

### Sunday, August 31

### **Education Workshop: Navigating Biobank Data: Advanced Strategies for Genetic Epidemiology Research**

10:00am-5:00pmRegistrationBallsaal Foyer, Ground Level12:00pm-1:00pmWorkshop LunchBallsaal Foyer1:00pm-6:00pmEducation WorkshopBallsaal AB

1:00pm Introduction & Welcome

1:10pm-2:10pm Session 1: Biobank Design – From Phenotype to Omics Integration

Natalia Rivera, Callie Zaborenko

2:10pm-3:40pm Session 2: Methodological Advances for Biobank-Based Genetic Epidemiology

Reedik Mägi, Krista Fischer

3:40pm-4:00pm Coffee Break

4:00pm-4:45pm Session 3: Scalable Computational Approaches for Cross-Biobank Analysis

Xihao Li, Jacob Williams

4:45pm-5:30pm Session 4: Practical Tutorial – A Walkthrough of Cross-Biobank Analysis

Jacob Williams, Xihao Li

5:30pm-6:00pm Panel Discussion + Q&A: Future Directions in Biobank-Based Research

5:00pm-6:30pm IGES Board of Directors Meeting Brasserie e.l.f., Ground Floor

### Monday, September 1

### **IGES Annual Meeting-Day 1**

7:00am-5:30pm	Registration	Ballsaal Foyer
7:00am-8:00am	Breakfast	Hotel Restaurant d*light, Ground Level
8:15am-8:55am	<b>Opening Session</b>	Ballsaal AB

8:15am-8:25am Welcome: Elizabeth Gillanders
8:25am-8:55am Presidential Address: Hae Kyung Im

8:55am-9:00am CANSSI Presentation

9:00am-10:00am Session 1 - Williams Awards Ballsaal A

**Chair: Elizabeth Gillanders** 

	Presentation	Abstract	Author
9:00am-9:15am	Biological Group-Guided Mediation Analysis	97	Yixin Zhang
9:15am-9:30am	Influence of Heritable Covariates on Genetic Studies of the Human Gut Microbiome	18	Alec McKinlay
9:30am-9:45am	Polygenic Scores in Proteomic Risk Prediction	43	Jakob Woerner
9:45am-10:00am	Characterisation of Diverse Global Ancestries Within Participants of the UK Biobank	58	Fiona Pantring
10:00am-10:20am	Refreshment Break		Ballsaal Foyer

Monday, Sept	Monday, September 1 IGES			
10:20am-11:50am	Session 2 - Neel Awards		Ballsaal AB	
	Chair: Sanjay Shete			
10:20pm-10:50am	Keynote Presentation:			
	Multiomic Insights into Diverse Human Diseases		Claudia Langenberg	
	Presentation	Abstract	Author	
10:50am-11:05am	Parent-of-Origin Effects on Complex Traits: Evidence from 265,000 Individuals	26	Robin Hofmeister	
11:05am-11:20am	Heterogeneity Due to Ancestry and Environment Improves the Resolution Multi-Ancestry Fine-Mapping	of 69	Siru Wang	
11:20am-11:35am	covImpute: Leveraging Genetic Correlations to Impute Missing EHR Phenotypes	21	Hyunkyu Lee	
11:35am-11:50am	Bayesian Inference Model to Prioritise Rare Variants from Family-Based Whole Genome Sequencing Data	28	Cathal Ormond	
11:50am-1:20pm	Lunch-open to all attendees or explore Cologne		Ballsaal Foyer	
11:50am-1:20pm	Committee Meetings and Lunch (rooms located on level 2) Publications Committee Program Committee Young Investigators Committee		Magnus 1 Magnus 2 Severinus 1	
1:25pm-2:55pm	Session 3 - Diversity		Ballsaal AB	
	Chair: Thomas Winkler			
1:25pm-1:55pm	Keynote Presentation:			
	Translational Genomics of Complex Disease		Eleftheria Zeggini	
	Presentation	Abstract	Author	
1:55pm-2:10pm	Estimating Gene Conversion Rates	15	Brian L. Browning	
2:10pm-2:25pm	WGS-Based HLA Allele Imputation Quantifies Pleiotropic Associations with Disease-Related Traits	n 110	Peyton McClelland	
2:25pm-2:40pm	High Consanguinity, Underrepresented Populations, and Genome Sequencing for Rare Variant Discoveries	109	Mohamad Saad	
2:40pm-2:55pm	Multi-Ancestral GWAS of GDM and Glycemic Traits During Pregnancy	57	Valentina Rukins	
2:55pm-3:15pm	Poster Highlights 1			
	Chair: Han Chen			
	Poster	Abstract	Author	
	A Multi-Trait GWAS to Disentangle Kidney Trait Genetics	38	Hannah Cathrin de Hesselle	
	Fantasio: A Case-Control Approach to Detect Rare Recessive Variants in Multifactorial Diseases	114	Sidonie Foulon	
	Selection Bias in Genetic Risk Estimates: HostSeq Simulation and GWAS	92	Ohanna C. Bezerra	

	Poster	Abstract	Author
	A Multi-Trait GWAS to Disentangle Kidney Trait Genetics	38	Hannah Cathrin de Hesselle
	Fantasio: A Case-Control Approach to Detect Rare Recessive Variants in Multifactorial Diseases	114	Sidonie Foulon
	Selection Bias in Genetic Risk Estimates: HostSeq Simulation and GWAS of COVID-19 Severe Outcomes	92	Ohanna C. Bezerra
	Fine-Scale Pharmacogenetic Diversity in Europe	79	Marc Gros-La-Faige
	Multi-Ancestry Polygenic Risk Scores for Chronic Obstructive Pulmonary Disease Improve Transferability Across Diverse Populations	65	Jing Chen
	The Role of Stress Sensitivity in the Genetics of Juvenile Myoclonic Epilepsy	96	Eric Sanders
3:15pm-4:15pm	Poster Session 1 & Refreshments		Ballsaal CD



RGC.

Keep up with Regeneron Genetics Center's people, latest news and all things genetics:



Monday,	September	1

# **IGES Annual Meeting-Day 1**

4:15pm-5:45pm	Session 4 - Statistical Modeling Ballsaal AB					
	Chair: Xiaofeng Zhu					
	Presentation	Abstract	Author			
4:15pm-4:30pm	Leveraging a Multi-Population Likelihood Framework for Bayesian Model Uncertainty in PRS Construction	113	Gillian King			
4:30pm-4:45pm	TrACES of Time: A Targeted mRNA Sequencing Approach for Estimating Time-of-Day of Bloodstain Deposition in Forensic Casework	86	Sebastian Sendel			
4:45pm-5:00pm	Why Meta-Analysis Fine-Mapping Can Be Confidently Wrong and How to Fix It	27	Chris Wallace			
5:00pm-5:15pm	Framework for Allelic Effect Heterogeneity Assessment in Genome-Wide Association Study Meta-Analyses	45	Chuan Fu Yap			
5:15pm-5:30pm	Uncovering Genetic Pathways in Type 2 Diabetes Using Genomic Structural Equation Modeling	85	Merli Koitmäe			
5:30pm-5:45pm	Penalized Generalized Linear Mixed Models for Longitudinal Outcomes in Genetic Association Studies	60	Julien St-Pierre			
6:30pm-10:30pm	Chocolate tasting, dinner and museum tour		The Chocolate Museum			

Am Schokoladenmuseum 1a Click here for walking directions. Allow 20-30 minutes for walking. Please wear your badge.

Reception from 6:30-7:30pm, dinner will follow at 7:30pm.

Reception from 6:30-7:30pm, dinner will follow at 7:30pm. Tour the museum from 8:30 -9:30pm and enjoy dessert afterwards.

Tuesday, September 2

## **IGES Annual Meeting-Day 2**

rdesday, deptember 2			dai Meeting-bay 2
7:00am-5:30pm	Registration		Ballsaal Foyer
7:00am-9:00am	Breakfast		Hotel Restaurant d*light
8:30am-10:00am	Session 5 - Robert Elston Award for Best Paper and Machine Lea	rning	Ballsaal AB
	Chair: Silke Szymczak		
8:30am-8:35am	Regeneron Presentation		Andrey Ziyatdinov
8:35am-9:05am	Special Presentation: Best Paper 2024		
	Presentation	Abstract	Author
9:05am-9:20am	IBD Mapping Identifies Associations for Brain Imaging Phenotypes	107	Han Chen
9:20am-9:35am	Deep Learning Based Multivariable Instrumental Variable Regression for Nonlinear TWAS	or 135	Wei Pan
9:35am-9:50am	Robust Rare Variant Association Tests for Machine-Learning Derived Phenotypes	115	Andrey Ziyatdinov
9:50am-10:05am	Improving Epigenetic Age Estimation by Combining Epigenetic Clocks	122	Denitsa Vasileva
10:05am-10:25am	Poster Highlights 2 Chair: Ohanna Cavalcanti		

Poster	Abstract	Author	
Improving Association Analysis of Mitochondrial DNA Heteroplasmy and Pancreatic Cancer by Hierarchical Testing	103	Brahim Aboulmaouahib	
LLM-Driven Single-Cell Analysis Enhances Prediction of Breast Cancer Therapy Response	121	Pingzhao Hu	
Supervised Admixture Sensitive to Relative Sample Size	127	Anthony Herzig	
Familial Hypercholesterolemia: Is it Prime Time for Population-Wide Screening in Germany?	6	Cristian Riccio	
Identifying Multi-Allelic Quantitative Trait Loci Using Empirical Haplotypes	128	Katelyn McInerney	
PRS Convex Combinations for Two-Phase Re-sequencing Studies	31	Osvaldo Espin Garcia	

10:25am-11:25am Poster Session 2 & Refreshments

**Ballsaal CD** 

11:25am-12:55pm	Session 6 - Causal Inference		Ballsaal AB
	Chair: Mohamad Saad		
11:25pm-11:55am	Keynote Presentation:		
	Advances in Statistical Fine-Mapping of Putative Causal Variants and	d Genes from G	WAS Xiang Zhou
	Presentation	Abstract	Author
11:55am-12:10pm	Exploring the Lifecourse Impact of Childhood Adiposity on the Human Plasma Proteome	47	Phoebe Dickson
12:10pm-12:25pm	Multi-Ancestry Mendelian Randomization with Transfer Learning	146	Xiaofeng Zhu
12:25pm-12:40pm	Negative Controls and Selection Bias in MR	10	Apostolos Gkatzionis
12:40pm-12:55pm	Multi-Omics Analysis Identifies New Risk Loci for Differentiated Thyroid Carcinoma	20	See Hyun Park
12:55pm-2:25pm	Lunch-open to all attendees or explore Cologne		Ballsaal Foyer
	Young Investigators Mentoring Lunch (advanced sign-up required)	otel Restaurant	d*light, Ground Level
	Committee Meetings and Lunch (rooms located on level 2)		
	Communications Committee		Magnus 1
	Education Committee		Magnus 2
	ELSI Committee		Severinus 1
2:30pm-4:00pm	Session 7 - Multi-Omics		Ballsaal AB
	Chair: Hae Kyung Im		
2:30pm-3:00pm	Keynote Presentation:		
	Critical Challenges in Multi-Omic Data Analysis		Michael Wu
	Presentation	Abstract	Author
3:00pm-3:15pm	A Fast Hierarchical Bayesian Model with Functional Annotation for Accur Cross-Ancestry Prediction	ate 124	Zhonghe Shao
3:15pm-3:30pm	Mind the Colocalisation Gap in Immune-Mediated Diseases	66	Elena Vigorito
3:30pm-3:45pm	Genetic Regulation of Protein Expression in Prediabetes and Type 2 Diabetes	133	Archit Singh
3:45pm-4:00pm	Genetic Dysregulation of Protein Expression in Aging and Neurodegeneration	119	Mykhaylo M. Malakhov
4:00pm-4:15pm	Refreshment Break		<b>Ballsaal Foyer</b>



# **Training Opportunities**





Accelerateing the impact of data sciences across disciplines to address pressing societal questions and drive positive social change.

# **DATA SCIENCES INSTITUTE MICROCREDENTIALS**

datasciences.utoronto.ca



### **DEPLOYING AI**

October 20 - November 6, 2025 (Live Online)

Gain hands-on training to move large language models from prototype to production. This practical microcredential covers essential techniques including fine-tuning, retrieval-augmented generation (RAG), evaluation, and deployment workflows.

Registration:

Mid-August – September 20

Details here.



### **GENETIC ANALYSIS TOOLBOX**

Launching January 2026 (Live Online)

Build applied skills in population genetics, GWAS, and statistical genetics. Designed for professionals and researchers working with genomic data.

Registration opens: Fall 2025

Sign up to the DSI's e-news for details and updates — coming soon!

# **CANSSI ONTARIO**

We strengthen and enhance research and training in statistical sciences by developing programs that promote interdisciplinary research and enable multidisciplinary collaborations.



# **CANSSI STAGE** TRAINING PROGRAM

stage.utoronto.ca

Formal and comprehensive training program for PhD students and postdoctoral fellows through projectbased, mentored research. It spans Genetic Epidemiology, Population Genetics and Statistical Genetics so trainees can explore how genes, traits, and populations interact across space, time, and environments.

Program Benefits:

Research Allowance

★ Travel Awards

Mentors from Universities Across Canada

Journal Club

Monthly Seminars (ISSS)

📇 Trainee-Speaker Group Meetings

### **INTERNATIONAL SPEAKER** SEMINAR SERIES (ISSS)

Focuses on statistical genetics and genetic epidemiology research, offering trainees exposure to cutting-edge international research, fostering interdisciplinary collaborations, and building new networks for future research partnerships.

### **MAILING LIST**

Sign up for updates about CANSSI Ontario funding and job opportunities, events, seminars, and community news.



CANSSI Ontario opportunities are generously supported by the University of Toronto Faculty of Arts & Science.

### **Abstracts: Invited Speakers**

### Monday September 1

Session 2



Multiomic Insights Into Diverse Human Disease Claudia Langenberg

Application of different omic technologies is now feasible at population scale. This talk will present examples of how the integration of different omics in large patient and population studies can help to predict disease risk, understand mechanisms, and reveal shared connections between rare and common diseases. Studies include different metabolomic and proteomic technologies and an investigation how these can be combined and how their complementarity can be employed for synergistic insights into human

health.



Session 3 **Translational Genomics of Complex Disease** *Eleftheria Zeggini* 

In this talk, I will give an overview of how we have used translational genomics approaches to enhance our understanding of complex diseases like osteoarthritis and type 2 diabetes, shed novel biological insights, and provide a stepping stone for bridging the gap between basic discovery and translation.

### Tuesday, September 2



Session 6

Advances in Statistical Fine-Mapping of Putative Causal Variants and Genes from GWAS

Xiang Zhou

Genome-wide association studies (GWAS) have identified many SNPs associated with common diseases and complex traits. However, the underlying causal variants and biological mechanisms driving these associations remain largely elusive. In this talk, I will present several recent statistical methods developed

by our group aimed at fine-mapping putative causal SNPs and genes from GWAS data. First, I will introduce MESuSiE, a probabilistic multi-ancestry fine-mapping method that enhances accuracy and resolution by integrating association signals across diverse ancestries. Next, I will discuss PMR, a probabilistic Mendelian randomization framework that unifies various TWAS and MR approaches. PMR accommodates multiple correlated instruments and enables robust testing for gene-to-trait causal effects, even in the presence of horizontal pleiotropy. Finally, I will present GIFT, a frequentist approach for conditional TWAS analysis that fine-maps causal genes by controlling for nearby genes in a locus. GIFT accounts for gene expression correlation, cis-SNP linkage disequilibrium, and the uncertainty in gene expression prediction models. Together, these methods offer new tools for advancing our understanding of complex trait biology and for more precisely identifying causal genes and variants in the post-GWAS era.



Session 7
Critical Challenges in Multi-Omic Data Analysis
Michael Wu

Progress in high-throughput biotechnologies has culminated in a wide range of -omic sciences that each offer a unique window into biological processes underlying complex traits and conditions. Contemporary studies are now simultaneously considering multiple omics data types with the promise of com-

prehensively addressing scientific questions that have eluded researchers for decades. However, despite the promise of multi-omic data integration, critical challenges remain. In this presentation, we review current progress and central challenges with multi-omics data analysis, not least of which is understanding analytic objectives. To this end, we characterize different types of study objectives, illustrating them with our specific methods integrating microbiome and other omics. We further consider tools to aid others in formalizing analytic frameworks.

### **Industry Meeting Sponsor**



Regeneron Genetics Center

### **Education Workshop**



### **Institution Meeting Sponsor**



### **Paper Awards Sponsor**



### Recruitment Table Sponsors



West German Genome Center | WGGC

Contact us: kontakt@wggc.de Website: https://wggc.de
University of Cologne, Weyertal 115b, 50931, Cologne, Germany
<a href="https://www.linkedin.com/company/wggc-nrw">https://www.linkedin.com/company/wggc-nrw</a>
<a href="https://bsky.app/profile/wggc-de.bsky.social">https://bsky.app/profile/wggc-de.bsky.social</a>



ZS is a management consulting and technology firm. We transform ideas into impact by bringing together data, science, technology and human ingenuity to deliver better outcomes for all.

To learn more, visit <u>www.zs.com</u> or follow us on LinkedIn https://www.linkedin.com/company/zs-associates/



# Empowering Innovation in Healthcare and Precision Medicine through Research & Education

We are proud to support the 2025 Education Workshop at the IGES Annual Meeting.

At Qatar Computing Research Institute (QCRI), we are committed to advancing knowledge and technologies that shape the future of education, healthcare, and sustainability through data-driven research.

Follow us

o qcri\_hbku

X QatarComputing



# Monday, September 1

3:15pm-4:15pm		Poster Session 1 with *Poster Highlights
Presenter	Poster	Title
*Hannah Cathrin de Hesselle	38	A Multi-Trait GWAS to Disentangle Kidney Trait Genetics
*Jing Chen	65	Multi-Ancestry Polygenic Risk Scores for Chronic Obstructive Pulmonary Disease Improve Transferability Across Diverse Populations
* Marc Gros-La-Faige	79	Fine-Scale Pharmacogenetic Diversity in Europe
*Ohanna C. Bezerra	92	Selection Bias in Genetic Risk Estimates: HostSeq Simulation and GWAS of COVID-19 Severe Outcomes
*Eric Sanders	96	The Role of Stress Sensitivity in the Genetics of Juvenile Myoclonic Epilepsy
*Sidonie Foulon	114	Fantasio: A Case-Control Approach to Detect Rare Recessive Variants in Multifactorial Diseases
Dhanya Ramachandran	4	Genomic Determinants of Cervical Cancer Risk
Anat Reiner-Benaim	5	Improved Methods for Analyzing Small Samples in High Dimensions With Application to Genome-Wide Association Studies of Rare Diseases
Samuel O. Antwi	9	Spatial Genomics Profiling of Metabolic Dysfunction-Associated Steatohepatitis Biopsy Tissues for Liver Cancer Risk Prediction
Winfred Gatua	12	Negative Controls to Evaluate the Sensitivity of Mendelian Randomization Estimates to Sample Selection Bias
Geetha Chittoor	13	Phenome-Wide Association Study of Coronary Heart Disease Susceptibility Loci
Jieyu Ge	14	A Mixture Model Approach for Correcting Systematic Measurement Errors in Sitting Height Data from UK Biobank
Soumeen Jin	16	Genetic Architecture of Time to Reach EDSS 6 in Multiple Sclerosis
Yung-Han Chang	17	Formal Statistical Replication Analysis in Lung Cancer Genome-Wide Association Studies
Katherine Fawcett	19	The role of the <i>ADRB2</i> Thr164lle Variant in Lung Function Determination, Plasma Proteome Variability and Other Phenotypes in UK Biobank
Hanna Julienne	22	Multi-Trait GWAS Across 52 Infectious Diseases: Mapping Common Variants Associated With the Immune Response
Sarah E Orr	23	Mapping the Epigenetic Mechanisms Underlying Musculoskeletal Disease Across the LifeCourse
Gang Chen	25	Cross-Ancestry Genome-Wide Association Study of Creatine Kinase Reveals Novel Genetic Loci and Insights into Muscle Injury
Yuriko Katsumata	32	Multiallelic Genetic Architecture Underlying AD and ADRD Proteinopathy
Federico Murgia	33	Expanding Insights into the Genetic Architecture of Coronary Artery Disease: A Multi-Ancestry and Multi-Trait Genome-Wide Meta-Analysis Among ~2 Million Individuals
Katie Watts	34	Genetic Comparative Analyses of Atopic Dermatitis and Psoriasis
Tessel E. Galesloot	35	Body Size and Non-Muscle Invasive Bladder Cancer Outcome: What Do the Genes Say?
Janina Marie Herold	36	Age-Informative Polygenic Score for Quantitative Traits: An Approach and Its Chances and Challenges to Predict Kidney Function and Kidney Function Decline
Amra Dhabalia Ashok	37	Design and Development of a Results Relational Database for Cardiovascular Phenotypes
Yu-Ming Lee	39	Genomic Prediction of Actinic Keratosis Risk Using GWAS-Derived Polygenic Scores and Machine Learning Approaches

# Monday, September 1

3:15pm-4:15pm		Poster Session 1 continued
Presenter	Poster	Title
Andrew Paterson	40	Incorporating Large-Scale Genetic Association Results into Clinical Genetics Consortium (Clin-Gen) Sequence Variant Classification
Bowei Xiao	41	A Multivariate Approach to Identify CpGs in Peripheral Blood Where DNA Methylation is Associated with Cerebrospinal Fluid Biomarkers of Alzheimer Disease
Yan Sun	42	Epigenetic Factors Predict Incident Heart Failure and Clinical Subtypes
Tanja K. Rausch	46	Comparison of Classic Polygenic Scores with Machine Learning Algorithms to Predict Hypertension
Lam Opal Huang	48	Neurodevelopmental Disorders Copy Number Variants and Risk of Internalising and Cardiometabolic Disorders
Morteza Vaez	49	Recurrent Copy Number Variants and Polygenic Scores Jointly Influence the Risk of Psychiatric Disorders in the iPSYCH2015 Case-Cohort Sample
Sandra Freitag-Wolf	50	Genetic and Geographic Influence on Phenotypic Variation in European Sarcoidosis Patients
Marina Bleskina	51	Comparison of Meta-Learners for Late-Stage Prediction Modeling for Multi-Omics Data
Andrés Ingason	52	Re-Evaluating the Association Between 22q11 Deletion Syndrome and Schizophrenia
Soha Hamid Sabtiy	53	The Neurodevelopmental Risk Associated With Congenital Heart Disease and Recurrent Copy Number Variants
Victor Vera Frazão	54	Large-Scale Genotype-Phenotype Simulations for Genomic Studies
Catherine John	55	Collection of Multi-Omics Data for the Investigation of Long-Term Conditions in EXCEED (Extended Cohort for E-health, Environment and DNA)
Yaxin Luo	56	The Relationship Between Maternal Migraine During Pregnancy and Offspring ADHD Traits
Iona Collins	59	A Genome-Wide Association Study Using the Bacillus Calmette-Guérin Scar to Elucidate the Genetic Basis of Scarring in a European Population
Dominic Sayers	62	Identifying Shared Genetic Associations in Fibrosis: A Multi-Organ Rare Variant Analysis
Stefan Böhringer	63	Back-in-Time Reconstruction of Population Structure Using Reconstructed Haplotypes
Nick Shrine	64	Single Variant and Gene-based Collapsing Association of Rare Variants With Lung Function to Refine Mapping of Causal Genes and Biological Pathways
Vivian Link	67	Roadmap to a Successful Rare Variant Association Study - A Topic Review
Inti Anabela Pagnuco	68	Transcriptome-Wide Association Analysis of Age-Related Macular Degeneration Across Two Retinal Layers
Yi-Qian Sun	70	Association Between Pace of Aging Estimated Using Blood Dna Methylation and All-Cause Mortality: The Hunt Study
Yeliz Eski	71	The Effect of Genetic Profiles on Physical Activity and Sedentary Behavior in Children - The GECKO Drenthe Cohort
Daniel Stow	72	Evaluating Transferable Polygenic Risk Scores for Internalising and Cardiometabolic Multimorbidity
Alexander T Williams	74	Genome-Wide Association Study of Eye Protrusion

# Tuesday, September 2

10:20am-11:20am		Poster Session 2 with *Poster Highlights
Presenter	Poster	Title
*Cristian Riccio	6	Familial Hypercholesterolemia: Is It Prime Time for Population-Wide Screening in Germany?
*Osvaldo Espin-Garcia	31	PRS Convex Combinations for Two-Phase Re-Sequencing Studies
*Brahim Aboulmaouahib	103	Improving Association Analysis of Mitochondrial DNA Heteroplasmy and Pancreatic Cancer by Hierarchical Testing
*Pingzhao Hu	121	LLM-Driven Single-Cell Analysis Enhances Prediction of Breast Cancer Therapy Response
*Anthony Herzig	127	Supervised Admixture Sensitive to Relative Sample Size
*Katelyn McInerney	128	Identifying Multi-Allelic Quantitative Trait Loci Using Empirical Haplotypes
Lisa-Marie Nuxoll	75	Genetic Prediction of Blood Glucose Variability in Preterm Infants: A Polygenic Score Approach
Brandon Lim	76	Using Mendelian Randomization to Identify Mass Spectrometry Quantified Proteins Causally Associated with Lung Function
Stephanie Sheir	77	Revisiting the Association Between BMI and Depression Using Phenome-Wide Association Clustering of MR Instruments (PWC-MR)
Haibo Huang	78	Genetic Correlations Between Asthma Subtypes and Neuropsychiatric Disorders
Ghestem Florence	80	Knowledge Graph to Dissect Genotype-Phenotype Associations.
Bryony Hayes	81	Assessing the Role of Insomnia in Breast Cancer Risk Across Multiple Ancestries Within the "All of Us" Research Program
Emmanuelle Génin	82	Mapping French Genetic Diversity: From Regions to Europe for Genomic Medicine
Marc Gros-La-Faige	83	Evaluation of Star Allele Annotation Tools and the Influence of Imputation and Population Origin
Kayesha Coley	84	Association of Polygenic Scores for ACE Inhibitor-Induced Cough Across Cohorts, Ancestries and Phenotypes
Anne E. Justice	87	Multi-Population GWAS of Waist-To-Hip Ratio Reveals Heterogeneous Pathways to Central Obesity
Shu-Hsien Cho	88	VACANT-M: An Annotation-Enhanced Variant-Set Association Test Accounting for Genetic Relatedness and Population Structure
Matthew Boyton	89	Integrative Heritability-Informed Mendelian Randomization Identifies Divergent Roles for IL6 and TNF in Asthma and Lung Cancer
Anna Lorenz	90	Alzheimer's Disease Genetic Risk Variants Influence Age Trajectories of Circulating Peripheral Proteins
Felix Reichelt	91	Heritability and Shared Genetics Among Stress Exposures and With Personality: Insights from the Multigenerational Lifelines Cohort Study
Richard Packer	93	Enabling Metanalysis Across Multiple Biobank Studies for Phenome Wide Association Studies with DeepPheWAS
Aida Eslami	94	Comparison of Statistical Methods for Identifying X Chromosome Inactivation Patterns - Application in Asthma
Ruby Tsang	95	Polygenic Liability to Internalising and Cardiometabolic Multimorbidity and Health Trajectories Across Early Life
Kristel Van Steen	100	Challenges and Innovations in Constructing and Validating Individual-Specific Networks for Precision Medicine
Kavya Singh	101	Advances in Individual-Specific Networks for Patient Subtyping in Precision Medicine
François Cornélis	104	HLA Genotype Combinations Impact Allele Association With Multiple Sclerosis Risk

# **Tuesday, September 2**

10:20am-11:20am		Poster Session 2 continued
Presenter	Poster	Title
Kari E. North	105	Uncovering the Genetic Nexus of Obesity and Addiction: Pleiotropic Loci from Large-Scale GWAS Reveal Shared Neurobehavioral Risk
Janne Pott	106	Proprotein Convertase Subtilisin/Kexin Type 9 and Breast Cancer Survival: A Mendelian Randomization Study
Mark Lamin	108	Comparison of Linear and Non-Linear Approaches to Ancestry Estimation in Highly-Admixed Populations
Lap Sum Chan	112	DrFARM: Identification of Pleiotropic Genetic Variants in Genome-Wide Association Studies
Heather M Highland	116	Glycemic Traits are Associated With Insulin Signaling and Hormone Metabolism in a High- Risk Hispanic/Latino Population on the US/Mexico Border
Wenyu Huang	118	Mendelian Randomization Provides No Evidence for the Associations of Genetically Predicted Heart Rate Variability with Seven Psychiatric Diseases
Shelley B Bull	120	Effects of Trait Ascertainment and Selection on Polygenic Scores in Family-Based Study Designs for Genetic Association Analysis of Rare Variants
Roxana Moslehi	123	Multidimensional Analyses of Pedigree, Epidemiologic, Proteomics, and Transcriptomics Data Provide Etiologic Clues for Myalgic Encephalomyelitis/Chronic Fatigue Syndrome
Mael Guivarch	126	Assessing Clustering Performance and Impact on Allele Frequency Estimation Across Sampling Schemes in Fine-scale Genetic Simulations
Devleena Ray	129	Mendelian Randomization Study of the On-Target Effects of Long-Term Aromatase Inhibitor Use
Magdalena Janecka	132	Direct and Indirect Genetic Effects in the Associations Between Maternal Health and Autism: A Novel, Family-Based Method
Wei Pan	134	An Alternative Analysis Method for Transcriptome-Wide Association Studies
Jennifer Below	136	Class-Specific Lipid Dysregulation and Cardiometabolic Risk in Severe Obesity
Jessica Martinez	137	Univariate and Multivariate Genome Wide Association Studies Reveal New Variants Associated With Cytokine Levels in Asthmatic Families
Takiy-Eddine Berrandou	139	Multi-Trait Genome-Wide and Gene-Based Analyses Implicate Coagulation and Vascular Smooth-Muscle Pathways in Spontaneous Coronary Artery Dissection
James Alexander Temple	141	Using Kolmogorov-Arnold Networks, an Explainable Al Method, to Integrate Multiomics and Interpret the Relationships Underpinning Complex Traits
Chrstelle Ngueda Kemda	143	1-NN Imputation of Missing DNA-Methylation Values
Anne-Kathrin Ruß	144	Genome-Wide Association Study of Post COVID-19 Syndrome in a Population-based Cohort in Germany
Paolo Dalena	145	Polygenic Risk Scores and Arrhythmic Risk in Dilated Cardiomyopathy: Insights From Common Variant Associations and Prognostic Modeling
Anna D Argoty-Pantoja	147	Genome-Wide Association Meta-Analysis on Type D Personality
Cheryl D. Cropp	149	Genomics Education Reframed: Race, Ancestry, Ethnicity, and Culture in the Classroom
Lindsay Fernandez- Rhodes	151	The Metabolic Subtype of Polycystic Ovary Syndrome: A Gene by Lifestyle Interaction Study in Hispanic/Latinas

### **POSTER SESSIONS**

\*Poster Highlights

Session 1 - Monday, September 1

3:15pm-4:15pm

Session 2 - Tuesday, September 2

10:20am-11:20am

