

Genome Evolution | GfG Symposium 2027



Wednesday, 15 September 2027 - Friday, 17 September 2027

Alte Mensa, Göttingen

Scientific Programme

Evolutionary and Comparative Genomics

Exploring genome evolution across species and populations.

Genome evolution across the tree of life

Adaptation and speciation

Comparative genomics

Whole genome duplication

Epigenomics and Gene Regulation

How chromatin organization and epigenetic modifications influence gene expression

Chromatin architecture

DNA methylation and histone modifications

Regulatory elements and non-coding DNA

Epigenetic inheritance

Sexual and Asexual Genome Evolution

Evolution of sex chromosomes

Origins and maintenance of sexual reproduction

Recombination and genome architecture

Sexual conflict and genomic consequences

Transposable Elements and Genome Innovation

Biology and evolution of transposable elements (TEs)

TE regulation and silencing mechanisms

TEs as drivers of genome structure and function

Roles of TEs in adaptation, development, and disease

Methods and Computational Genomics

Machine learning for genome analysis

Predictive models of gene function

Multi-omics integration

AI in precision medicine

Organelle Genomics: Chloroplast and Mitochondrial Genome Evolution

Origins and evolution of organelle genomes

Endosymbiosis and gene transfer to the nucleus

Structural evolution of chloroplast and mitochondrial genomes

Cytosuclear interactions and coevolution

