

### Poster Session 3 - 14:00-15:30 July 23, 2025 (Wednesday)

#### Symposium 12: Population genetics through time session A

Poster No.	Abstract ID	Presenter Name	Abstract Title
S12-P01	58	Jiawen Li	Population genomics reveals genetic load and selection in a bioluminescent Flashlight fish
S12-P02	225	Lu Wang	Higher African ancestry proportion is associated with an attenuated increase of serum phosphorylated tau181 in a longitudinal study of aging African Americans
S12-P03	274	Jiaming Hu	Structured population of Eurasian woolly mammoths driven by isolation-by-distance and periodic gene flow
S12-P04	337	Guanglin He	Maternal genomic legacy indicates multiple ancestral founding lineages linked to ancient farmers and pastoralists in the formation of Altaic people
S12-P05	400	Hong-Xiang Zheng	MtDNA genomes reveal relaxed purifying selection in human population expansions after the Last Glacial Maximum
S12-P06	409	Kai Tätte	Genetic origins of the Kiritimati population from central-eastern Micronesia
S12-P07	417	Shiwen Song	From Eurasia to North America: The Key Role of Equus dalianensis in Late Pleistocene Equid Interactions
S12-P08	452	Andrey Vaulin	Maximum likelihood-based, base call quality-aware population genetic statistics estimators
S12-P09	478	He Yu	Ancient genomics reveal Chinese pig domestication history associated with human migration and management
S12-P10	508	Qiaoling Deng	Chromosome-level genome provides insights into parallel latitude adaptation in closely related cyprinid fish <i>Hemiculter leuciscus</i> and <i>Siniperca kneri</i>
S12-P11	581	Yuan Xu	Bayesian model-averaging of parametric coalescent models for phylodynamic inference
S12-P12	587	Kai Mi	Transcriptomic variation in metazoans follows the drift-barrier hypothesis
S12-P13	668	Haipeng Li	Ancient Human Extinction Risk: Implications from High-Precision Computation and Fossil Evidence
S12-P14	670	Qipian Chen	Genomic Insights into Population Dynamics and Balancing Selection in Pioneer Mangrove Species
S12-P15	694	Wenshuai Ma	Evolution of alternative polyadenylation after gene duplication
S12-P16	696	Yue Tian	Sex-biased regulatory changes in the placenta of native highlanders contribute to adaptive fetal development
S12-P17	737	Shaohua Fan	A modern human-specific regulatory variant of APOB3 influence human height and basal metabolic rate via macronutrients metabolism
S12-P18	750	Dongyoung Kim	The evolutionary genomic study of Korean <i>Kaolinonychus</i> harvestmen (Arachnida, Opiliones, Paranonychidae)
S12-P19	815	Susanna Gutierrez	Indirectly inherited archaic variants played a key role in facilitating adaptation in modern Peruvians
S12-P20	831	John Richards	Museum specimens establish baselines for historical antimicrobial resistance in mammalian microbiomes unaffected by anthropogenic contamination
S12-P21	916	Jiahui He	Inferring the genetic regulatory landscape of hominin lineage-specific sites and their phenotypic effects
S12-P22	925	Martina Guli	Genomic testing of hypotheses on the origins of the Grecia Salentina population, a Greek-speaking enclave in Southern Italy
S12-P23	971	Wenxi Li	Ancient Beluga Genomes: Unraveling Long-Term Evolutionary Dynamics in Arctic Marine Mammals
S12-P24	1029	Pengpeng Chen	The Neandertals from Stajnia Cave, Poland
S12-P25	1043	Danat Yermakovich	Investigating the functional relevance of Denisovan introgressed DNA among New Guineans

S12-P26	1047	Audrey Tjahjadi	Genome-wide patterns of runs of homozygosity in Near Oceanic populations
S12-P27	1077	Qing Chen	Exploring the genetic basis of dispersal propensity in rapidly colonizing endangered wading bird, the Oriental Storks <i>Ciconia boyciana</i>
S12-P28	1101	Alicja Anna Kaźmierkiewicz	Ancient and modern genomes of the common vole, <i>Microtus arvalis</i> (Rodentia, Cricetidae), reveal the complex evolutionary history of Western Carpathian populations
S12-P29	645	Zhiru Liu	Prehistoric Global Migration of Vanishing Gut Microbes with Humans

#### Symposium 27: Population genetics through time session B

Poster No.	Abstract ID	Presenter Name	Abstract Title
S27-P01	1221	Yuemin Li	The genomic history and adaptation of the chickens
S27-P02	1251	Hie Lim Kim	From North Asia to South America: Tracing the longest human migration through genomic sequencing
S27-P03	1258	Walter Nicolas Ortega	HLA Genetic Diversity and Immune Response in Ancient Mexican Populations: Insights from the Prehispanic and Colonial Periods
S27-P04	1263	Carla Casanova Suárez	Evolutionary analysis of diet adaptations in anatomically modern humans using ancient genomes
S27-P05	1270	Tommaso Stentella	A novel Bayesian method to perform demographic inference from genomic data
S27-P06	1294	Jiamei Peng	Genomic Insights into Demographic History, Inbreeding, and Mutation Load of Juglans
S27-P07	1306	Aine MacDermott	Investigating the Global Distribution, Evolution, and Selection of ADH1B *2 and *3 Alleles in Modern Human Populations
S27-P08	1307	Diego Cortez	Exploring how past geological events influenced the genetic structure of an endemic lizard in the Baja California Peninsula.
S27-P09	1308	Nada Elsharkawy	The Zagros Mountain-Kavir Desert Migration Corridor: How the Iranian Plateau Shaped Eurasian Ancestries Throughout Millennia.
S27-P10	1319	Mariana Lyra	Evolutionary processes affecting genomic and phenotypic variation in natural populations of the green anole
S27-P11	1336	Carmina Barberena Jonas	Unraveling 500 Years of Evolutionary History and Admixture Through IBD Genomic Analyses in the Mexican Biobank
S27-P12	1355	Edward Huang	High-Resolution Genomic Insights into the Peopling of Hawai'i
S27-P13	1370	Amit Gourav Ghosh	Genomic Insights into North Eurasian and South American Indigenous Populations Shaped by Diverse Climatic Conditions
S27-P14	1379	Tran The Hung Nguyen	Exploring genetic diversity and demographic history of Southeast Asians in warm environment through whole-genome analysis.
S27-P15	1442	Mehmet Somel	Mobility in East and West Eurasia through the Holocene: a comparison of temporal dynamics through paleogenomics
S27-P16	1451	Junlong Jiang	Development of a High-Throughput Molecular Inversion Probe Panel for Cost-Effective Genotyping in the Chinese Mitten Crab ( <i>Eriocheir sinensis</i> )
S27-P17	1468	Anne-Mai Ilumäe	Mothers on the move - thousands of complete mitochondrial sequences reveal the time-layered formation of the shared maternal gene pool in Estonia and Finland
S27-P18	1487	Liang Lu	Temporal dynamics of adaptive evolution: Genomic signatures of selection across millennial-scale environmental adaptation

S27-P19	1508	Ksenia Juravel	Anthropogenic Events and Their Impact on Species' Genomic Diversity: A Case Study from the Natufian Period to Recent Times
S27-P20	1527	Chenchang Qian	Paleoclimatic events shaped the genetics, migration and microbial differentiation of two incipient gull species
S27-P21	1186	Ji Hyoun Kang	Population genomics and altitudinal adaptation of a spiny crawler mayfly, <i>Drunella ishiyamana</i> (Ephemeroptera: Ephemerellidae), in Mongolia

#### Symposium 17: Thematic symposium: regulatory genomics and non-coding elements

Poster No.	Abstract ID	Presenter Name	Abstract Title
S17-P01	1537	Xingyu Yan	Identification of RNA binding partners of AtGRP7 using immunoprecipitation-free techniques across Brassicas
S17-P02	1096	Chen Leibson	The role of differential methylation in phenotypic divergence between humans and nonhuman African apes
S17-P03	131	Shuyu He	The genetics of gene expression divergence in wild baboons
S17-P04	264	Yiheng Li	Evolution of cis-regulatory elements in mammalian peripheral immune cells
S17-P05	289	Chen Xie	Patterns of extreme outlier RNA expression in population data reveal sporadic over-activation of genes with co-regulated modules in subsets of individuals
S17-P06	339	Dake Gao	Exploring mRNA translation regulation by the Kozak sequence in the 5' UTR
S17-P07	736	Johannes Nicolaus Wibisana	Promoter-centric gene regulation enables extreme genome scrambling in <i>Oikopleura dioica</i>
S17-P08	782	xin mi	Genetic and Epigenetic Interplay in Salt Adaptation
S17-P09	905	Haotian Wang	Personalized transcriptional network analysis links age-related loss of gene coordination to individual biological aging
S17-P10	927	Shuanghui Chen	Identifying osteoarthritis-related genotype-by-environment interactions using cell culture systems
S17-P11	1154	Yuhang Jia	The differential alternative splicing pattern in caste of social insects
S17-P12	1216	Anastasiia Bolikhova	snRNA maturation dynamics and the role of the Integrator protein in this process
S17-P13	1264	Stepan Denisov	Unravelling the evolution of intrinsic terminators
S17-P14	1303	Dylan Stermer	Mapping Functional Impact of Alternative Splicing Coupled Nonsense-Mediated Decay

#### Symposium 19: Thematic symposium: conservation genomics

Poster No.	Abstract ID	Presenter Name	Abstract Title
S19-P01	48	Rongfeng Cui	Phased genome assemblies reveal haplotype-specific genetic load in the critically endangered Chinese Bahaba ( <i>Teleostei</i> , <i>Sciaenidae</i> )
S19-P02	148	Jian Cui	Spatial variation in Toll-like receptor diversity in koala populations across their geographic distribution
S19-P03	376	Zhenyong Du	Linking chromosomal fusions to adaptive evolution in an invasive copepod species complex
S19-P04	392	James Fleming	Identifying and understanding new meiobenthos from the Deep Pacific: making up a taxonomic shortfall
S19-P05	575	Hanyu Yang	Whole-Genome Resequencing Reveals the Genetic Health of Reintroduced California Red-Legged Frog ( <i>Rana draytonii</i> ) Populations in Southern California
S19-P06	597	Jack Chi-Ho Ip	Species-specific molecular responses of subtropical corals to natural bleaching events: Insights from coral microbiome, metagenome, and metatranscriptome analyses
S19-P07	739	Toby Kovacs	Genetic diversity loss is functionally irreversible by natural mutation alone
S19-P08	746	Ruoshi Huang	Increased genetic load in purebred chickens and purging of coding sequences in long ROHs

S19-P09	943	Fabio Pinheiro	Chromosome-scale genome assembly in the orchid <i>Epidendrum fulgens</i> reveals insights for environmental adaptation
S19-P10	1054	Sojung Han	Understanding bonobo evolution and diversity from genomic data
S19-P11	1070	Eilish McMaster	Insights from Australian government conservation genomics projects
S19-P12	1170	Yan-Feng Song	Mixed-Ploidy Evolution and Speciation in <i>Cyclocarya</i> (Juglandaceae): Taxonomy, Adaptation, and Polyploidy Origins
S19-P13	1246	Genis Garcia-Erill	Epistatic regulation of an adaptive phenotype increases population resilience to fluctuating environments
S19-P14	1406	Jilong Ma	Determinants of local adaptations in arthropods in fragmented Denmark grasslands
S19-P15	1461	ALINA DEMKINA	High quality genome assembly of the Beluga Whale: unraveling Arctic adaptation, longevity, and conservation challenges

#### Symposium 21: Thematic symposium: virus evolution and pathogen evolution

Poster No.	Abstract ID	Presenter Name	Abstract Title
S21-P01	1042	James Baxter	The Evolutionary Dynamics of Usutu Virus: Emergence, persistence, and spread of a rapidly evolving orthoflavivirus in Europe
S21-P02	304	Zhenglin Zhu	Functional Evolution of SARS-CoV-2 Conferred by Non-spike Mutations
S21-P03	78	jialu Zheng	Recombination and Selection Trajectory of the Monkeypox Virus During Its Adaptation in the Human Population
S21-P04	139	Feng Chen	A slight mismatch between a gene's codon usage and the cellular tRNA supply is beneficial
S21-P05	189	Ekaterina Riumina	HLA class I escape drives the evolution of SARS-CoV-2 in human population
S21-P06	335	Ke-Jia Shan	Molecular Evolution of Protein Sequences and Codon Usage in Monkeypox Viruses
S21-P07	554	daniel falush Da你饿了falush	The lifecycle of bacterial species.
S21-P08	679	Galya Klink	Inference of fitness landscape dynamics in SARS-CoV-2 amino acid sites
S21-P09	752	Feiyu Chen	Deep Mutational Scanning of Bat-SC2r-CoV ZC45 Receptor Binding Domain Revealing Bat-SC2r-CoV Evolution and Host Shifting
S21-P10	769	Andries van Tonder	Historical cattle movements have driven global <i>Mycobacterium bovis</i> transmission
S21-P11	882	Alicia L Bruzos	Evolution of marine contagious cancers in cockles characterized by genomic instability
S21-P12	896	Jingru Feng	Antigenic Evolution Landscape and Vaccine Composition Recommendation Strategy for SARS-CoV-2
S21-P13	912	Xiaolu Tang	Evolutionary dynamics and variation characteristics of SARS-CoV-2
S21-P14	977	Ying Zeng	Understanding the role of Anseriformes in avian flu transmission dynamics in China
S21-P15	1114	Gavin Band	Geographical variation and selective equilibrium of the <i>P. falciparum</i> sickle-associated mutations
S21-P16	1267	Cameron R Ferguson	Genomic data from a medieval case of <i>Yersinia ruckeri</i> infection sheds light on host adaptation in <i>Yersinia</i> sp.
S21-P17	1318	Philippa Steinberg	Understanding drivers of seasonal influenza variant fitness to improve evolutionary forecasting
S21-P18	1531	Wytamma Wirth	Diana: A WebAssembly-Powered Tool for TraDIS Data Exploration and Analysis
S21-P19	1570	Zehua Chen	Spatial Model of Self-Limiting Genetic Biocontrol Strategies

#### Symposium 22: Thematic symposium: evolution theory and recent methodological advances

Poster No.	Abstract ID	Presenter Name	Abstract Title
------------	-------------	----------------	----------------

S22-P01	690	Minghao Du	Feasibility and Limitations of Using Deep Learning to Detect Mass Extinctions on Fossilized Phylogenetic Trees
S22-P02	1224	Matteo Fumagalli	Generative AI models for evolutionary genomic inferences
S22-P03	67	Zheng Li	COL: a method for identifying putatively functional circular RNAs
S22-P04	81	Yichang Chen	DIVERGE v4: a web server for large-scale analysis of functional divergence across multi-gene families
S22-P05	249	Chao Yang	Macrogenetic atlas of prokaryotes
S22-P06	350	Sishuo Wang	A new approach to integrating complex substitution models into molecular clock analysis and its implications for dating ancient symbiont evolution
S22-P07	706	Loraine Schwander	Serpentinization as the source of energy, electrons, organics, catalysts, nutrients and pH gradients for the origin of LUCA and life
S22-P08	732	Huaiyan Ren	A new information criterion to compare partition versus mixture models and its application to empirical datasets
S22-P09	865	Walter Xie	Towards a Universal Model Specification Language for Phylogenetics
S22-P10	1177	Meikun Zhou	Retriever: an imputation pipeline designed for non-model species
S22-P11	1180	Florence Débarre	Spatial granularity and the advance of alleles under frequency-dependent selection
S22-P12	1199	Joëlle Barido-Sottani	A case study in improving the computational performance of Bayesian phylogenetic inference
S22-P13	1274	Bernhard Bein	Automatizing high-throughput screens for positive selection and relaxation across hundreds of genomes
S22-P14	1330	Caroline Puente-Lelievre	Structural phylogenetics: tracing evolution through protein structure
S22-P15	1525	Han Liu	Positive Selection Inference by Deep Learning

#### Symposium 23: Thematic symposium: Symbiosis

Poster No.	Abstract ID	Presenter Name	Abstract Title
S23-P01	502	Yiyuan Li	Rapid evolution of mitochondrion-related genes in haplodiploid arthropods
S23-P02	629	Yingxin Li	Metatranscriptomic and metagenomic analyses reveal the roles of coral holobionts in recovery phase during natural bleaching event: A case study of subtropical <i>Acropora solitaryensis</i>
S23-P03	153	Giacomo Moggioli	A genomic approach to investigate the specificity of symbiont-conferred defence in the tripartite system aphid – <i>Hamiltonella</i> - parasitoid wasp
S23-P04	1134	Ellen M. Leffler	Parasites strategies of coinfection: the evolution of within-host parasite-parasite interactions in <i>Plasmodium falciparum</i>
S23-P05	1297	Guoxin Cui	Symbiosis shapes microbial spatial organization and functional activity in cnidarian holobionts
S23-P06	1417	Ales Bucek	Evolutionary turnover of symbiotic bacteria and their metabolic genes in termite gut microbiomes

#### Symposium 24: Thematic symposium: colonizing new environments and invasiveness

Poster No.	Abstract ID	Presenter Name	Abstract Title
S24-P01	174	Kiran Masroor	The macroecological impact of thermal tolerance evolution in Phrynosomatid lizards
S24-P02	373	Patricia Zito	Evolutionary History of the Na <sup>+</sup> /H <sup>+</sup> Antiporter Gene Family in Arthropoda
S24-P03	501	Wanying Xu	Convergent Relaxed Selection in Independent Freshwater Adaptation of Landlocked <i>Rhinogobius</i>
S24-P04	514	Yufei Zhou	Parallel evolution of terrestrial egg deposition in Old-World <i>Pila</i> and New-World <i>Pomacea</i> snails ( <i>Ampullariidae</i> )

S24-P05	561	Honglei Shi	Comparison of cold adaptation of <i>Pomacea canaliculata</i> from lakes and paddy fields and the underlying molecular mechanisms
S24-P06	600	Donghee Kim	Invasion genomics trace recent human-mediated expansion events of the swarming fly <i>Plecia longiforceps</i> in East Asia
S24-P07	888	Jinhui Wang	Evolutionary History and Molecular Evolution of Na <sup>+</sup> /K <sup>+</sup> -ATPase alpha-subunit Gene Family in the copepod <i>Eurytemora affinis</i> species complex
S24-P08	947	Zimo Yang	Cyclical parthenogenesis helps expand into marginal habitats in some fitness landscapes
S24-P09	1140	Tina Cai	Evidence of positive selection shaping polar adaptation in fishes
S24-P10	1146	Qi Fu	Genomic insights into evolutionary history and local adaptation of <i>Drosophila suzukii</i>

#### Symposium 25: Advancing Inclusion, Diversity, Equity, and Accessibility in Molecular Biology and Evolution

Poster No.	Abstract ID	Presenter Name	Abstract Title
S25-P01	54	Jianhao Lv	An updated solutions manual and e-learning platform for Ziheng Yang's books: "Computational Molecular Evolution" and "Molecular Evolution: A Statistical Approach"
S25-P02	989	Woojung Yi	Visualization of ancient humans from the Allen Ancient DNA Resource using ArcGIS: applications of interactive web maps for ancient DNA studies
S25-P03	1384	María Fernanda García Rodríguez	Genomic history and ancestral origins of Afro-Mexican populations
S25-P04	1387	Marçal Comajoan Cara	snputils: A Python library for lowering barriers to genetic variation and population structure processing

#### Symposium 30: Open symposium session B

Poster No.	Abstract ID	Presenter Name	Abstract Title
S30-P01	699	Huijuan Bi	Unveiling the Genetic and Molecular Basis of Seasonal Camouflage in Hares
S30-P02	725	MOHAMMED M.TAWFEEQ	Evidence for large intraspecific genome size diversity in arthropods
S30-P03	790	John Lin	Computer Simulation and Mathematical Modeling of the Interactions between Ecological and Sexual Selection to Reveal the Mechanism of Sympatric Speciation
S30-P04	821	Lauren Gieck	Computer Simulations and Analyses of Coupling Among Reproductive Barriers in Late-Stage Sympatric Speciation
S30-P05	849	Gabriela Damentka	Phylogenetic and taxonomic classification of the <i>Microtus (Terricola) grafi</i> based on samples from the Balkan Peninsula using ancient mtDNA
S30-P06	939	Wei Wu	Meta-analysis of antibiotic resistance genes in aquatic environments
S30-P07	1023	Aidan Pugh	Investigating Neuropeptide Reception in <i>Mnemiopsis leidyi</i> : A Bioinformatics Approach to GPCR Identification
S30-P08	1099	Vasili Pankratov	Sperm competition intensifies purifying selection on spermatogenesis-relevant genes in primates
S30-P09	1189	Haruka Yamashita	Evolutionary dynamics under near neutrality: Codon family-specific reversals of natural selection in the <i>Drosophila melanogaster</i> lineage
S30-P10	1032	Theo Busschau	Genomic evolution of ocular horn polymorphism in desert vipers