously evaluation of multiple therapies or/and multiple diseases, has made these innovative clinical trial designs more implementable and is becoming to supplant classic trials, phase I, II, and III protocols in some therapeutical areas (e.g., oncology).
In addition, precision medicine revolves around a multitude of different data sources and types (e.g., 'omics' data, real world data (RWD), which ask for more advanced statistical methodologies.

This opens the door for the application of Artificial intelligence (AI)/Machine learning (ML) to unlock the potential of these data and advance precision medicine.

The 14th edition of European Statistical Forum (ESForum) aims to inform on current status of methodology and regulatory aspects and to discuss the future direction of clinical trial design in the era of precision medicine and to debate the role of AI/ML and RWD in the rapidly changing landscape of clinical trial designs.

This will include presentations focusing on:

- Current landscape of clinical trial designs in the era of precision medicine
- Regulatory views on methodology used in precision medicine
- Recent development of AI/ML in advance precision medicine development
- The role of RWD to fuel precision medicine
- Case studies and practical approaches

Scientific Board

Jens-Otto Andreas - *SSI Business Operational Excellence Senior Lead* at UCB Biosciences
Lisa Comarella - *Senior Director Biostatistics* at Alira Health
Marco Eigenmann - *Principal Biostatistician* at Novartis
Victoria Strauss - *Therapeutic Area Methodology Chapter Head* at Boehringer Ingelheim

Who should attend?

This statistical conference is addressed to statisticians, pharmacometricians, data scientists, regulatory affairs specialists, academia and other experts interested in the field belonging to: Pharmaceutical, and Biotechnology companies, CROs, Universities/Hospitals, Academic Research.

PROGRAMME

14 November 2023	
08:30 **08:50**	**Registration**
08:50 **09:00**	**Welcome from the Scientific Board**
09:00 **09:40**	**Opportunities in Precision Medicine: Creating Fair Machine Learning Systems with Real World Data** **Kathryn Rough** Associate Director, Center for Advanced Evidence Generation at IQVIA
09:40 **10:20**	**Precision Medicine: a Whistle-Stop Tour before Designing a Trial with a Biomarker Threshold Optimization!** **Guillaume Desachy** Statistical Science Director at AstraZeneca
10:20 **10:50**	**Coffee Break**

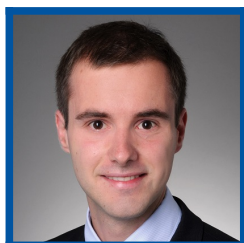|	
10:50 11:30	**Precision Medicine using Polygenic Scores: Leveraging Large-scale Genetic Studies to Enhance Clinical Trials** **Oliver Pain** Biostatistician, SSI Predictive Analytics at UCB Pharma
11:30 12:10	**The Population-wise error rate for Cinical Trials with Multiple intersecting Sub-populations** **Werner Brannath** Faculty of Mathematics and Computer Science & Competence Center for Clinical Trials Bremen at University Bremen
12:10 13:10	**Networking Lunch**
13:10 13:50	**Quantifying Uncertainty on Machine Learning-Based Predictive Biomarker Discovery** **Konstantinos Sechidis** Associate Director at Novartis Pharma AG
13:50 14:30	**AI/ML and Omics Methods and Applications for Precision Medicine** **Lin Li** US Head of Statistics and Data Science at PharmaLex
14:30 15:00	**Coffee Break**
15:00 15:40	**How much Training Data is needed to Train a Learner? - A Heuristic Approach** **Rajat Mukherjee** VP Advanced Statistics and Data Science at Alira Health
15:40 16:20	**Interactive Panel Session: Precision Medicine and the Role of ML/AI**
16:20 16:30	**Conclusion**

SPEAKERS

Scientific Board
Jens-Otto Andreas
SSI Business Operations Excellence
Senior Lead at UCB Biosciences
GmbH

Scientific Board
Lisa Comarella
Senior Director Biostatistics at
Alira Health Biometrics

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Victoria Strauss
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Speaker
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Faculty of Mathematics and Computer Science & Competence Center for Clinical Trials Bremen at University Bremen

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Statistical Science Director at AstraZeneca

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REGISTRATION FEE

€ 590,00* Early Bird fee until 02 November 2023
€ 710,00* Ordinary fee
€ 410,00* Freelance, Academy, Public Administration

Fee includes: seat at the conference, copy of presentations of Speakers who allow the distribution, networking lunch, coffee breaks, organisational office assistance, certificate of attendance.

* for Italian companies: +22% VAT

USEFUL INFORMATION

The conference will take place at:

NH Collection München Bavaria
Arnulfstr. 2, 80335 Munich

The NH Collection München Bavaria is located in the city center next to the main train station, and only steps away from the old town, it offers easy access to all of Munich, making it an ideal base for business visitors.

From the airport
Train: Take the S1 or S8 from the Munich Airport, which departs every 5 – 10 minutes, to get to the central station "München Hauptbahnhof". From there, please alight in the direction of Arnulfstraße. The hotel is located on the opposite side of the street. Total trip time is around 45 minutes.
Taxi: It is a 30-40 minutes trip

From the train station
München Hauptbahnhof: From there, please alight in the direction of Arnulfstraße. The hotel is located on the opposite side of the street.
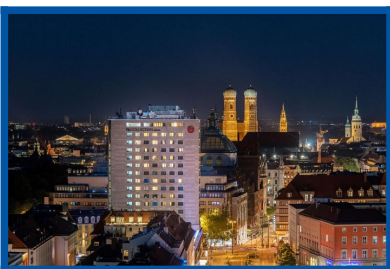Closest metro station: München Hauptbahnhof

COVID-19
LS Academy is aware of the evolving impact of COVID-19 and is committed to offering safe and secure face-to-face courses and conferences. From physical distancing, protect, detect, cleaning and hygiene. LS Academy ensures that all our events are conducted in accordance with official government guidelines and regulations, understanding that these measures may vary and change as the situation evolves.

CONFERENCE VENUE

NH Collection München Bavaria
Arnulfstr. 2
80335 Munich – Germany