DAY ONE

Time	Event
7:30A	Registration/Breakfast
8:00A	**Welcome & Introduction** Chair: **Larry Shen PhD.** *(Chair, BSSC)*
8:15A – 12:30P	**Keynote Session Day 1** (Chair: **Gajanan Bhat PhD.**) **Harpreet Singh, MD, CMO, Precision for Medicine**; "Innovating Clinical Trial Analysis for a New Era of Therapeutics: Perspectives from a Former FDA Oncology Director" **Artem Andrianov, CEO, Cyntegrity**; "Strategic combination of unsupervised and supervised Centralized Statistical Monitoring"

Daniel Bradbury, Chairman & Co-founder Equillium, Inc; "Biotech Market Dynamics and Macro Drivers"

Time	Event
10:30A	**Break**
10:45A – 12:30P	*Q&A and Panel Discussion:* Investing in the next generation of therapies: Trends shaping the global drug development landscape **Participants:** Harpreet Singh, Artem Andrianov, Daniel Bradbury, JeHi An **Moderated** by: Gajanan Bhat
12:30P – 1:30P	**Lunch & Poster Session (continue throughout the break)**

1:30 – 3:00P: Parallel Tracks of Scientific Program

Clinical and Statistics
Venue: Bay Laurel Central + South Room

Real World Evidence/Causal Inference
[Chair: Julia Ma & Kitty Guo]

Mark van der Laan
Super-Efficient Estimation of Average Treatment Effect based on Randomized Controlled Trial Augmented with External Controls or Observational Study

Manoj Khanal
Augmenting Small Control Arms in Oncology Trials: A Bayesian Framework for Health Technology Assessment

CG Wang
Quantifying Effective Sample Size in Clinical Trials Using Real-World Data

Roman Torgovitsky
The hidden diseases of evidence generation: Diagnosing methodological failure in clinical trials and RWE

Data Science and Analytics
Venue: Bay Laurel North Room

Panel Discussion: Executive Insights: AI/ML Transforming the Clinical Research Landscape
[Chair: Adrian Hsing]

Rick Landin PhD
CEO Telperian

Steve Rosenberg
CEO uMotif

Artem Andrianov PhD
CEO Cyntegrity

Ming Tan PhD
Georgetown Univ. Medical Center

Academic Research
Venue: Sequoia Room

Innovative Theoretical Developments
[Chair: Eric Kawaguchi]

Xiaoqian Liu
Transfer learning for survival-based clustering of predictors with an application to TP53 mutation annotation

Jeffrey Zhang
CiteSure: Retrieval-Augmented Large Language Models for faithful biomedical citation recommendation

Eric Kawaguchi
Probability-scale residuals for interval censored data

Gang Li
Joint modeling with multiple biomarkers

3:00 – 3:15P: Break (Poster session Ongoing)

3:15 – 4:45P: Scientific Program Continues

Dose Optimization
[Chairs: Ying Yuan & Bo Huang]

Yong Zang
Seamless optimal designs integrating proof-of-concept with dose optimization

Ying Yuan
Backfill and optimal randomized selection design for dose optimization

Yingqi Zhao
Enhancing dose optimization: leveraging BOIN and backfill strategies in Phase 1 oncology trials

Linda Sun
Oncology dose optimization under Project Optimus: How many doses and how many patients?

AI and Machine Learning Innovations in Clinical Trial Design
[Chairs: Yefei Zhang, Weining Shen]

Brian Hobbs
Applying ML to discern predictive from prognostic biomarkers and simple solutions for design

Michael Kane & Arvind Rao
Integrating Transformer Models to Simplify Clinical Trial Design and Resource Efficiency

Cheng Su
AI for trial design & execution – enabling adaptive, efficient, data-driven studies

Shibing Deng
Advancing tumor response assessment: Integrating AI-assisted RECIST in clinical trials

Modeling Genetic Data
[Chair: Liora Mayats Alpay]

Min Zhang
Unraveling gene regulation to advance precision medicine

Ruowang Li
A pre-train and fine-tune framework for adaptively boosting genetic risk prediction

Lucy Annie Dolmadjian
Statistical methods for local heritability estimation using GWAS summary statistics

Annie Qu
Covariate-elaborated robust partial information transfer with conditional spike-and-slab prior

Evening Reception (5:00 – 6:30P)

DAY TWO

Time	Event
7:30A	Registration/Breakfast
8:15A – 11:00A	**Keynote Session Day 2** (Chair: **Gajanan Bhat PhD.**) **Chito Hernandez PhD, Founder StillWave, UCSD Professor of Practice;** "From Data Busboys to Strategic Influencers: How Biostatisticians Lead in the Age of AI" **Daniel Gillen PhD, Chancellor's Professor and Head of Statistics, UCI** "Are Futility Bounds Futile?"

Ying Lu PhD, Stanford University, Co-Founder Dashu "Transforming Clinical Trials: Harnessing Real-World Data for Optimized Design and Analysis"

Time	Event
10:30A – 10:45A	**Poster Award Ceremony**
10:30A – 11:00A	**Break**

11:00A – 12:30P: Parallel Tracks of Scientific Program

Clinical and Statistics
Venue: Bay Laurel Central + South Room

Adaptive Designs
[Chairs: Lingyun Liu & Jessica Lim]

Satrajit Roychoudhury
Evaluating longitudinal treatment effects for Duchenne muscular dystrophy using dynamically enriched Bayesian small sample, sequential, multiple assignment randomized trial

Ruitao Lin
Novel adaptive factorial designs for evaluating contributions of components for combination therapies

Evelyn Zheng
Biomarker adaptive design with enrichment and SSR

Andrew Yan
Masked SSR

Data Science and Analytics
Venue: Bay Laurel North Room

Technology Applications from Vendors Implementing AI Solutions
[Chair: Vadim Tansyura]

Artem Andrianov
Operationalizing AI within RBQM. From reactive oversight to predictive prevention

Matthew Purri
Leveraging AI to accelerate medical data cleaning: A comparative study

Henry Liu
Technology application from vendors implementing AI solutions

Academic Research
Venue: Sequoia Room

Methdological Considerations in Preclinical and Clinical Studies
[Chair: Arnab Chowdhury]

Joycelynne Palmer
The evolving role (contributions) of the Biostatistician in an AI-driven drug development era

Dongyun Yang
Application of Bayesian approaches in early development clinical trials, Real-World Experience

Ankita Mohapatra
Data Science in biosensing: Predicting biological affinity and activity through machine learning

Arnab Chowdhury & Jianying Zhang
Balancing rigor and feasibility: Sample size strategy in pre-clinical studies

12:30 – 1:30P: Lunch & Poster Session (continue throughout the break)

1:30 – 3:00P: Scientific Program Continues

Clinical Trial/Oncology/Business related
[Chairs: Li Huang]

Jessica Lim
TransCelerate clinical data sharing: Benefits of shared control arms from clinical trial data

Kent Kaprowicz
Data Monitoring Committees in the age of AI: optimizing interim analyses and processes

Kevin Lee
Reimagine biometrics works with AI agents and agentic workflow

Zhenjun Ma
AI Teammates in clinical development: Integrating clinical insights with statistical innovations

From Complexity to Clarity: AI/ML Methods for High-Dimension Data
[Chair: Rita Lopatin]

Jian Kang
Split conformal prediction for uncertainty quantification in brain-computer interfaces

Sam Gross
Training cancer classifiers on high dimensional data with reliable performance estimates

Jeff Palmer
Role of statistics in driving translational development using diverse data sources (wearables, omics, labs)

Gregory Alexander
Statistical considerations for generating confirmatory evidence from high dimensional data

Modeling Framework and Applications in Lifescience Data
[Chair: Olga Korosteliva]

Salil Koner
Integrative dynamic prediction of Parkinson's disease using multivariate functional joint models

Zhe Fei
Novel knockoff generation and importance measures with heterogeneous data via conditional residuals and local gradients

Yuzhou Chen
LLM-based multi-agent system and simplicial self-supervised learning model for regional cancer prevalence estimation

Suqi Liu
Representation learning to advance knowledge integration in health sciences

3:00 – 3:15P: Break (Poster session Ongoing)

3:15 – 4:45P: Scientific Program Continues

Advanced Trial Designs
[Chair: Yifei Shi]

Pantelis Vlachos
Simulation-based optimization of adaptive designs for the evaluation of Bayesian and frequentist analysis options for an oncology study with non-proportional hazards assumptions

Leiwen Gao
Boosting the power of Hybrid Design when crossover occurred in historical control data

Junyi Zhou
Exploration of small-sample, sequential, multiple assignment randomized trial (snSMART) designs in rare disease settings

Brian Beus:
Bridging biostatistics and regulatory compliance: Endpoint selection for accelerated approvals

AI/ML Innovations in Mobile Health: From Digital Biomarkers to Real-World Evidence
[Chair: Adrian Hsing, Peter Zhang]

Ming Tan
Agentic robust causal estimation in randomized and nonrandomized studies

Louise Liu
Empowered by AI – People & business in the AI era

Peter Zhang
Digital medicine: Statistical and AI/ML frameworks Abilify MyCite

Ran He
The Application of AI/ML in Clinical Trials – Statistical and Regulatory Challenges

Wessam Sonbol
Integrating wearable technologies into clinical trials: Best practices for regulatory and statistical considerations

Representation and Inference in Complex Health Data: Statistical, Functional, and Deep Learning Perspectives
[Chair: Jingling Zou]

Jian Chen
From clinical intent to deterministic inference: Knowledge-driven neuro-symbolic architectures

Damla Senturk
Multilevel Multivariate Functional Principal Component Analysis of Evoked and Induced Event-Related Spectral Perturbations

Rachel Lathrop
Implementing Self-Service Virtual Assistants: Leveraging AI to Achieve Organizational Efficiency and Digital Transformation

Jingjing Zou
Tailoring self-supervised deep learning models for evaluating sedentary behavior interventions

Symposium concludes – Thank you note from Nicole Li, Chair-Elect 2026, BSSC