

ASHG 2025 Annual Meeting

Monday, Oct 13: Room 103/Level 1

02:00 PM - 05:00 PM

Short Course: UCSC Genome Browser (Part 1 of 3)

Room 103/Level 1 Pre-Meeting Events Basic Basic Researchers

Purchase a ticket to this add-on experience to attend this event. This 2-day short course is designed so that attendees will leave with a strong foundational understanding of the UCSC Genome Browser, including hands-on experience with its core functions and an introduction to its more advanced features. While not intended to create expert-level users, attendees should expect that this course will equip them with the skills and confidence needed to navigate and more effectively use the Genome Browser in their work. View a more detailed description. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 103/Level 1

09:00 AM - 12:00 PM

Short Course: UCSC Genome Browser (Part 2 of 3)

Room 103/Level 1 Pre-Meeting Events Basic Basic Researchers

Purchase a ticket to this add-on experience to attend this event. This 2-day short course is designed so that attendees will leave with a strong foundational understanding of the UCSC Genome Browser, including hands-on experience with its core functions and an introduction to its more advanced features. While not intended to create expert-level users, attendees should expect that this course will equip them with the skills and confidence needed to navigate and more effectively use the Genome Browser in their work. View a more detailed description. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 104AB/Level 1

10:00 AM - 12:00 PM

Nextflow Run: Getting Started with Nextflow for Bioinformatics

Room 104AB/Level 1 Pre-Meeting Events Basic Basic Researchers Translational Researchers

Purchase a ticket to this add-on experience to attend this event. Nextflow is a powerful and flexible open-source workflow management system that simplifies the development, execution, and scalability of data-driven computational pipelines. This workshop is intended as a "getting started" course for students and early-career researchers who are completely new to bioinformatics workflows. Participants will be guided through hands-on, goal-oriented exercises that will allow them to learn the necessary skills for using workflows effectively in their research. Please review the full description on the ASHG website for more information. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 102AB/Level 1

10:00 AM - 12:00 PM

The Human Pangenome: Data, Tools, and Workflows

Room 102AB/Level 1

Pre-Meeting Events

Basic

Basic Researchers

Translational Researchers

Purchase a ticket to this add-on experience to attend this event. This workshop will introduce participants to the new Human Pangenome Reference, how samples were chosen to maximize variation, and the technologies used to build the pangenome. After completing the workshop, attendees will have learned how to access HPRC data and resources, as well as the technologies and methods used to construct pangenome graphs. Participants will be able to conduct variant analyses using the pangenome and utilize tools for mapping their own short- and long-read data to the pangenome. Please review the full description on the ASHG website for more ...

Tuesday, Oct 14: Room 104C/Level 1

10:00 AM - 12:00 PM

Assessing Genetic Variants for Antisense Oligonucleotide Therapy Amenability: Practical Training Workshop and Discussion

Room 104C/Level 1

Pre-Meeting Events

Basic

Basic Researchers

Translational Researchers

Purchase a ticket to this add-on experience to attend this event. Join us for an interactive workshop on evaluating disease-causing DNA variants for their eligibility for antisense oligonucleotide (ASO) therapies. Gain hands-on experience with the newly developed N1C VARIANT guidelines, an international consensus framework for assessing a variant's ASO-amenability. Through live variant assessments, participants will learn how to apply these guidelines in clinical and research settings, equipping them with the knowledge and tools to implement their own ASO-amenability screening programs. Please review the full description on the ASHG website for more information. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 104C/Level 1

01:00 PM - 04:00 PM

ASHG Leadership Workshop: Managing People, Projects, and Progress

Room 104C/Level 1

Pre-Meeting Events

Purchase a ticket to this add-on experience to attend this event. ASHG's Leadership Workshop is designed to support scientists who are eager to launch the next stage of their career and communicate the value of their work. Established leaders in the genetics community will discuss their journey creating and growing a presence in the genetics community, specifically addressing the key tools scientists need to market their research and attract collaborators. Additionally, they'll address the avenues they took to build relationships and networks that sustainably fund their labs. In addition to understanding the next step in their scientific journey, participate in a ...

Tuesday, Oct 14: Room 103/Level 1

01:00 PM - 03:00 PM

Short Course: UCSC Genome Browser (Part 3 of 3)

Room 103/Level 1

Pre-Meeting Events

Basic

Basic Researchers

Purchase a ticket to this add-on experience to attend this event. This 2-day short course is designed so that attendees will leave with a strong foundational understanding of the UCSC Genome Browser, including hands-on experience with its core functions and an introduction to its more advanced features. While not intended to create expert-level users, attendees should expect that this course will equip them with the skills and confidence needed to navigate and more effectively use the Genome Browser in their work. View a more detailed description. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 105/Level 1

02:00 PM - 04:00 PM

Strategies for Communicating Your Science to a Variety of Audiences

Room 105/Level 1

Pre-Meeting Events

Purchase a ticket to this add-on experience to attend this event. In today's world, it is crucial to be able to effectively engage with a variety of audiences on important scientific issues. This workshop aims to equip you with the skills needed to communicate your science clearly and persuasively. By participating, you'll learn tactics for tailoring scientific messages to the knowledge level and interests of a non-scientific audience, acquire tools that successful scientific advocates use to establish credibility and foster long-term, collaborative relationships with policymakers, and engage in practical exercises to refine your communication skills, ensuring you can create effective ...

Tuesday, Oct 14: Room 102AB/Level 1

02:00 PM - 04:00 PM

Pathway Analysis for All: Hands-On Training with Reactome

Room 102AB/Level 1

Pre-Meeting Events

Basic

Basic Researchers

Translational Researchers

Purchase a ticket to this add-on experience to attend this event. Reactome is a curated, peer-reviewed knowledge base, offering high-quality pathway annotations across physiological and pathological processes. This workshop will provide a hands-on introduction to the Reactome pathway database and its suite of analysis tools. Through a combination of short, guided presentations and interactive exercises, participants will gain practical skills in pathway analysis, develop confidence in using Reactome's tools, and explore how AI-driven support can enhance their research experience. Please review the full description on the ASHG website for more information. Purchase your ticket here. Spots are limited.

Tuesday, Oct 14: Room 104AB/Level 1

02:00 PM - 04:00 PM

The Michigan Imputation Server: Data Preparation, Genotype Imputation, and Data Analysis

Room 104AB/Level 1

Pre-Meeting Events

Basic

Basic Researchers

Clinical Researchers

Translational Researchers

Purchase a ticket to this add-on experience to attend this event. Genotype imputation is a key component of modern genetic association studies. The Michigan Imputation Server (MIS) has helped >13,000 researchers from around the world impute >110 million genomes. This workshop is designed for anyone interested in learning how to impute genotypes and how to use the imputed genotypes, avoiding common pitfalls. We encourage participants to ask specific questions about their own projects. We expect that this workshop will enable participants to generate high-quality imputed data and to effectively analyze them. Please review the full description on the ASHG website ...

Tuesday, Oct 14: Ballroom/Level 3

04:15 PM - 05:00 PM

Stronger Together: Advancing Human Genetics Through the Power of Community

Ballroom/Level 3

Plenary Sessions

Basic

This year's Presidential Address will highlight the vital role of community in advancing human genetics and genomics research. It will underscore how collaboration and inclusion are essential to making scientific discoveries that benefit all populations. By embracing global genomic variation, we gain critical insights into human evolutionary history, biological variation, and the genetic underpinnings of disease.

Tuesday, Oct 14: Ballroom/Level 3

05:00 PM - 06:30 PM

Featured Plenary Abstract Session I

Ballroom/Level 3

Plenary Sessions

The top 1% of abstract submissions are presented in plenary sessions at the Annual Meeting. Speakers will deliver 13-minute talks on topics of broad interest to the ASHG community, followed by a 5-minute Q&A period. The full list of presentations will be available in August.

Tuesday, Oct 14: Westin Seaport, Commonwealth Ballroom

07:00 PM - 08:30 PM

Trainee Reception (open to trainee and early career attendees only)

Westin Seaport, Commonwealth Ballroom

Networking and Social Events

Purchase a ticket to this add-on experience to attend this event. The Trainee Reception is where trainees can meet their peers and the Career Development Committee members in person and enjoy a fun, relaxed atmosphere. This informal and interactive event is perfect for making new friends, meeting potential collaborators, and fostering valuable connections. Purchase your ticket here. Spots are limited.

Wednesday, Oct 15: Room 253ABC/Level 2

08:30 AM - 10:00 AM

Genes, Traits, and Identities: Navigating Sex, Gender, and Sexuality in Modern Research

Room 253ABC/Level 2

Ethics and Community Engagement (Including Geneti...

Featured Symposia

All of us hold a wide range of complex traits, including those related to gender identity, sexual orientation, and biological sex. Sex, gender, and sexual orientation are aspects of identity that shape life courses, including health outcomes, and can be targets of discrimination. However, the complexity of these traits is often oversimplified or ignored in research in an effort to reduce noise. In parallel with other historically marginalized and understudied groups, community advocates are imploring researchers to integrate the perspectives of queer communities into research endeavors. In this session, we will address clinical and genetic research issues related to gender ...

Wednesday, Oct 15: Room 205ABC/Level 2

08:30 AM - 10:00 AM

Authentic Engagement Beyond the Lab: Engaging Communities in the Future of Genetic Medicine

Room 205ABC/Level 2

Ethics and Community Engagement (Including Geneti...

Genomic and Precision Medicine

Featured Symposia

Establishing authentic community engagement is essential for amplifying the voices of those most affected by genomic technologies in medicine. To achieve this, we must rethink who is included and what constitutes meaningful engagement. This process may require expanding definitions of expertise to ensure that engagement supports marginalized voices, such as individuals with disabilities, minority and Indigenous populations, rare disease communities, and others impacted by social determinants of health. Current discussions in genetic research focus on the acceptance of genomic medicine, often overlooking the diverse factors shaping trust in genomic medicine in marginalized communities. Engaging these groups may necessitate non-traditional, adaptive, ...

Wednesday, Oct 15: Room 258ABC/Level 2

08:30 AM - 10:00 AM

NIH/NIA-ADSP Artificial Intelligence and Machine Learning Consortium: Gene Discovery and Drug Development for Alzheimer's Disease

Room 258ABC/Level 2

AI and Machine Learning Applications

Featured Symposia

This Featured Research Session aims to be a comprehensive, authoritative, critical, and accessible review and discussion of general interest to the gene discovery and drug development community concerning use of Artificial Intelligence (AI) and Machine Learning (ML) tools for Alzheimer's disease (AD) and AD-related dementia (ADRD). The fast growth of genetics and multi-omics data (Genomics, Transcriptomics, Proteomics, Metabolomics, and Radiomics) and Electronic Health Records in diverse populations from the NIA-funded Alzheimer's Disease Sequencing Project (ADSP) contribute to answering questions, such as how to rapidly identify actionable biomarkers and drug targets, what are the potential implications for precision diagnosis and drug ...

Wednesday, Oct 15: Room 156ABC/Level 1

08:30 AM - 10:00 AM

Genomics at the Incubator: Advancing Neonatal Care Through Translational Insights

Room 156ABC/Level 1

AI and Machine Learning Applications

Bioinformatics and Computational Methods

Ethics and Community Engagement (Including Geneti...

Genomic and Precision Medicine

Featured Symposia

Many genetic conditions result in admission to a neonatal intensive care unit (NICU). Clinical sequencing approaches require careful design to avoid delays in detection of the most severe genetic syndromes that result in NICU admission. Thus, rapid application of cutting-edge genomic technology is essential to NICU care. At the same time, insights gained from neonatal sequencing, such as novel disease-gene relationships or benefits of multi-omic approaches can also be applicable more broadly. In this Featured Symposium, attendees will hear from experts in clinical genetics, computational genomics, population genetics, neonatology, and implementation science. Topics will include incorporation of artificial intelligence into ...

Wednesday, Oct 15: Room 206AB/Level 2

08:30 AM - 10:00 AM

Filling the Placenta Gap

Room 206AB/Level 2

Women's and Reproductive Health

Featured Symposia

The placenta is a vital yet often overlooked organ that forms during pregnancy, connecting the mother and baby. It protects the fetus and delivers essential nutrients needed for growth. The placenta also mediates hormone production and maternofetal gas exchange. Typical placental function supports healthy development, while its dysfunction can lead to complications such as preeclampsia and fetal growth restriction. These conditions impact immediate pregnancy outcomes and long-term health for women and their children. Although one of the most understudied organs in human genetics, recent advances in genomic, epigenomic, and transcriptomic research are revealing the complex regulatory mechanisms of the placenta. ...

Wednesday, Oct 15: Room 210C/Level 2

08:30 AM - 10:00 AM

From Data to Diagnosis: Advancing Rare Disease Research through Collaborative Genomics

Room 210C/Level 2

Bioinformatics and Computational Methods

Rare Diseases

Featured Symposia

Despite the growing availability of genomic data, many rare disease patients remain undiagnosed. Advances in long-read sequencing, multi-omics, and bioinformatics promise to solve more cases and refine gene discovery. This session will explore strategies leveraging large-scale genomic resources to advance rare disease diagnosis. Speakers will discuss the impact of sequencing efforts on gene discovery, improvements in variant interpretation, as well as novel computational tools. Statistical methods integrating de novo and inherited variation will be highlighted for improving the diagnostic yield and understanding disease biology. Finally, the session will emphasize the role of deep phenotyping in refining genotype-phenotype databases like OMIM ...

Wednesday, Oct 15: Room 210AB/Level 2

08:30 AM - 10:00 AM

Beyond Transcriptomics: Can Imaging Bridge the Gap in Variant Interpretation?

Room 210AB/Level 2

Genomic and Precision Medicine

Featured Symposia

This session will explore how high-content imaging (HCI) enhances variant-to-function mapping beyond transcriptomics, providing a multi-dimensional view of cellular responses. While eQTL studies offer a single-gene perspective, evidence suggests GWAS variants act collectively within pathways, influencing effector cell function. HCI enables high-throughput analysis of morphology, protein expression, and organelle function, capturing complex cellular dynamics. Discussions will cover assay development across diverse cell types, applications in immune, metabolic, and neurodevelopmental traits, and advances in machine learning for imaging-based genetic analysis. By integrating genetics, functional genomics, and AI, this session aims to broaden perspectives and accelerate biological insights from large-scale genetic studies.

Wednesday, Oct 15: Ballroom West/Level 3

08:30 AM - 10:00 AM

Integration of Long-Read Sequencing with Multi-Omics Data to Identify Hidden Causal Variants

Ballroom West/Level 3

Bioinformatics and Computational Methods

Functional Genomics

Population Genomics

Featured Symposia

Genome-wide association studies (GWAS) have identified numerous variants linked to disease, but their focus on single-nucleotide polymorphisms (SNPs) often overlooks structural variants (SVs) that may be causal. Long-read sequencing (LRS) enables superior detection of SVs, including insertions, deletions, and repeat expansions, which are difficult to resolve with short-read sequencing. This session will be an overview of the benefits of long-read sequencing to identify complex variants and explore the integration of multi-omics data to uncover how these variants are having an effect on gene regulation and disease. We will highlight advances in SV-QTL mapping, disease risk prediction, and regulatory element analysis. ...

Wednesday, Oct 15: Exhibit & Poster Hall/Lower Level

10:00 AM - 10:45 AM

Coffee Break: Visit Industry Partners, Posters, and Join Industry CoLabs and Events

Exhibit & Poster Hall/Lower Level

Networking and Social Events

Wednesday, Oct 15: Room 103/Level 1

10:00 AM - 10:45 AM

Shared Interest Group Meetup: Genetic Counseling

Room 103/Level 1

Networking and Social Events

Join your fellow genetic counselors for connection, collaboration, and conversation. Sponsored by Sanofi, this meetup offers a unique opportunity to network with peers and explore the latest developments in genetic science and patient-centered care. Whether you're passionate about clinical innovation, research, or advocacy, this event is designed to foster meaningful dialogue and strengthen our professional community.

Wednesday, Oct 15: Room 104AB/Level 1

10:00 AM - 10:45 AM

Shared Interest Group Meetup: Phenotypes and Genotypes

Room 104AB/Level 1

Networking and Social Events

Join us at the Phenotypes and Genotypes SIG meetup for an incredible opportunity to connect with colleagues. This is your chance to collaborate, discuss cutting-edge research, and forge valuable connections with peers in your field. Don't miss out!

Wednesday, Oct 15

10:45 AM - 11:45 AM

Abstract-Driven Platform Sessions 1: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Wednesday, Oct 15: Room 104AB/Level 1

11:45 AM - 01:15 PM

Lessons from the Field: A Dialogue on Promoting Opportunity and Engagement in Human Genetics and Genomics

Room 104AB/Level 1

Professional Education Sessions

Purchase a ticket to this add-on experience to attend this event. This luncheon will feature interactive discussions on strategies for building a workforce where all individuals are encouraged to share their varied perspectives and experiences to enrich and benefit scientific knowledge. Shoumita Dasgupta, PhD — a geneticist, professor, author, and educator — is the featured keynote speaker and facilitator for these empowering conversations. This is a ticketed event and all are welcome. Purchase your ticket [here](#). Spots are limited.

Wednesday, Oct 15: Room 102AB/Level 1

11:45 AM - 01:15 PM

Career Development Panel: Starting a Lab, Then vs Now

Room 102AB/Level 1

Professional Education Sessions

Purchase a ticket to this add-on experience to attend this event. The paradox of being an independent principal investigator is that you are not hired based on the needs of this role but based on your postdoctoral accomplishments. While it makes sense to put science first, our training often does not reflect the challenges we face in an independent role. Personnel management, budgeting, time management, the myriad service requests, and the ever-important writing of grants and acquisition of external money: these are all critical parts of being an independent leader of a laboratory and member of an academic faculty. Moreover, ...

Wednesday, Oct 15

11:45 AM - 01:15 PM

Break: Professional Development and Industry Events

Networking and Social Events

None

Wednesday, Oct 15

01:30 PM - 02:30 PM

Abstract-Driven Platform Sessions 2: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Wednesday, Oct 15: Exhibit & Poster Hall/Lower Level

02:30 PM - 04:30 PM

Poster Session - Wednesday

Exhibit & Poster Hall/Lower Level

Poster Presentations

More than 3,000 abstracts are presented as posters, grouped by topic in the Exhibit & Poster Hall. Each poster will be displayed for one day only, and the presenter will be available at their poster during the poster session on that day. Please note, only Category 1 CEUs for Genetic Counselors are available for the poster sessions.

Wednesday, Oct 15: Room 206AB/Level 2

02:45 PM - 03:45 PM

ASHG Advocacy in Action: Driving Science Policy Forward

Room 206AB/Level 2

Professional Education Sessions

Join us for an energizing session that puts advocacy at the heart of scientific progress. This interactive discussion will spotlight how ASHG and its members, in collaboration with partners like Research!America and the Coalition for the Life Sciences, are shaping the future of science policy - one conversation, one campaign, and one coalition at a time. This forum will offer a behind-the-scenes look at what's been happening over the past year, what we've achieved together, where we go from here. Whether you're a seasoned advocate or just getting started, you'll leave with insights and inspiration to help advance the future ...

Wednesday, Oct 15: Ballroom/Level 3

04:30 PM - 05:00 PM

Awards Recognition I

Ballroom/Level 3

Award Ceremonies

ASHG recognizes two of its annual professional award recipients, each of whom will speak on their accomplishments: Harry (Hal) Dietz, Lifetime Achievement Award recipient and Carole Ober, Mentorship Award recipient. To learn more about ASHG's award programs, visit [ASHG's awards page](#).

Wednesday, Oct 15: Ballroom/Level 3

05:00 PM - 06:30 PM

Presidential Symposium: Unraveling the Genetic Foundations of Human Disease: Insights from the Past, Present, and Future

Ballroom/Level 3

Population Genomics

Plenary Sessions

A fundamental goal of human population genetics is to understand the evolutionary forces impacting the origins and global distribution of disease. Novel technologies and sophisticated methods provide unprecedented insights into how our evolutionary history continues to influence human disease. When modern humans first migrated out of Africa, they encountered and interacted with archaic human populations such as Neanderthals and Denisovans. Genomic studies of modern humans reveal that some segments of DNA inherited from Neanderthals and Denisovans are associated with an altered risk for common diseases. Moreover, the establishment of large global genomic databases containing detailed electronic health records allows us ...

Wednesday, Oct 15: Westin Seaport, Commonwealth Ballroom

07:00 PM - 08:00 PM

Engagement and Belonging Reception

Westin Seaport, Commonwealth Ballroom

Networking and Social Events

Purchase a ticket to this add-on experience to attend this event. This event offers an occasion to celebrate together the importance of engagement and belonging in human genetics and genomics. The reception will feature remarks from key ASHG leaders as well as provide networking opportunities for the research and training community. Purchase your ticket [here](#). Spots are limited.

Thursday, Oct 16

08:30 AM - 10:00 AM

Abstract-Driven Platform Sessions 3: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Thursday, Oct 16: Exhibit & Poster Hall/Lower Level

10:00 AM - 10:45 AM

Coffee Break: Visit Industry Partners, Posters, and Join Industry CoLabs and Events

Exhibit & Poster Hall/Lower Level

Networking and Social Events

Thursday, Oct 16: Room 104C/Level 1

10:00 AM - 10:45 AM

ASHG Spotlight: Grassroots Advocacy in Practice

Room 104C/Level 1

Networking and Social Events

Join us for a networking event showcasing the impact that the ASHG Advocacy Certificate for Human Genetics and Genomics Trainees (ACGT) are having in their communities. Members will share lightning talks on their projects and highlight how the ACGT program has empowered them to integrate advocacy into their careers. This is your chance to hear real-world stories of advocacy in action. Come network with other ASHG members passionate about making a difference in public policy and their local communities.

Thursday, Oct 16: Room 104AB/Level 1

10:00 AM - 10:45 AM

Shared Interest Group Meetup: Bioinformatics and Computational Methods

Room 104AB/Level 1

Networking and Social Events

Join us at the Bioinformatics and Computational Methods SIG meetup for an incredible opportunity to connect with colleagues. This is your chance to collaborate, discuss cutting-edge research, and forge valuable connections with peers in your field. Don't miss out!

Thursday, Oct 16

10:45 AM - 11:45 AM

Abstract-Driven Platform Sessions 4: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Thursday, Oct 16: Room 104AB/Level 1

11:45 AM - 01:15 PM

Career Development Topics: A Networking Event

Room 104AB/Level 1

Professional Education Sessions

Purchase a ticket to this add-on experience to attend this event. Connect with other genetics and genomics professionals in small group discussions at this informal networking event. Discussions will revolve around a range of topics including career transitions, career skills/leadership skills, building community/networking, careers in genetics, and so much more. During the event, attendees will have the opportunity to rotate among the tables to discuss the topics that are of interest to them. Geneticists and genomicists of all career stages are encouraged to attend. Find your next colleague, collaborator, or friend! Purchase your ticket [here](#). Spots are limited.

Thursday, Oct 16

11:45 AM - 01:15 PM

Break: Professional Development and Industry Events

Networking and Social Events

Thursday, Oct 16

01:30 PM - 02:30 PM

Abstract-Driven Platform Sessions 5: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Thursday, Oct 16: Gene-ius Lounge, Exhibit & Poster Hall/Lower Level

02:30 PM - 04:00 PM

Speed Mentoring

Gene-ius Lounge, Exhibit & Poster Hall/Lower Level

Networking and Social Events

During this new event, trainee and early career attendees are invited to sign-up prior to participate in brief 15-minute sessions with leaders in the genetics/genomics profession, designed to deepen their understanding of various career paths. This event offers a unique opportunity to gain valuable insights into various career journeys and learn strategies for professional growth.

Thursday, Oct 16: Exhibit & Poster Hall/Lower Level

02:30 PM - 04:30 PM

Poster Session - Thursday

Exhibit & Poster Hall/Lower Level

Poster Presentations

More than 3,000 abstracts are presented as posters, grouped by topic in the Exhibit & Poster Hall. Each poster will be displayed for one day only, and the presenter will be available at their poster during the poster session on that day. Please note, only Category 1 CEUs for Genetic Counselors are available for the poster sessions.

Thursday, Oct 16: Ballroom/Level 3

04:30 PM - 05:00 PM

Awards Recognition II

Ballroom/Level 3

Award Ceremonies

ASHG recognizes two of its annual professional award recipients, each of whom will speak on their accomplishments: Eric Green, Leadership Award recipient and Elizabeth Bhoj, Early Career Award recipient. Winners of the AJHG Award for Outstanding Trainee Publication and HGGGA Award for Outstanding Early Career Publication are also recognized. To learn more about ASHG's award programs, visit ASHG's awards page.

Thursday, Oct 16: Ballroom/Level 3

05:00 PM - 06:30 PM

Featured Plenary Abstract Session II

Ballroom/Level 3

Plenary Sessions

The top 1% of abstract submissions are presented in plenary sessions at the Annual Meeting. Speakers will deliver 13-minute talks on topics of broad interest to the ASHG community, followed by a 5-minute Q&A period. The full list of presentations will be available in August.

Thursday, Oct 16: Westin Seaport, Commonwealth Ballroom

07:45 PM - 08:45 PM

Sweets and SNPs: Dessert Social

Westin Seaport, Commonwealth Ballroom

Networking and Social Events

Join us for a casual networking social where you can connect with fellow attendees, share insights, and build lasting relationships. Enjoy desserts, engage in stimulating conversations, and expand your professional network!*Please note, capacity is limited.

Friday, Oct 17: Room 205ABC/Level 2

08:30 AM - 10:00 AM

The Cell Village: A Platform for Population-Scale Genetic Studies in a Dish

Room 205ABC/Level 2

Functional Genomics

Featured Symposia

Cell villages, also known as “village in a dish” studies, offer a cutting-edge experimental platform for dissecting genetic, molecular, and phenotypic heterogeneity under baseline conditions and in response to cell-extrinsic perturbations, like stress and toxicant exposures. By co-culturing genetically diverse cell lines in a shared in vitro environment, this approach streamlines the process from variant identification to mechanistic insights and holds tremendous promise for clarifying relationships between genotype and phenotype in fields like QTL mapping, pharmacogenomics, and functional phenotyping. This session brings together four experts to discuss breakthroughs in disease modeling and functional genomics enabled by cell village technologies, thus ...

Friday, Oct 17: Room 206AB/Level 2

08:30 AM - 10:00 AM

Clinical and Translational Aspects of Genetic Hearing Loss

Room 206AB/Level 2

Genomic and Precision Medicine

Rare Diseases

Featured Symposia

Over the past three decades, hundreds of genes and thousands of variants have been discovered for childhood hearing loss. Here we will present the remarkable progress in the diagnosis and management of genetic hearing loss within multiple ethnic populations based on a robust framework of determining pathogenicity of variants and a well-curated variant database, which guide both genetic counseling and referral for gene therapy. However, the genetics community is not fully aware that therapies for hearing loss involving multiple genes are being developed, which could be a barrier for genetic referrals and appropriate genetic counseling. Increased awareness of gene therapies, ...

Friday, Oct 17: Room 253ABC/Level 2

08:30 AM - 10:00 AM

Genomes from the Global South: Population Genomics Projects and their Impact on Precision Medicine in Global Populations

Room 253ABC/Level 2

Ethics and Community Engagement (Including Geneti...

Population Genomics

Featured Symposia

The global south with excess of two thirds of the world population is grossly underrepresented in genetics. The lack of genetic information disables these populations to adequately utilize the enormous genetic knowledge available connecting genes with diseases and the practicality of genomics informed patient stratification. In this session we share findings of three genome projects conducted on three of the largest population groups from three disparate continents of the world: Africa, Brazil and India. Besides inferring unprecedented details of global prehistory, we discuss how the genomes from the global south would enhance our understanding in disease genomics. We discuss how ...

Friday, Oct 17: Room 258ABC/Level 2

08:30 AM - 10:00 AM

Decoding Human Aging: From Single-Cell Resolution to Population-Scale Insights

Room 258ABC/Level 2

AI and Machine Learning Applications

Bioinformatics and Computational Methods

Featured Symposia

Recent advances in omics profiling are transforming our ability to study complex biological processes. This symposium brings together cutting-edge research using novel technologies and analytical approaches to decode the aging process and its underlying biology. Presentations will cover single-cell methylation profiling technology revealing age-related epigenetic changes, innovative machine learning approaches for analyzing methylation patterns across populations, statistical frameworks for detecting mosaic chromosomal alterations in aging tissues, and large-scale studies integrating proteomics and genomics to identify aging biomarkers. Together, these talks highlight how advanced omics can shed light on the complex biology of aging, with implications for understanding age-related diseases and ...

Friday, Oct 17: Ballroom West/Level 3

08:30 AM - 10:00 AM

Deep Learning for Non-coding Variant Interpretation

Ballroom West/Level 3

AI and Machine Learning Applications

Functional Genomics

Featured Symposia

Non-coding genetic variants are important drivers of trait variation in humans and other eukaryotic species. As a result, functionally characterizing non-coding variants is a major goal of modern genetics, with important implications for our understanding of the molecular basis of disease and evolution. Deep learning models are a powerful approach for predicting regulatory activity from genomic sequence and interpreting the cis-regulatory code. In this session, four leading scientists will present their work on leveraging such models to interpret the effects of regulatory variation. These talks will highlight recent advances in deep learning for variant effect interpretation, limitations in existing models, ...

Friday, Oct 17: Room 210C/Level 2

08:30 AM - 10:00 AM

Breakthroughs in Down syndrome Research in the Age of the NIH INCLUDE Project

Room 210C/Level 2

Genomic and Precision Medicine

Featured Symposia

Down syndrome, the genetic condition caused by trisomy 21, is the most common chromosomal abnormality and a leading cause of intellectual and developmental disability. People with Down syndrome experience a differential clinical risk profile, whereby they are protected from developing certain medical conditions, such as solid malignancies and hypertension, but highly predisposed to many others, including congenital heart defects, vision and hearing issues, complications from respiratory infections, autoimmune disorders, hematological malignancies, autism spectrum disorders, and Alzheimer's disease. To advance research in this area, in 2018 the National Institutes of Health launched the INvestigation of Co-occurring conditions across the Lifespan to ...

Friday, Oct 17: Room 210AB/Level 2

08:30 AM - 10:00 AM

Machine Learning-Derived Phenotype Refinement for Genomic Discovery and Prediction

Room 210AB/Level 2

AI and Machine Learning Applications

Genomic and Precision Medicine

Featured Symposia

Traditionally, genomics has relied on binary phenotypes. This session explores the next frontier: ML-derived phenotypes utilizing multidimensional data for accelerating discovery and refining disease prediction. The first speaker will present ML-based polygenic and multi-omic risk models, showcasing large-scale imputed proteomics in >700,000 individuals to identify therapeutic targets, validated via CRISPR. The second speaker will discuss how ML-driven MRI phenotyping of T1 time enabled the discovery of key genetic loci for fibrosis. The third speaker will demonstrate how ML-driven coronary angiography integrates genomic risk factors—monogenic variants, polygenic risk scores, and clonal hematopoiesis—to predict disease outcomes. The final speaker will explore how ...

Friday, Oct 17: Room 156ABC/Level 1

08:30 AM - 10:00 AM

Bench to Bedside: The Clinical Impact of the Latest Advances in Epilepsy Neurogenetics

Room 156ABC/Level 1

Genomic and Precision Medicine

Featured Symposia

Clinical Researchers

This session focuses on the cutting-edge science behind the success of the latest advances in epilepsy neurogenetics that have been or will be clinically impactful. Session highlights include: an overview of an evidence-based genetic testing guideline that has improved access to care; comparison of the diagnostic yield of next-generation sequencing gene panels vs. whole exome/genome vs. long-read sequencing; mosaicism and somatic variants found on neurosurgical pathology for treatment-resistant epilepsy; novel findings from comparative paleogenomic analyses and machine learning; precision medicine implications of genetic findings; and what is coming next in the therapeutic pipeline (e.g. ASOs). We will also discuss ethical ...

Friday, Oct 17: Exhibit & Poster Hall/Lower Level

10:00 AM - 10:45 AM

Coffee Break: Visit Industry Partners, Posters, and Join Industry CoLabs and Events

Exhibit & Poster Hall/Lower Level

Networking and Social Events

Friday, Oct 17: Room 104AB/Level 1

10:00 AM - 10:45 AM

Shared Interest Group Meetup: Emerging Laboratory Technologies

Room 104AB/Level 1

Networking and Social Events

Join us at the Emerging Laboratory Technologies SIG meetup for an incredible opportunity to connect with colleagues. This is your chance to collaborate, discuss cutting-edge research, and forge valuable connections with peers in your field. Don't miss out!

Friday, Oct 17

10:45 AM - 11:45 AM

Abstract-Driven Platform Sessions 6: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Friday, Oct 17: Gene-ius Lounge, Exhibit & Poster Hall/Lower Level

11:45 AM - 01:15 PM

Hiring Mixer

Gene-ius Lounge, Exhibit & Poster Hall/Lower Level

Networking and Social Events

The Career Hub will be the home of ASHG's hiring mixer, designed to connect attendees that are hiring with potential employees looking for a job through a casual and social setting. Those looking to hire can meet a wider range of potential candidates in a shorter time and assess their fit for any open role(s) on your team. Job seekers can network with multiple employers simultaneously, learn more about different companies and labs, and stand out from the crowd through face-to-face interaction.

Friday, Oct 17: Room 104AB/Level 1

11:45 AM - 01:15 PM

Behind-the-Scenes: Publications Workshop Luncheon

Room 104AB/Level 1

Professional Education Sessions

To attend this event, you must purchase a ticket during the registration process. This workshop will provide you with information to help navigate the scientific publication process. Journal editors will give you a behind scenes view of scientific publishing through a series of small group discussions. Come prepared to ask questions and network with editors from leading genetics and genomics journals. This session is geared towards trainees and junior faculty who are relatively new to publishing.

Friday, Oct 17: Room 102AB/Level 1

11:45 AM - 01:15 PM

Applications of Population Descriptors in Genomics Research

Room 102AB/Level 1

Professional Education Sessions

To attend this event, you must purchase a ticket during the registration process. Join us for ASHG's Professional Practice and Social Implications (PPSI) committee-led discussion on the ethical use of population descriptors in human genetics and genomics research. Panelists will discuss appropriate usage of legacy data sets, the international movement toward harmonizing population descriptor standards, and how and why to use population descriptors in genomics research. There will also be time for audience engagement and interactive case studies, where participants can further engage with the many considerations that arise with using population descriptors.

Friday, Oct 17

11:45 AM - 01:15 PM

Break: Professional Development and Industry Events

Networking and Social Events

Friday, Oct 17

01:30 PM - 02:30 PM

Abstract-Driven Lightning Talks: Listings available in August.

Lightning Talks

Lightning Talk sessions highlight the top-scoring poster abstracts in an oral presentation. In addition to presenting their poster in the poster hall, speakers selected for Lightning Talks will each give a three-minute talk followed by two minutes for Q&A.

Friday, Oct 17: Exhibit & Poster Hall/Lower Level

02:30 PM - 04:00 PM

Headshot Lounge

Exhibit & Poster Hall/Lower Level

Networking and Social Events

Need an updated professional headshot? Make sure you check out the Headshot Lounge hosted at booth #359 in the Exhibit Hall on Friday, October 17, from 2:30 pm – 4:00 pm (date and time subject to change). Headshots are free, but space is on a first-come, first-served basis. *Attendees wishing to receive their headshots must have their badge scanned for ASHG to email you a link to download your headshot; these scanned contacts will also be shared with the official headshot lounge sponsor.

Friday, Oct 17: Exhibit & Poster Hall/Lower Level

02:30 PM - 04:30 PM

Poster Session - Friday

Exhibit & Poster Hall/Lower Level

Poster Presentations

More than 3,000 abstracts are presented as posters, grouped by topic in the Exhibit & Poster Hall. Each poster will be displayed for one day only, and the presenter will be available at their poster during the poster session on that day. Please note, only Category 1 CEUs for Genetic Counselors are available for the poster sessions.

Friday, Oct 17: Room 253ABC/Level 2

03:00 PM - 04:30 PM

ASHG Policy Forum: Biosecurity in the New Age of Biotechnology

Room 253ABC/Level 2

Professional Education Sessions

During this policy forum, a range of stakeholders will engage in a panel discussion on national security as it relates to biotechnology innovation and research, particularly concerns and opportunities related to human genetics and genomics research in the age of artificial intelligence, big data, and gene editing. This session aims to foster collaboration and understanding between scientists and security professionals, ensuring that the benefits of innovation are realized while addressing potential challenges.

Friday, Oct 17: Ballroom/Level 3

04:30 PM - 05:00 PM

Awards Recognition III

Ballroom/Level 3

Award Ceremonies

ASHG recognizes three of its annual professional award recipients, each of whom will speak on their accomplishments: Anthony Wynshaw-Boris, Advocacy Award recipient; Audrey Hendricks, Education Award recipient; and Mike Talkowski, Scientific Achievement Award recipient. Winners of the ASHG Trainee Research Excellence Awards are also announced. To learn more about ASHG's award programs, visit ASHG's awards page.

Friday, Oct 17: Ballroom/Level 3

05:00 PM - 06:30 PM

Featured Plenary Abstract Session III

Ballroom/Level 3

Plenary Sessions

The top 1% of abstract submissions are presented in plenary sessions at the Annual Meeting. Speakers will deliver 13-minute talks on topics of broad interest to the ASHG community, followed by a 5-minute Q&A period. The full list of presentations will be available in August.

Saturday, Oct 18

08:30 AM - 09:30 AM

Abstract-Driven Platform Sessions 7: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Saturday, Oct 18

10:00 AM - 11:00 AM

Abstract-Driven Platform Sessions 8: Listings available in August.

Platform Sessions

The top 10% of abstract submissions are presented in platform sessions at the Annual Meeting. Speakers will deliver 10-minute talks, followed by a 5-minute Q&A period, covering an array of topics for varying audiences. The full list of presentations will be available in August.

Saturday, Oct 18: Ballroom/Level 3

11:15 AM - 12:45 PM

AI-Powered Genomics: Transforming Data into Insights

Ballroom/Level 3

AI and Machine Learning Applications

Genomic and Precision Medicine

Plenary Sessions

Artificial intelligence (AI) is revolutionizing the field of genomics, unlocking breakthroughs in both research and healthcare that were once unimaginable. By accelerating the analysis of large genomic datasets, AI uncovers critical patterns that illuminate gene networks, highlight risks for common diseases, and help pinpoint the causes of rare conditions. AI also plays a key role in advancing precision medicine by developing novel treatments, customizing therapies to individual genetic profiles, and predicting patient responses to therapies, all of which enhance diagnostic accuracy and treatment outcomes. However, the growing integration of AI in genomics raises important ethical considerations, including concerns about data ...



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