2025 Biostatistics Symposium of Southern California (BSSC)
Transforming Life Sciences through Data Analytics, Innovation & Collaboration

21 Feb 2025 Day 1 (Combined Session)

7:30 - 8:00A: Registration and Breakfast

8:00 - 8:15A: Welcome and Introduction by Larry Shen PhD, Chair, BSSC

8:15A - 12:30P: Keynote Session Day 1 (Chair: Gajanan Bhat PhD)

Susan Abushakra MD, Development of new medicines for Alzheimer's disease

Joycelynne Palmer PhD, Changing landscape of early-phase cell and immunotherapy clinical trials in oncology

10:15 - 10:30A: Break

Allen Keel, Needs-driven Innovation: what drives new product categories

Q&A and Panel Discussion: Technological advancement and productivity in drug/device development
Participants: Susan Abushakra, Peter Chang, Allen Keel, Joycelynne Palmer, Adrian Hsing - Moderated by: Gajanan Bhat PhD

12:30 - 1:30P: Lunch

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

Track 1: Clinical and Statistics	**Track 2: Data Science and Analytics**	**Track 3: Academic Research**
Adaptive Designs (Chair: Nicole Li)	**Statistical Learning in Structured Data Analysis (Chair: Weining Shen)**	**Statistical Challenges in Clinical and Translational Research (Chair: Jessica Jaynes)**
Linda Sun, Consideration framework of enrichment designs: leveraging early data for late-phase success	Michele Guindani, Clustering computer mouse tracking data via informed priors	Michelle Nuno, Incorporating the patient voice in pediatric oncology trials
Yang Song, Dose switching after interim dose selection in seamless two-stage adaptive designs	Hernando Ombao, Statistical considerations in designed experiments using brain imaging	Sam Behseta, Bayesian nonparametric inference for unordered bivariate time to event data

Jeen Liu, Seamless Phase 2/3 drop-the-loser design for oncology studies	Peter Mueller, Common atoms mixture models in two biostatistical inference problems	Valerie Poynor, Joint presentation with Sam Behseta
Erik Rasmussen, Dose intra-subject escalation to an event (DIETE): A new method for phase 1 dose finding utilizing systematic intrasubject dose escalation with application to T-cell engagers	Lexin Li, Generalized Liquid Association Analysis for Multimodal Data Integration	Ting Ye, From estimands to robust inference of treatment effect in platform trials
3:00 - 3:15P: Break		
3:15 - 4:45P: Scientific Program Continues		
In honor of Professor James Presss: Advancing Bayesian Methods in Clinical and Life Sciences (Chair: Xinping Cui)	**Modern Analytic Tools and Process (Chair: Yang Zhang)**	**Advanced Statistical Methods and Data Integration (Chair: Esra Kurum/Weixin Yao)**
Seongho Song, Bayesian analysis of joint modelings with longitudinal model and time-to-event data	Cheng Su, Key Elements for successful risk-based monitoring implementation	Alfonso Landeros, MM recipes for parallel optimization algorithms
Zhen Xiao, Bayesian methods in pediatric study planning	Jingjing Ye, Value added AI in drug development	Ana Maria Kenney, Distilling causal effects: Stable subgroup estimation via distillation trees in causal inference
Volodymyr Minin, Forecasting healthcare demand during epidemic surges of pathogen variants capable of immune escape	Bhavin Busa, TFL Viewer: Streamlining TFL review and approval	Babak Shahbab, Data integration across heterogeneous subjects
Marc Adam Suchard, Approximate gradients for Bayesian phylogenetics and the origins of SARS-CoV2	Kuolung Hu, Integrated safety analyses in drug marketing applications	Lin Liu, Statistical challenges in a Case-Cohort Study on post-polypectomy surveillance colonoscopy and colorectal cancer
5:00 - 6:30P: Reception		

22 Feb 2025 Day 2 (Combined Session)		
7:30 - 8:15A: Registration and Breakfast		
8:15A - 11:00A: Keynote Session Day 2 (Chair: Gajanan Bhat PhD)		
Bill Rote MD, GLP-1 agonists - an overnight success		
David Zhang PhD, Pursuing a broader role as a statistician		
Ronald L. Wasserstein, Moving to a world beyond p<0.05		
10:30 - 11:00A: Break and Poster Award Ceremony		
11:00A - 12:30P: Parallel Tracks of Scientific Program		
Track 1: Clinical and Statistics	**Track 2: Data Science and Analytics**	**Track 3: Academic Research**
Medical Device/Diagnostics/Clinical Development (Chair: Xingyu Gao)	**Artificial Intelligence in Biomedical Studies (Chair: Sunil Gupta)**	**Modern and Innovative Methods in Analyzing Genomic and Neuroimaging Data (Chair: Eric Kawaguchi)**
Hui Wang, Quality concerns of use of electronic health records data in clinical research	Fanny Perraudeau & Giorgio Saladino, AI in biostatistics: when your models get creative	Vivian Li, Harmonizing single-cell genomic data with individual-level covariate information
Yanglu Zhao, Confounding adjustment: Dos and Don'ts	Jian Kang, Bayesian machine learning for brain-computer interfaces	Christina Ramirez, The epigenetics and immunology of aging and HIV
Shirley Liao, Win ratio noninferiority trial design	Xiaowu Dai, Kernel ordinary differential equations with applications to bioscience	Matheus Guerrero, Exploring the brain's extreme events: Insights from EEG data using extreme value theory
Jin Wang, Noninferiority design and analysis with z-score benchmark	Ruishan Liu, AI for Precision Medicine and Clinical Trials	Andrew Holbrook, Evaluating longitudinal structural imaging-derived phenotypes as biomarkers for Alzheimer Disease

12:30 - 1:30P: Lunch		
1:30 - 3:00P: Scientific Program Continues		
AI/ML Applications and Big Data Modeling in Pharmaceutical and Genomic Research (Chair: Jingyuan Yang)	**Causal inference and clinical trial design (Chair: Rita Lopatin)**	**Wearable Device Data Analytics and Learning (Chair: Esra Kurum)**
Yunzhao Xing, Quantifying nocturnal scratch in atopic dermatitis: A machine learning approach using digital wrist actigraphy	Yefei Zhang, Adaptive seamless Phase II/III design with dose optimization decision and sample size reestimation	Jingjing Zou, Exploring encoder-decoder frameworks for learning latent representations of high-frequency wearable device data
Siavash Mortezaviv, From subjective to objective: Innovations in clinical evaluation based on digital endpoints with AI	Sherrine Eid, Applications of machine learning and artificial intelligence in RWD in personalized medicine for non-small cell lung cancer patients	Loki Natarajan, Analysis of sedentary behavior patterns derived from wearable sensors
Baolin Wu, Leverage large-scale genetic data for efficient and improved estimation of genetic ancestry	Xiang Zhang, Real effect or bias? Good practices for evaluating the robustness of evidence from comparative observational studies through quantitative sensitivity analysis for unmeasured confounding	Damla Senturk, Modeling intra-individual inter-trial EEG response variability in autism
Shanpeng Li, A joint model of longitudinal and post-diagnosis interval-censored data: with applications to UK-biobank primary care study	Ying Lu, Utilizing patient preference of outcome measures or hybrid trial design with concurrent registry data for ALS	Yehua Li, Semiparametric mixture regression for asynchronous longitudinal data using multivariate functional principal component analysis
3:00 - 3:15P: Break		
3:15 - 4:45P: Scientific Program Continues		

Causal Inference, Real World Evidence and Health Technology (Chair: Jin Zhou)	**Healthcare Data Analytics (Chair: Saman Parvaneh)**	**Panel Discussion on Opportunities for Graduates, change (Chair: Olga Korosteleva)**
Paul Frankel, Clinical trials, real-world evidence, and big data: An unEASY discussion	Thomas Leung, A simple R-Shiny demo for clinical trial data review	Haiwei Zhou, Lindsay Younis, Nicole (Xiaoyun) Li, Colleen Kelly, Louis Ehwerhemuepha
Jin Zhou, Investigating causal effects of wearable device usage in diabetes management	Sunil Gupta, Traceability and AI for better understanding, communication, and QC of trials	
Peter Zhang, A case study in identifying targeted patients population in major depressive disorder by enhanced enrichment design	Tiepu Liu, Accelerating submission through partnership - Sharing practice experience	
Li Huang, Meta-analysis of observational studies to estimate exposure adjusted incidence rate (EAIR)	Yun Liu, AI in clinical trial statistics: Balancing automation and expert Judgment	
Symposium conclusion - Thank you note from Larry Shen PhD, Chair, BSSC