WELCOME TO Pittsburgh

On behalf of the National Society of Genetic Counselors (NSGC), the Annual Education Conference (AEC) Planning Subcommittee and the NSGC Board of Directors, thank you for joining us!

NSGC is helping genetic counselors pioneer expanding roles and new areas of healthcare with more than 24 educational sessions designed to support your professional development. Sessions will cover a variety of topics at the forefront of genomics such as newborn and fetal sequencing, cancer panel testing, and sharing data as a means to improve patient care. Educational highlights you do not want to miss include the pre-conference symposium *Diagnostic Exome Sequencing as the Standard of Care* (page 10), the Dr. Beverly Rollnick Memorial Lecture featuring a documentary screening and discussion with filmmaker Kristen Powers (page 12) and the NSGC Professional Issues Panel (page 13). Reference pages 10-15 for sessions submitted/sponsored by your NSGC Special Interest Group (SIG). Maximize your AEC experience by building your schedule around education sessions specific to your professional interests.

Expanding your expertise and professional development goes far beyond the valuable education taking place within the lecture room walls. Take advantage of the Welcome Reception, SIG meetings and the AEConnect area to network with 2,000 of your peers. Visit the Exhibitor Suite to see the latest product offerings and services within our profession. Catch up with friends and make new connections during receptions, program reunions and daily breaks. Attend the State of the Society Address, the NSGC Business Meeting and the SIG Fair to learn more about the latest efforts of your professional organization. Experience all of the incredible activities this week has to offer!

We hope you enjoy your time here in Pittsburgh, absorbing content on the latest innovations and developments in the profession of genetic counseling, all while enjoying this amazing city!

Lori A.H. Erby, PhD, CGC
2015 AEC Subcommittee Chair

Jason Flanagan, MS, CGC
2015 AEC Subcommittee Vice-Chair

Table of Contents

Download the Official AEC Mobile App

NSGC delivers everything AEC directly to your fingertips via the 2015 NSGC AEC mobile app. View conference session descriptions, speakers and scheduling information. Use the interactive maps to navigate the Exhibitor Suite with ease, search the exhibitor directory and stay in the know with conference alerts.

On your smartphone or tablet, search for "**NSGC 2015 AEC**" in your app store or direct your mobile browser to **www.nsgc.org/mobileapp**.

Follow what others are saying or post your own insights on Twitter during the AEC using **#NSGC2015.**

About the 34th Annual Education Conference

Statement of Purpose

The 34th Annual Education Conference (AEC) focuses specifically on the educational needs of genetic counselors. The AEC addresses a wide variety of genetic counseling practice areas and provides the latest information for the genetic counseling profession. Attendees will gain important information to support and enhance their current practice at sessions such as: *Shift Happens: Penetrance, Pedigrees and New Perspectives on Development Brain Dysfunctional* and *Working with Payers to Develop and Apply Genetic Testing Policies*. The Exhibitor Suite will provide current information and the opportunity to talk with exhibitors about new developments in genetics. The pre-conference symposia will provide in-depth information on specific topics relevant to the field of genetic counseling.

Continuing Education

NSGC has been approved to offer up to 3.32 CEUs or 33.25 Contact Hours at the Annual Education Conference. CEUs earned through these activities will be accepted by the American Board of Genetic Counseling (ABGC) as Category 1 CEUs for purposes of certification and recertification. Individuals must be certified at the time of participation in the activity in order for it to count towards recertification.

Pre-conference Symposia Earn up to: 0.50 CEUs | 5.00 Contact Hours

AEC General Sessions Earn up to: 2.17 CEUs | 21.75 Contact Hours

Sponsored Meal Sessions Earn up to: 0.65 CEUs | 6.50 Contact Hours

Total Earn up to: 3.32 CEUs | 33.25 Contact Hours

IMPORTANT: *NSGC will only be able to verify the credits you earned for the sessions for which you provide an attendance verification code and complete an evaluation in the online system.*

Evaluation Process/Claiming CEUs

Individuals claiming CEUs MUST complete evaluations, however NSGC greatly appreciates feedback from all attendees. An attendance verification code will be provided in each session. Please record this code as you will be required to enter the attendance verification code to evaluate the session. Codes are being used this year instead of scanning attendee badges to verify attendance. See page 40 for a grid to assist you in tracking verification codes for the sessions that you have attended.

To complete your evaluations, follow these steps:

1. Log in to the NSGC website at **www.nsgc.org/2015aec** and select the **Evaluation** link from the navigation menu.
2. Click on the **Evaluation** link to be directed to the evaluation website.
3. For each session, add the attendance verification code that you received in the lecture room and then evaluate the session.
4. Save each session as you go, because the website will log you out after 10 minutes of inactivity. (If this happens, you must go back to the NSGC website and repeat steps 1 and 2 to log back in and re-enter any unsaved information.)
5. Once you have completed evaluations for all sessions attended, you will be able to evaluate the overall conference by selecting "Return to Registered Events."
6. Review your evaluation to make sure you claimed credit for each session you attended. Then print and email your final certificate of credits earned for your records. Note: once you have printed your certificate, you will NOT be able to go back and edit any more sessions.

The deadline to complete your evaluations is December 15, 2015.

Please contact the NSGC Executive Office at **nsgc@nsgc.org** if you need assistance.

Overall Conference Evaluation

To complete an evaluation of the overall conference, please follow the steps listed below:

1. Log in to the NSGC website at **www.nsgc.org/2015aec** and select the **Evaluation** link from the navigation menu.
2. Click on the **Evaluation** link to be directed to the evaluation website.
3. Select the **Overall/Post-Event** link; then evaluate the conference.

2015 AEC Session Recordings

Maximize your AEC experience – view sessions you missed in Pittsburgh, earn additional CEUs and access the valuable information you gathered by purchasing online session recordings.

Session recording packages featuring all pre-conference symposia*, plenary and educational breakout sessions* are available for purchase. The online recordings will contain synced audio and PowerPoint presentations for each session. To earn Category 1 CEUs, it is required that you complete and pass a quiz included at the conclusion of each session.

Registered attendees will be able to order online content during the AEC at the discounted rate, or following the conference at an increased rate. Purchase your online recording package in conjunction with your AEC registration for a special discounted rate.**

NEW THIS YEAR!

We have combined our previous packages to give you access to more education at one low price.

If you register for the AEC and/or pre-conference symposia, the full session recordings package of the pre-conference symposia and AEC recordings is available for the special price of $99.

Visit **www.nsgc.org/2015aec** to add session recordings to your registration.

** With speaker approval*

*** Discounted package rates only available when purchased in conjunction with a conference registration.*

General Information

Registration Hours

David L. Lawrence Convention Center

Tuesday, October 20	5:00 pm – 8:00 pm
Wednesday, October 21	7:00 am – 8:00 pm
Thursday, October 22	6:30 am – 8:00 pm
Friday, October 23	7:00 am – 8:00 pm
Saturday, October 24	7:00 am – 3:00 pm

Exhibitor Suite Hours

David L. Lawrence Convention Center

Wednesday, October 21	6:15 pm – 8:30 pm
Thursday, October 22	11:30 am – 3:00 pm 6:00 pm – 8:00 pm
Friday, October 23	11:30 am – 4:30 pm 4:15 pm: Passport to Prizes Drawing

Message Center and Job Boards

Bulletin boards with push-pins are available at the AEConnect area, in the Exhibitor Suite for attendees to leave messages for colleagues or post job opportunities. Advertising is not permitted. Material posted will be monitored and inappropriate information is subject to removal at NSGC's discretion.

Attendee List Information

Attendee lists were posted on the NSGC website prior to the conference and an updated list will be posted after the conference. Lists are available at the registration desk and are available for reproduction at the attendee's expense at the FedEx Office Print and Ship Center across the street from the Convention Center. Attendee lists are provided solely for networking and may not be used for solicitation purposes. NSGC is not responsible for errors and/or omissions.

Handouts and Presentations

NSGC offers electronic versions of AEC session handouts when provided in advance by AEC speakers. A copy of the handouts will be available for reproduction at the attendee's expense at the FedEx Office Print and Ship Center across the street from the Convention Center. All session handouts (if provided by the speaker) are posted on the NSGC website and will be available following the conference until March 1, 2016. To download handouts go to **www.nsgc.org/2015AECHandouts**.

If you are also registered for a pre-conference symposium, you will be given access to the pre-conference symposia page at **www.nsgc.org/2015AECPCSHandouts**.

Business Center Hours

The FedEx Office Print and Ship Center is located across the street from the David L. Lawrence Convention Center at 960 Penn Ave. and is open during the following hours:

Monday – Friday	7:30 am – 9:00 pm
Saturday	8:00 am – 6:00 pm
Sunday	Closed

Internet Access

NSGC attendees will have wireless Internet available in all meeting spaces and common areas at the David L. Lawrence Convention Center.

Internet at the Convention Center can be accessed by using the network "NSGC2015." No password is required.

NSGC gratefully acknowledges our wireless Internet sponsor at the Convention Center:

sequenom Laboratories

Many of our conference hotels also offer wireless Internet. Please check with the front desk at your hotel for more information.

Sponsored Sessions

Sponsored meal sessions are available for pre-registration. If you pre-registered to attend a session, a ticket was printed with your badge at registration. In order to be admitted to each session, please bring your conference badge and the ticket that pertains to that session. We encourage you to arrive early for each session to allow all attendees time to be seated. If you did not pre-register for a session but are still interested in attending, you are welcome to join the waiting line outside the room. We cannot guarantee you will be able to attend the session, but if all pre-registered attendees are seated and seats are available, we will accommodate anyone waiting on a first-come, first-served basis.

Please note that not all attendees will receive food and beverage with their admittance. Please check your ticket to see if the sponsor will provide food, or if you are encouraged to bring your own.

Executive Office Information

NSGC Executive Office
330 N. Wabash Avenue, Suite 2000
Chicago, IL 60611 USA
Phone: 312.321.6834
Fax: 312.673.6972
Email: nsgc@nsgc.org
Website: www.nsgc.org

Executive Director
Meghan Carey
mcarey@nsgc.org

Schedule-At-A-Glance

Wednesday, October 21

7:00 AM – 8:00 AM	AEC Pre-conference Symposia Breakfast – *West Atrium*					
8:00 AM – 2:00 PM	CEU Pre-conference Symposia					
	A01 Beyond the Usual Suspects: Updates on Counseling and Management Strategies for Rare Inherited Cancer Predisposition Syndromes *Room 319/320/321*	**A02** Diagnostic Exome Sequencing as the Standard of Care *Room 315/316*	**A03** Feeling Overwhelmed? Advocating for Resources in the Current Healthcare Environment *Room 406*	**A04** Qualitative Research 101: A Crash-course for Genetic Counselors *Room 411*	**A05** Sequence Variant Interpretation for the Clinical Genetic Counselor *Room 317/318*	**A06** A Womb with a View: A Fetal Surgery Primer for Genetic Counselors *Room 403/404/405*
11:00 AM – 3:00 PM	Food and Beverage Concessions Open – *West Atrium*					
2:00 PM – 2:30 PM	NSGC SIG Fair – *Room 408/409/410*					
2:00 PM – 3:15 PM	AEC 101 and Welcome to the AEC SIG Fair: A Roadmap to Enhance Your First AEC Experience – *Room 407*					
3:30 PM – 3:45 PM	AEC Opening Remarks – *Spirit of Pittsburgh Ballroom*					
3:45 PM – 5:15 PM	CEU Janus Series – *Spirit of Pittsburgh Ballroom*					
	A07 Advances in the Understanding of Paragangliomas and Pheochromocytomas: Underappreciated and Highly Genetic	**A08** Preimplantation Genetic Testing: Ushering in a New Era	**A09** *DICER1* Syndrome: A Newly Recognized Cancer Predisposition Syndrome			
5:15 PM – 5:45 PM	Natalie Weissberger Paul National Achievement Award – *Spirit of Pittsburgh Ballroom*					
5:45 PM – 6:00 PM	CEU **A10** Beth Fine Kaplan Best Student Abstract Award – *Spirit of Pittsburgh Ballroom*					
6:00 PM – 6:15 PM	CEU **A11** Best Full Member Abstract Award – *Spirit of Pittsburgh Ballroom*					
6:15 PM – 8:30 PM	Welcome Reception in the Exhibitor Suite – *Hall A*					
6:45 PM AND ON	Various Program Reunions (See p. 8 for more information and locations)					
	Canadian Programs 7:30 pm	Cincinnati Genetic Counseling Program 8:00 pm	University of Oklahoma Health Sciences Center 6:45 pm	Wayne State University 8:30 pm		
8:30 PM	Various Ancillary Meetings					
	Genomic Technologies SIG *Room 328*	*Journal of Genetic Counseling* Editorial Board Meeting *Room 327*	URM Networking Event *Room 329*			

Thursday, October 22

7:00 AM – 7:45 AM	CEU **B01** Hereditary Cancer Testing and the Genetic Counselor – Sponsored by Integrated Genetics *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				
7:00 AM – 7:45 AM	NSGC 2016 Board and Committee Leadership Orientation – *Room 330*				
7:00 AM – 7:45 AM	NSGC SIG Leadership Orientation – *Room 329*				
7:00 AM – 7:45 AM	Various SIG and Ancillary Meetings				
	Cardiac SIG *Room 327*	Counseling Women About Pregnancy Termination *Room 306*	Research SIG *Room 326*		
7:00 AM – 8:00 AM	AEC Breakfast – *Spirit of Pittsburgh Ballroom Gallery*				
8:00 AM – 9:00 AM	CEU **B02** Next Generation Thinking: Paths to Evidence-based Practice in Genetic Counseling – *Spirit of Pittsburgh Ballroom*				
9:00 AM – 9:45 AM	CEU **B03** NSGC State of the Society Address – *Spirit of Pittsburgh Ballroom*				
9:45 AM – 10:00 AM	AEC Break – *West Atrium*				
10:00 AM – 11:30 AM	CEU Educational Breakout Sessions				
	B04 Media Training Workshop: Master the Art of Telling the Genetic Counseling Story *Room 315/316*	**B05** Newborn and Fetal Sequencing: Exploring the Landscape before We Leap *Room 301/302/303*	**B06** Practice Guidelines 2.0: Developing High Quality, Clinically Relevant Practice Guidelines *Room 317/318*	**B07** The Role of Genetic Counselors in Cancer Prevention: A Focus on Modifiable Risk Factors *Room 319/320/321* *Supported by Quest Diagnostics*	**B08** Working with Payers to Develop and Apply Genetic Testing Policies *Room 403/404/405* *Supported by Affymetrix, Inc.*
11:30 AM – 3:00 PM	Exhibitor Suite Open and Food and Beverage Concessions Open – *Hall A*				
11:30 AM – 12:45 PM	NSGC Committee Meetings				
	Access and Service Delivery Committee *Room 326*	Education Committee *Room 328*	Membership Committee *Room 330*	Practice Guidelines Committee *Room 327*	Public Policy Committee *Room 326*

11:45 AM – 1:15 PM	CEU **B09** New Technologies: New Paradigms – Sponsored by Baylor Miraca Genetics Laboratories *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				
1:00 PM – 1:30 PM	American Board of Genetic Counseling (ABGC) Business Meeting – *Spirit of Pittsburgh Ballroom*				
1:30 PM – 2:00 PM	Accreditation Council for Genetic Counseling (ACGC) Presentation – *Spirit of Pittsburgh Ballroom*				
2:00 PM – 3:00 PM	CEU **B10** Posters with Authors: Odd Numbered Presentations – Supported by Illumina – *Hall A*				
3:00 PM – 3:15 PM	AEC Break – *West Atrium*				
3:15 PM – 4:45 PM	CEU Educational Breakout Sessions				
	B11 Blind Spots: Genetic Counselors and Conflicts of Interest *Room 403/404/405*	**B12** The Changing Face of Newborn Screening: Expanded Screening for Lysosomal Storage Disorders *Room 301/302/303*	**B13** Theoretical Tools for Psychotherapeutic Genetic Counseling *Room 315/316*	**B14** Thriving vs. Surviving: Strategies for Excelling as a Novice Genetic Counselor *Room 317/318*	**B15** When Worlds Collide: Genetic Counseling and Testing Conundrums in Identifying Cancer Risk for the Prenatal, Pediatric and Cancer Genetic Counselor *Room 319/320/321*
5:00 PM – 6:15 PM	CEU **B16** Dr. Beverly Rollnick Memorial Lecture – *Twitch* Documentary Screening and Discussion with Filmmaker Kristen Powers *Spirit of Pittsburgh Ballroom*				
6:00 PM – 8:00 PM	Exhibitor Suite Open – *Hall A*				
6:15 PM – 7:00 PM	NSGC Leadership Awards – *Spirit of Pittsburgh Ballroom*				
7:00 PM	Various SIG and Ancillary Meetings				
	International SIG *Room 330*	Industry SIG *Room 328*	Neurogenetics SIG *Room 329*	Pediatric and Clinical SIG *Room 327*	
7:00 PM AND ON	Various Program Reunions (See p. 8 for more information and locations)				
	Arcadia University 7:00 pm	California State University Stanislaus 8:00 pm	Case Western Reserve University 7:30 pm	Ichan School of Medicine at Mount Sinai 7:00 pm	Johns Hopkins University/National Human Genome Research Institute 7:30 pm
	Long Island University 7:30 pm	Stanford University 8:00 pm			
	University of California Berkeley 8:00 pm	University of Maryland 8:00 pm	University of Michigan 8:00 pm	University of Minnesota 7:00 pm	University of PIttsburgh 7:00 pm
	University of Wisconsin Madison 7:00 pm				
7:15 PM – 8:45 PM	CEU **B17** Termination of Pregnancy for Indications of Genetic Disorder in Advanced Gestations – Sponsored by Boulder Abortion Clinic *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				

Friday, October 23

7:00 AM – 7:45 AM	CEU **C01** Dissecting the Diagnostic Yield in Clinical Genomic Testing – Sponsored by Personalis, Inc. *Allegheny Grand Ballroom – Westin Hotel, Third Floor*			
7:00 AM – 7:45 AM	Various SIG and Ancillary Meetings			
	ACGC Site Visitor Training *Room 329*	Cardiovascular Genetics SIG *Room 327*	CF and *CFTR* Spectrum SIG *Room 328*	Personalized Medicine SIG *Room 326*
7:00 AM – 7:45 AM	Past Board Member Breakfast – *Room 330*			
7:00 AM – 8:00 AM	AEC Breakfast – *Spirit of Pittsburgh Ballroom Gallery*			
8:00 AM – 9:30 AM	CEU Concurrent Papers			
	C02 Access and Service Delivery I *Room 315/316*	**C03** Clinical Care: Cancer *Room 319/320/321*	**C04** Genetic/Genomic Testing *Room 301/302/303*	**C05** Professional Issues and Education *Room 317/318*
9:30 AM – 9:45 AM	AEC Break – *West Atrium*			
9:45 AM – 10:15 AM	CEU **C06** Sharing Data as a Means to Improve Patient Care: The Emerging Role of Genetic Counselors in Variant Interpretation *Spirit of Pittsburgh Ballroom*			
10:15 AM – 10:45 AM	CEU **C07** Behind the Scenes: Development and Scoring of the ABGC Certification Exam – *Spirit of Pittsburgh Ballroom*			
10:45 AM – 11:30 AM	CEU **C08** Professional Issues Panel: The Genetic Counseling Workforce - Present and Future – *Spirit of Pittsburgh Ballroom*			
11:30 AM – 4:30 PM	Exhibitor Suite Open and Food and Beverage Concessions Open – *Hall A*			
11:30 AM – 1:00 PM	NSGC SIG Meetings			
	ART/Infertility SIG *Room 330*	Cancer SIG *Room 326*	Metabolism/LSD SIG *Room 328*	Psychiatric SIG *Room 329*	Student/New Member SIG *Room 327*
11:45 AM – 1:15 PM	CEU **C09** Diagnostic Testing, Evolving Phenotypes and Impact on Patient Care: A GeneDx Update on XomeDxXpress and Inherited Cancer Testing – Sponsored by GeneDx – *Allegheny Grand Ballroom – Westin Hotel, Third Floor*			
12:00PM – 1:00 PM	AEC Subcommittee Meeting – *Room 306*			

Schedule-At-A-Glance *(continued)*

Friday, October 23 (Continued)

1:15 PM – 2:15 PM	CEU **C10** Posters with Authors: Even Numbered Presentations – Supported by Illumina – *Hall A*				
2:15 PM – 3:00 PM	NSGC Business Meeting – *Spirit of Pittsburgh Ballroom*				
3:00 PM – 3:30 PM	CEU **C11** Audrey Heimler Special Project Award – *Spirit of Pittsburgh Ballroom*				
3:30 PM – 4:15 PM	CEU **C12** Jane Engelberg Memorial Fellowship – *Spirit of Pittsburgh Ballroom*				
4:15 PM – 4:30 PM	Passport to Prizes Drawing – *Hall A*				
4:30 PM – 4:45 PM	AEC Break – *West Atrium*				
4:45 PM – 6:15 PM	CEU Educational Breakout Sessions				
	C13 DTC Ancestry Testing: Gateway to Genetics Education of the Lay Public and an Emerging Professional Role for Genetic Counselors *Room 317/318*	**C14** Mosaicism Revealed: How Technological Advances are Increasing Our Understanding of Mosaicism in Genetic Disorders *Room 403/404/405*	**C15** Next Generation Sequencing: Challenges and Strategies in Testing Patients with Circulating Hematopoietic Malignancies *Room 319/320/321*	**C16** Roe v. Wade, Kennedy-Brownback and Beyond: The Legal Landscape of Reproductive Rights and Prenatal Testing *Room 315/316*	**C17** Will the Real Testing Cost Please Stand Up? *Room 301/302/303*
6:15 PM – 6:30 PM	AEC Break – *West Atrium*				
6:30 PM – 7:30 PM	CEU **C18** Shift Happens: Penetrance, Pedigrees and New Perspectives on Developmental Brain Dysfunction – *Spirit of Pittsburgh Ballroom*				
7:00 PM AND ON	Various Program Reunions (See p. 8 for more information and locations)				
	Brandeis University 9:00 pm	Northwestern University 8:00 pm	Sarah Lawrence College 7:00 pm	University of Alabama Birmingham 7:30 pm	
7:30 PM – 8:30 PM	Diversity SIG Interest Meeting – *Room 328*				
7:30 PM – 9:00 PM	CEU **C19** Genetic Counseling Considerations Associated with Next-generation Sequencing across the Reproductive Health Continuum Sponsored by Illumina – *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				

Saturday, October 24

7:00 AM – 7:45 AM	CEU **D01** The Next Step in Noninvasive Prenatal Testing Innovation: Genome-wide NIPT with cfDNA – Sponsored by Sequenom Laboratories *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				
7:00 AM – 8:00 AM	AEC Breakfast – *Spirit of Pittsburgh Ballroom Gallery*				
8:00 AM – 9:30 AM	CEU Educational Breakout Sessions				
	D02 At the Heart of the Pregnancy: What Prenatal and Cardiovascular Genetic Counselors Need to Know about Maternal Heart Disease *Room 319/320/321*	**D03** Cancer Panels From Research to Better Patient Care: Challenges and Current Practices *Room 403/404/405*	**D04** Mind the Gap: Bridging the Health Literacy Divide *Room 315/316*	**D05** Moving Genetics from the Clinic to the Community: Cancer as a Model of Population Screening *Room 301/302/303*	**D06** Where Do These Results Come from and Why Do I Care? Bioinformatics for Genetic Counselors *Room 317/318* *Supported by Asurgen*
9:30 AM – 9:45 AM	AEC Break – *West Atrium*				
9:45 AM – 10:45 AM	CEU **D07** Late-Breaking Plenary Session: Hope, Hype and Horror Movies: Contemplating Human Germline Modification *Spirit of Pittsburgh Ballroom*				
10:45 AM – 11:15 AM	Incoming Presidential Address – *Spirit of Pittsburgh Ballroom*				
11:30 AM – 3:00 PM	Food and Beverage Concessions Open – *West Atrium*				
11:30 AM – 12:45 PM	Various Ancillary Meetings				
	Education SIG *Room 328*		Lynch Syndrome Screening Network *Room 327*		
11:30 AM – 1:00 PM	CEU **D08** Finding Just Right: Balancing Provider and Payer Goals for Hereditary Genetic Testing – Sponsored by Invitae *Allegheny Grand Ballroom – Westin Hotel, Third Floor*				
1:00 PM – 1:45 PM	CEU **D09** The Match of the Decade: Gene Panels versus Whole Genomes/Exomes – *Spirit of Pittsburgh Ballroom*				
2:00 PM – 3:30 PM	CEU Concurrent Papers				
	D10 Access and Service Delivery II *Room 315/316*	**D11** Clinical Care: Counseling and Psychosocial Perspectives *Room 317/318*	**D12** Clinical Care: Pediatrics & Adults *Room 301/302/303*	**D13** Clinical Care: Pre/Perinatal *Room 319/320/321*	

affymetrix
Biology for a better world

What do you recommend for families struggling with the diagnostic odyssey?

Visit booth #402

Embrace the *new standard* in chromosomal microarray analysis (CMA) testing

CytoScan® Dx Assay is the **first and only FDA-cleared whole-genome blood test** to aid in the diagnosis of developmental delay and intellectual disability. Through rigorous clinical trials, CytoScan Dx Assay demonstrated exceptional performance for the detection of chromosomal aberrations, providing clear and confident results.

Patients previously denied CMA testing may see improved access to testing and insurance coverage because CytoScan Dx Assay is FDA-cleared, not an investigational tool.

CytoScan® Dx Assay

Unrivaled performance. **Results that matter.**

IVD For *In Vitro* Diagnostic Use CE

For best patient care, visit
www.affymetrix.com/cma

Intended Use and assay limitations can be found at www.affymetrix.com/cma

Reunion Information

Wednesday, October 21

6:45 PM	**University of Oklahoma Health Sciences Center**	Olive or Twist 140 6th Street Pittsburgh 412·255·0525
7:30 PM	**Canadian Programs**	Sonoma Grille 947 Penn Avenue, Pittsburgh 412·697·1336
8:00 PM	**Cincinnati Genetic Counseling Program**	Olive or Twist 140 6th Street Pittsburgh 412·255·0525
8:30 PM	**Wayne State University**	Sharp Edge Bistro 922 Penn Avenue, Pittsburgh 412·338·2437

Thursday, October 22

7:00 PM	**University of Wisconsin–Madison**	To Be Determined
7:00 PM	**Arcadia University**	To Be Determined
7:00 PM	**Icahn School of Medicine at Mount Sinai**	Six Penn Kitchen 146 6th Street, Pittsburgh 412·566·7366
07:00 PM	**University of Minnesota**	David L. Lawrence Convention Center Room 326 1000 Ft. Duquesne Blvd 412·565·6000
07:00 PM	**University of Pittsburgh**	Eddie Merlot's 444 Liberty Avenue Suite 100, Pittsburgh 412·235·7676
7:30PM	**Case Western Reserve University**	Tonic Bar and Grill 971 Liberty Avenue, Pittsburgh 412·456·0460
7:30 PM	**Long Island University**	Tonic Bar and Grill 971 Liberty Avenue, Pittsburgh 412·456·0460
7:30 PM	**Johns Hopkins University/National Human Genome Research Institute**	To Be Determined
8:00 PM	**University of Maryland**	Alihan's Mediterranean Cuisine 124 6th Street, Pittsburgh 412·888·0629

Thursday, October 22 *(continued)*

8:00 PM	**University of Michigan**	Olive or Twist 140 6th Street, Pittsburgh 412·255·0525
8:00 PM	**Stanford University Genetic Counseling Program**	Bill's Bar & Burger 1000 Penn Avenue, Pittsburgh 412·567·2300
8:00 PM	**California State University Stanislaus**	To Be Determined
8:00 PM	**University of California Berkeley**	To Be Determined

Friday, October 23

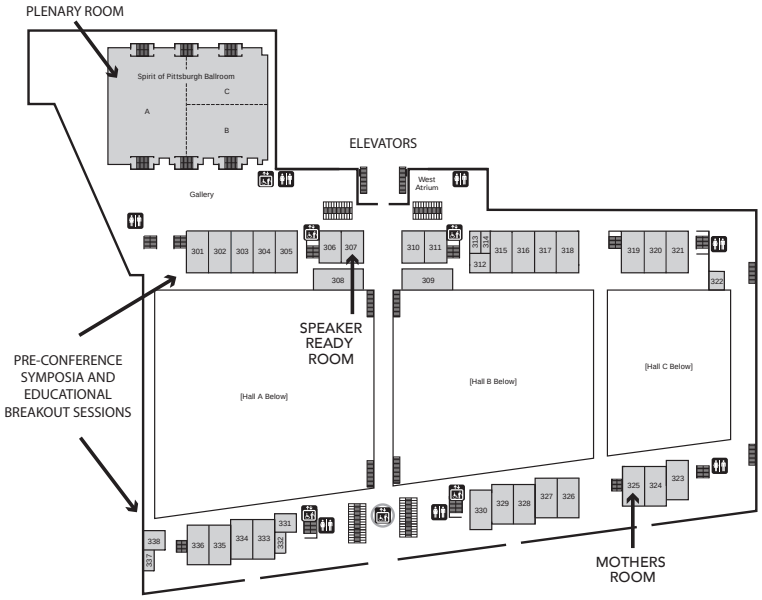
7:00 PM	**Sarah Lawrence College**	Church Brew Works 3525 Liberty Avenue, Pittsburgh 412·688·8200
7:30 PM	**University of Alabama at Birmingham**	Sonoma Grille 947 Penn Avenue, Pittsburgh 412·697·1336
8:00 PM	**Northwestern University**	The Livermore 5972 Baum Boulevard, Pittsburgh 412·471·1900
9:00 PM	**Brandeis University**	Tonic Bar & Grill 971 Liberty Avenue, Pittsburgh 412·456·0460

Please visit the AEC Message Center board or view the NSGC AEC mobile app for updated reunion information.

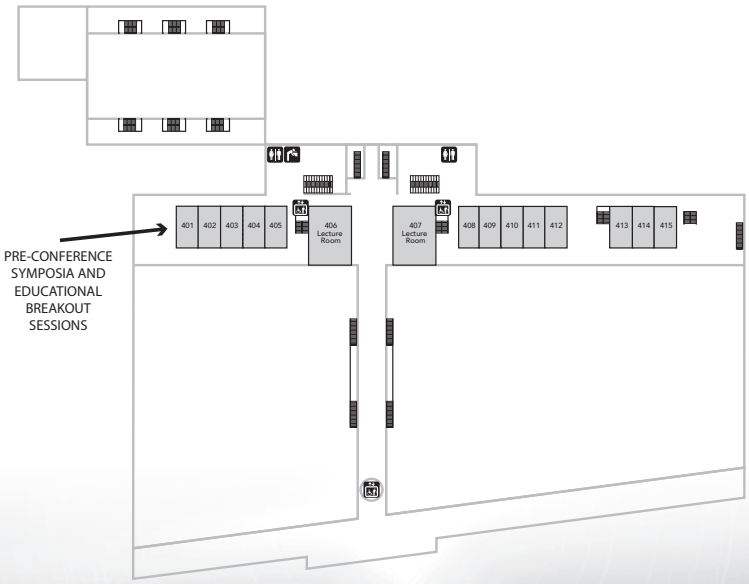
David L. Lawrence Convention Center Floor Plan

Second Floor

Third Floor



Fourth Floor



Session Speakers and Objectives

Wednesday
October 21

Pre-conference Symposia
8:00 am – 2:00 pm

A01 Beyond the Usual Suspects: Updates on Counseling and Management Strategies for Rare Inherited Cancer Predisposition Syndromes

5.00 Contact Hours

1: Gayun Chan-Smutko, MS, CGC, Massachusetts General Hospital; 2: Laura S. Schmidt, PhD, Leidos Biomedical Research, Inc., Frederick National Laboratories; 3: Michael Hall, MD, Fox Chase Cancer Center; 4: Kory Jasperson, MS, CGC, Huntsman Cancer Institute; 5: Brandie Heald Leach, MS, LGC, Cleveland Clinic; 6: Victoria Raymond, MS, CGC, Illumina, Inc.; 7: Tobias Else, MD, University of Michigan

- Identify testing and management strategies for *BAP1*, *MITF*, *PTEN* and other inherited renal cell carcinoma conditions.
- Describe the phenotype and potential management strategies for carriers of mutations in *POLE*, *POLD1*, *SCG5/GREM1* and monoallelic *MUTYH*.
- Outline risk assessment and management strategies for endocrine tumor predisposition syndromes.

Submitted and Sponsored by: NSGC Cancer SIG

A02 Diagnostic Exome Sequencing as the Standard of Care

5.00 Contact Hours

1: David Goldstein, PhD, Columbia University; 2: Kelly Farwell Hagman, MS, CGC, Ambry Genetics; 3: Holly LaDuca, MS, CGC, Ambry Genetics; 4: Elizabeth Chao, MD, University of California, Irvine; 5: Christine Eng, MD, Baylor College of Medicine; 6: Joshua Deignan, PhD, FACMG, University of California, Los Angeles; 7: Cheryl Scacheri, MS, CGC, GeneDx; 8: Sha Tang, PhD, FACMG, Ambry Genetics; 9: Emily Farrow, PhD, CGC, Children's Mercy Hospital, Center for Pediatric Genomic Medicine; 10: Julia Wynn, MS, New York Presbyterian Columbia; 11: Julie Cohen, ScM, CGC, Kennedy Krieger Institute; 12: Layla Shahmirzadi, MS, CGC, LGC, Ambry Genetics; 13: Kelly E. Ormond, MS, CGC, LGC, Stanford University; 14: Leslie Biesecker, MD, FAAP, FACMG, National Human Genome Research Institute

- Outline the current state of diagnostic exome sequencing (DES) from technological, research, clinical and genetic counseling perspectives.
- Recall data regarding the clinical use of DES, such as detection rates, and how these data contribute to clinical genetics diagnosis and management of patients.
- Recognize that the high diagnostic rate of DES, the implications for patient care after a diagnosis and the clear cost savings are making DES well suited to become the standard of care in diagnostic medicine.
- Identify current perspectives, policies and recommendations surrounding secondary findings.

A03 Feeling Overwhelmed? Advocating for Resources in the Current Healthcare Environment

5.00 Contact Hours

1: Dawn Allain, MS, LGC, The Ohio State University Wexner Medical Center; 2: Kimberly Banks, MS, CGC, MBA, Guardant Health; 3: Michelle Jackson, MS, CGC, Ambry Genetics; 4: Jodie Vento, MGC, LCGC, Children's Hospital of Pittsburgh of UPMC; 5: Linda Robinson, MS, CGC, University of Texas Southwestern; 6: Kathy Noorbaksh, BSN, CPC, CPC-H, UPMC Mercy and Magee Womens Hospital; 7: Nicholas J. Barcellona, MBA, Children's Hospital of Pittsburgh

- Define best practices for negotiating for institutional resources with both clinicians and administrators.
- Compare and contrast metrics used to evaluate genetic counselor services in the current healthcare environment.
- Recognize the impact that billing models, revenue, credentialing and licensure have on institutional resources for genetic counseling services.
- Summarize available resources that can support your efforts to garner more institutional support, including lessons learned from other genetic counselors.

Submitted by: NSGC Access and Service Delivery Committee

A04 Qualitative Research 101: A Crash-course for Genetic Counselors

5.00 Contact Hours

1: Robin Grubs, MS, PhD, LCGC, University of Pittsburgh; 2: Melanie Myers, PhD, MS, LGC, Cincinnati Children's Hospital Medical Center and University; 3: Pat McCarthy Veach, PhD, LP, University of Minnesota; 4: Bonnie LeRoy, MS, CGC, University of Minnesota; 5: Katie L. Berrier, MS, CGC, Duke University Medical Center; 6: Catriona Hippman, MSc, CGC, BC Mental Health and Addictions Research Institute; 7: Carrie Guy, MS, LCGC, Quest Diagnostics; 8: Martha Terry, PhD, University of Pittsburgh; 9: Amy Reed, PhD, Rowan University

- Describe the value and principles of qualitative research.
- Recognize different types of qualitative methodologies, ethical considerations and methods to support rigor.
- Develop analytical and publication skills through hands-on experience.
- Review introductory knowledge and skills to support the inclusion of qualitative methodologies in research endeavors.

Submitted by: NSGC Research SIG

A05 Sequence Variant Interpretation for the Clinical Genetic Counselor

5.00 Contact Hours

1: Colleen Caleshu, ScM, LCGC, Stanford Center for Inherited Cardiovascular Disease; 2: Heidi Rehm, PhD, FACMG, Laboratory for Molecular Medicine, PCPGM; 3: Megan Grove, MS, LCGC, Stanford University; 4: Sarah Garcia, PhD, MS, CGC, Personalis, Inc.; 5: Julie Culver, MS, LCGC, USC Norris Comprehensive Cancer Center; 6: Julie Cohen, ScM, CGC, Kennedy Krieger Institute

- Illustrate why genetic counselors should be aware of variant interpretation principles and how these principles can inform their clinical practice.
- Describe general strategies for interpretation of evidence of underlying gene-disease associations and variant-disease associations.
- Name specific variant interpretation considerations for cancer, cardiology and neurology.

Submitted by: NSGC Cardiovascular SIG and NSGC Personalized Medicine SIG

A06 A Womb with a View: A Fetal Surgery Primer for Genetic Counselors

5.00 Contact Hours

1: Sara Reichert, MS, MPH, LCGC, Children's Hospitals and Clinics of Minnesota; 2: Stefanie Kasperski, MS, LCGC, The Center for Fetal Diagnosis and Treatment at The Children's Hospital of Philadelphia; 3: Martha Dudek, MS, LCGC, Vanderbilt University; 4: Louise Wilkens-Haug, MD, PhD, Brigham and Women's Hospital, Harvard University; 5: Anthony Johnson, DO, UT Health-University of Texas Medical School at Houston; 6: Julie Moldenhauer, MD, FACOG, FACMG, Children's Hospital of Philadelphia; 7: Emily Partack, MS, LCGC, Cincinnati Children's Hospital; 8: Rachael Bradshaw, MS, CGC, St. Louis University School of Medicine; 9: Bethany Tucker, MS, CGC, MBA, Colorado Institute for Maternal & Fetal Health; 10: Holly Hedrick, MD, Children's Hospital of Philadelphia; 11: Jill Slamon, MAT, MS, LGC, Vanderbilt University; 12: Blair Stevens, MS, CGC, UT Health-University of Texas Medical School at Houston; 13: Rachel Nusbaum, MS, CGC, GeneDx; 14: Stephanie Rodriguez; 15: Billie Lianoglou, ScM, LCGC, University of California, San Francisco Fetal Treatment Center

- Outline the history of fetal intervention and surgery.
- Describe available resources for genetic counselors seeking services of fetal therapy centers.
- Outline congenital anomalies amenable to open fetal surgery.
- Discuss ethical scenarios regarding genetic and psychosocial issues that may arise when screening women as fetal surgery candidates.

Submitted by: NSGC Prenatal SIG

Janus Series
3:45 pm – 5:15 pm

A07 Advances in the Understanding of Paragangliomas and Pheochromocytomas: Underappreciated and Highly Genetic

0.50 Contact Hour

1: Shana L Merrill, MS, LCGC, Hospital of The University of Pennsylvania

- Describe the pathophysiology of paragangliomas and pheochromocytomas (PGL/PHEOs) as it applies directly to various known tumor predisposition genes and syndromes.
- Understand recent advances in clinical testing options and management recommendations for patients with PGL/PHEO.
- Illustrate the evolution of our knowledge of PGL/PHEO genetics as it applies more broadly to our understanding of rare tumor genetics.
- Discuss how thorough interpretation and application of genetic testing results can positively impact patient care.

A08 Preimplantation Genetic Testing: Ushering in a New Era

0.50 Contact Hour

1: Emily Burkett Mounts, MS, CGC, Oregon Reproductive Medicine

- Describe the evolution of preimplantation genetic testing (PGS/PGD) and identify the populations who may benefit from these technologies.
- Recognize the evolving roles of genetic counselors in identifying candidates for PGS/PGD and opportunities for applying their expertise to pre- and post-PGD genetic counseling services.
- Summarize genetic counseling issues and ethical dilemmas that accompany the rapidly-increasing ability to identify genetic disorders and traits in the human embryo.

Submitted by: NSGC Assisted Reproductive Technologies/Infertility SIG

A09 *DICER1* Syndrome: A Newly Recognized Cancer Predisposition Syndrome

0.50 Contact Hour

1: Joyce Turner, MS, CGC, Children's National Medical Center

- Recognize the conditions associated with the *DICER1* syndrome and their approximate ages of occurrence.
- Review the different types of *DICER1* analyses available to families and discuss the implications of their test results.
- Describe the current and future *DICER1* syndrome research efforts.

Best Abstract Awards
5:45 pm – 6:15 pm

Beth Fine Kaplan Best Student Abstract Award

A10 Assessing Current Practices in Prenatal Genetic Counseling Regarding a Prenatal Diagnosis of Down Syndrome Phase II: What Does Client-centered Counseling Look Like in Practice?

0.25 Contact Hour

1: Alex Marie Yraqui, MS, University of Michigan

- Summarize reasons genetic counselors decide to give less than comprehensive information during a prenatal diagnosis of Down syndrome counseling session.
- Identify instances in which genetic counselors perceive educational and psychosocial goals to be in opposition for a prenatal diagnosis of Down syndrome counseling session.

Best Full Member Abstract Award

A11 Assessment of Complexity among Cancer, Cardiovascular, General Pediatric/ Adult and Prenatal Genetic Counseling at a Single Institute: A Tool to Improve Efficiencies and Help Guide Patient Volumes

0.25 Contact Hour

1: Allison Schreiber, MS, CGC, Cleveland Clinic

- Recognize differences in activities completed and time spent between different specialties of genetic counselors.
- Identify areas in your own institution where these data could be applied.

Thursday
October 22

Sponsored Breakfast Session
7:00 am – 7:45 am

B01 Hereditary Cancer Testing and the Genetic Counselor

0.50 Contact Hour

1: Alecia Willis, PhD, FACMG, Laboratory Corporation of America; 2: Kara Bui, MS, CGC, Greenville Hospital System Cancer Center

- Discover the science behind hereditary cancer testing, gene selection and the impact of a variant of uncertain significance (VUS) on test results.
- Explain the purpose of hereditary cancer testing, the importance of testing based on personal and family medical history, and the distinctions between the possible results.

Sponsored by: Integrated Genetics

Plenary Session
8:00 am – 9:00 am

B02 Next Generation Thinking: Paths to Evidence-based Practice in Genetic Counseling

1.00 Contact Hour

1: Barbara B. Biesecker, PhD, MS, National Human Genome Research Institute; 2: Heather Zierhut, PhD, MS, CGC, University of Minnesota; 3: Craig A. Umscheid, MD, MS, University of Pennsylvania; 4: Gillian W. Hooker, PhD, LCGC, NextGxDx

- Evaluate genetic counseling research studies conducted to investigate the effectiveness and clinical utility of genetic counseling and genetic counseling interventions.
- Describe stakeholder opinions regarding priorities for research in genetic counseling.
- Define important attributes of research questions designed to inform clinical practice.

Submitted by: NSGC Practice Guidelines Committee, NSGC Access and Service Delivery Committee and NSGC Research SIG

9:00 am – 9:45 am

B03 NSGC State of the Society Address

0.75 Contact Hour

1: Joy Larsen Haidle, MS, CGC, NSGC President

- Describe the activities of NSGC over the past year as related to the advancement of the profession of genetic counseling.
- Assess NSGC's advocacy efforts over the course of 2015.
- Identify opportunities for professional development through participation in NSGC volunteer opportunities.

Educational Breakout Sessions
10:00 am – 11:30 am

B04 Media Training Workshop: Master the Art of Telling the Genetic Counseling Story

1.50 Contact Hours

1: Wendi Koziol, Public Communications, Inc.; 2: Veronica Jackson, Public Communications, Inc.

- Review media interview best practices and practical tips.
- Hone media interview skills.
- Practice advocating on behalf of the profession.

B05 Newborn and Fetal Sequencing: Exploring the Landscape before We Leap

1.50 Contact Hours

1: Julianne M. O'Daniel, MS, CGC, University of North Carolina at Chapel Hill; 2: Flavia Facio, MS, CGC, Johns Hopkins Bloomberg School of Public Health; 3: Megan A. Lewis, PhD, RTI International, Center for Communication Science; 4: Emily Hardisty, MS, CGC, University of North Carolina

- Appreciate the technical strengths and limitations of applying genome sequencing as a diagnostic or screening test in newborn and fetal populations.
- Recognize clinical and ethical challenges that arise with genome/exome sequencing, including the selection of genetic information that should be returned and the role of parental choice to learn expanded categories of information.
- Gain insight regarding the motivations and expectations of parents faced with the decision to enroll their anomalous fetus or presumed healthy newborn in a genome sequencing study.
- Explore attributes that parents consider when making a decision about genome sequencing for their infants.

B06 Practice Guidelines 2.0: Developing High-Quality, Clinically Relevant Practice Guidelines

1.50 Contact Hours

1: Deepti Babu, MS, CGC, Ambry Genetics; 2: Christina Palmer, PhD, CGC, University of California, Los Angeles; 3: Craig A. Umscheid, MD, MS, University of Pennsylvania; 4: Ravi Sharaf, MD, MS, North Shore-LIJ Health System, Hofstra University School of Medicine; 5: Gillian W. Hooker, PhD, LCGC, NextGxDx

- Describe the process of creating a practice guideline.
- Discuss the types of evidence that can support practice guidelines.
- Identify the components of a high-quality clinical practice guideline.

Submitted by: NSGC Practice Guideline Committee

Session Speakers and Objectives *(continued)*

Thursday *(continued)*

B07 The Role of Genetic Counselors in Cancer Prevention: A Focus on Modifiable Risk Factors

1.50 Contact Hours

1: Deborah Lindner, MD, FACOG, FACPh, Bright Pink; 2: Martha Slattery, PhD, MPH, University of Utah; 3: Scott Walters, PhD, University of North Texas Health Sciences Center

- Summarize the relevant literature related to modifiable risk factors for breast, colorectal and gynecologic cancers.
- Review the current state of breast, colorectal and gynecologic cancer detection and prevention.
- Describe how motivational interviewing can be incorporated into genetic counseling sessions to help patients make changes with regard to modifiable risk factors.

Submitted and Sponsored by: NSGC Cancer SIG
Supported by: Unrestricted Educational Grant from Quest Diagnostics

B08 Working with Payers to Develop and Apply Genetic Testing Policies

1.50 Contact Hours

1: Shannon DeWall, MS, CGC, JD, CareCore National/Medsolutions; 2: Tracy Bensend, MS, CGC, Humana, Inc.; 3: Bill Campbell, MS, CGC, Kaiser Permanente

- Recognize how to assess the true cost of testing and how molecular and genetic testing contributes to the overall cost of healthcare in this country.
- Discuss how genetic counselors can benefit the healthcare system by being involved in the development and implementation of genetic testing policies.
- Review your own genetic test ordering habits and consider how they are contributing to saving healthcare dollars for patients and the healthcare system as a whole.

Submitted by: NSGC Industry SIG
Supported by: Unrestricted Educational Grant from Affymetrix, Inc.

Sponsored Lunch Session
11:45 am – 1:15 pm

B09 New Technologies: New Paradigms

1.00 Contact Hour

1: Sarah Elsea, PhD, Baylor College of Medicine; 2: Yunru (Kathy) Shao, MMSc, CGC, Baylor College of Medicine; 3: Timikia Vaughn, MS, CGC, Baylor Miraca Genetics Laboratories

- Describe how functional pathway studies assist in determination of pathogenicity of variants of uncertain significance.
- Identify when functional pathway studies are appropriate for a specific clinical patient.
- Assess when analysis outside the American College of Medical Genetics (ACMG) guidelines for expanded carrier screening is appropriate for a specific clinical patient.

Sponsored by: Baylor Miraca Genetics Laboratories

Educational Breakout Sessions
3:15 pm – 4:45 pm

B11 Blind Spots: Genetic Counselors and Conflicts of Interest

1.50 Contact Hours

1: Michelle Strecker, MS, LCGC, CombiMatrix; 2: Robert Resta, MS, CGC, Hereditary Cancer Clinic/Swedish Cancer Institute; 3: Kate Schuab, Advisen; 4: Katie Stoll, MS, LGC, Providence Health & Services/The Genetic Support Foundation; 5: Catriona Hippman, MSc, CGC, BC Mental Health and Addictions Research Institute

- Recognize conflict of interest as applied to different genetic counseling contexts.
- Discuss the impact of business interests and motivators on genetic healthcare.
- Identify strategies for management of conflict of interest and their application in different genetic counseling contexts.

B12 The Changing Face of Newborn Screening: Expanded Screening for Lysosomal Storage Disorders

1.50 Contact Hours

1: Linda Manwaring, MS, CGC, Washington University School of Medicine; 2: Andrea Atherton, MS, CGC, Children's Mercy Hospitals and Clinics; 3: Dawn Peck, MS, CGC, University of Missouri, Columbia; 4: Joshua Petrikin, MD, University of Missouri, Kansas City School of Medicine; 5: Kari Jacobsen, MA; 6: Catherine Johnson; 7: Lindsay Gibbs

- Identify the benefits, limitations and struggles associated with expanded newborn screening for lysosomal storage disorders based on the experiences in Missouri over two years.
- Evaluate the merits of genomic sequencing as part of care for the neonatal intensive care population and its future role in newborn screening.
- Compare the different experiences of families who had a child diagnosed with a lysosomal storage disease through Missouri's newborn screening program.

Submitted by: NSGC Metabolism/Lysosomal Storage Diseases SIG and NSGC Public Health SIG
Sponosred by: NSGC Metabolism/Lysosomal Storage Diseases SIG

B13 Theoretical Tools for Psychotherapeutic Genetic Counseling

1.50 Contact Hours

1: Jehannine Austin, PhD, CGC, University of British Columbia; 2: Barbara Bowles Biesecker, MS, CGC, PhD, National Human Genome Research Institute; 3: Colleen Caleshu, ScM, LCGC, Stanford Center for Inherited Cardiovascular Disease

- Identify positive outcomes associated with psychotherapeutic genetic counseling.
- Describe cognitive behavioral theories and employ specific interventions that are appropriate for genetic counseling client needs.
- Apply the findings of decision-making science to genetic counseling regarding genetic testing decisions.

B14 Thriving vs. Surviving: Strategies for Excelling as a Novice Genetic Counselor

1.50 Contact Hours

1: Rebecca K. Tryon, MS, CGC, University of Minnesota Health; 2: Pat McCarthy Veach, PhD, LP, University of Minnesota; 3: Bonnie S. LeRoy, MS, CGC, University of Minnesota; 4: Craig R. Adamski, MS, CGC, Children's Hospital of Wisconsin; 5: Sara Velden, MS, LCGC, ARUP Laboratories; 6: Kate Foreman, MS, CGC, University of North Carolina at Chapel Hill

- Summarize relevant literature on professional development for novice genetic counselors.
- Recognize common challenges novice genetic counselors face in daily practice.
- Formulate strategies for addressing practice challenges.

B15 When Worlds Collide: Genetic Counseling and Testing Conundrums in Identifying Cancer Risk for the Prenatal, Pediatric and Cancer Genetic Counselor

1.50 Contact Hours

1: Kara Maxwell, MD, PhD, University of Pennsylvania; 2: Holly Dubbs, MS, LCGC, Chidren's Hospital of Philadelphia; 3: Kaylene Ready, MS, CGC, Counsyl

- Assess current strategies and guidelines in carrier screening/testing for genes associated with cancer susceptibility.
- Describe current knowledge regarding genes with increased cancer risk in the carrier state and their associated pediatric syndromes in the homozygous state.
- Contrast possible clinical management for those with mono or biallelic mutations for these conditions when identified in the pediatric, adult cancer or prenatal clinic.
- Present challenging clinical scenarios including virtual audience input about possible courses of action, then discussion by the multidisciplinary panel representing prenatal, pediatric and adult cancer disciplines.

Dr. Beverly Rollnick Memorial Lecture
5:00 pm – 6:15 pm

B16 *Twitch* Documentary Screening and Discussion with Kristen Powers

1.25 Contact Hours

1: Kristen Powers, Filmmaker, Twitch

- Describe the experience of patients undergoing genetic testing or the decision making process to test.
- Examine Huntington's disease (HD) and the stigma associated with it.
- Recognize the role of children in HD families not only as individuals at-risk, but as under-recognized caregivers in need of stronger age-appropriate support structures.

Sponsored by: Dr. Beverly Rollnick Memorial Fund

Sponsored Evening Session
7:15 pm – 8:45 pm

B17 Termination of Pregnancy for Indications of Genetic Disorder in Advanced Gestations

1.00 Contact Hour

1. Warren M. Hern, MD, MPH, PhD, Boulder Abortion Clinic

- Describe the relevance of these services to genetic counseling.
- Identify the purpose, basic principles and components of clinical practice including grief support.
- Outline the basic operative procedures and clinical results of this care.

Sponsored by: Boulder Abortion Clinic

Friday
October 23

Sponsored Breakfast Session
7:00 am – 7:45 am

C01 Dissecting the Diagnostic Yield in Clinical Genomic Testing

0.50 Contact Hour

1. Sarah Garcia, PhD, MS, CGC, Personalis, Inc.; 2: Gemma Chandratillake, MPhil, PhD, MS, LCGC, Personalis, Inc.

- Describe how an exome sequencing test can be augmented to improve accuracy and diagnostic yield.
- Describe challenges in the analysis and interpretation of next-generation sequencing (NGS) data.
- Outline the decision-making process for using panels vs. standard exome vs. augmented exome vs. whole genome for testing of suspected genetic conditions.

Sponsored by: Personalis, Inc.

Plenary Sessions
9:45 am – 10:15 am

C06 Sharing Data as a Means to Improve Patient Care: The Emerging Role of Genetic Counselors in Variant Interpretation

0.50 Contact Hour

1: Brianne Kirkpatrick, MS, LGC, Geisinger Health System; 2: Meredith Weaver, PhD, ScM, CGC, American College of Medical Genetics and Genomics; 3: Martha Thomas, MS, CGC, University of Virginia Health System

- Review the NSGC position statement on data sharing and highlight and clarify the common areas for misunderstanding.
- Discuss the relationship between genotypic and phenotypic data sharing and variant interpretation, using case studies to relate these to actual clinical practice.
- Describe various national and international efforts focused on addressing the need to safely share, standardize, store, update and integrate genomic information into clinical care.
- Describe the importance of genetic counselors participating in data sharing efforts.

10:15 am – 10:45 am

C07 Behind the Scenes: Development and Scoring of the ABGC Certification Exam

0.50 Contact Hour

1: Daniel Breidenbach, PhD, Applied Measurement Professionals, Inc.

- Outline the industry standards for professional certification examination development.
- Describe the steps in the development of the ABGC examination.
- Discuss how the passing score is determined and why we are now able to offer instant scoring.
- Cite the factors that impact differences in passing scores from exam to exam and between professions.

10:45 am – 11:30 am

C08 Professional Issues Panel: The Genetic Counseling Workforce - Present and Future

0.75 Contact Hour

1: Robin L. Bennett, MS, CGC, DSc Hon, University of Washington Medical Center; 2: Susan Hahn, MS, CGC, Quest Diagnostics; 3: Jennifer Hoskovec, MS, CGC, University of Texas Medical School at Houston; 4: John Richardson, National Society of Genetic Counselors; 5: Cathy Wicklund, MS, CGC, Northwestern University Feinberg School of Medicine

- Review current initiatives within the American Board of Genetic Counseling (ABGC), the Accreditation Council for Genetic Counseling (ACGC), the Association of Genetic Counseling Program Directors (AGCPD) and NSGC that are focused on expanding and increasing access to the genetic counselor workforce.
- Outline strategies the workforce working group is pursuing to support expansion of the genetic counselor workforce to meet the future demand for genetic services.
- Describe the relationship of workforce issues to other professional issues facing the genetic counseling profession.

Sponsored Lunch Session
11:45 am – 1:15 pm

C09 Diagnostic Testing, Evolving Phenotypes and Impact on Patient Care: A GeneDx Update on XomeDxXpress and Inherited Cancer Testing

1.00 Contact Hour

1: Sara Knapke, MS, CGC, GeneDx; 2: Audra Bettinelli, MS, CGC, GeneDx; 3: Stephanie DeWard, MS, CGC, GeneDx

- Describe the inherited cancer (IC) and rapid turn-around whole exome sequencing (XomeDxXpress) testing offerings provided by GeneDx and discuss testing strategies.
- Examine the clinical utility, genetic counseling and experiences of families considering IC gene panels and XomeDxXpress.
- Review case examples in which IC panel testing and XomeDxXpress aided in defining a patient's diagnosis and clinical management.

Sponsored by: GeneDx

Plenary Sessions
3:00 pm – 3:30 pm

C11 Audrey Heimler Special Project Award Presentation

0.50 Contact Hour

1: Kara Anstett, MS, CGC, 2014 Audrey Heimler Special Project Awardee, NYU Langone Medical Center; 2: Sharon Chen, MS, 2014 Audrey Heimler Special Project Awardee, North Shore LIJ Health Systems; 3: Sara M. Pirzadeh-Miller, MS, CGC, 2014 Audrey Heimler Special Project Awardee, Moncrief Cancer Institute/UT Southwestern Medical Center

- Review the history of the Audrey Heimler Special Project Award (AHSPA).
- Discuss the progress of the 2014 AHSPA Awardee project *Development of a Website to Facilitate the Recruitment of African Americans and Latinos into the field of Genetic Counseling.*
- Discuss the progress of the 2014 AHSPA Awardee project *Genetic Counseling Assistants: An Integral Piece of the Evolving Genetic Counseling Service Delivery Model.*

3:30 pm – 4:15 pm

C12 Jane Engelberg Memorial Fellowship Presentation

0.75 Contact Hour

1: Leslie Evans, MS, CGC, Thermo Fischer Scientific, JEMF Advisory Group Chair; 2: Flavia Malheiro Facio, MS, CGC, Inova Translational Medicine Institute, 2014 JEMF Full Member Awardee

- Introduce the Jane Engelberg Memorial Fellowship (JEMF) Student Award winners for 2015 and the JEMF Full Member Award winner for 2016.
- Review the history of the JEMF award and provide an update on current initiatives.
- Discuss the current data pertaining to the 2014 JEMF Full Member Award: *Genomic Sequencing in a Population of Healthy Infants: Exploring Parental Motivations, Expectations and Utilization of Sequencing Results.*

Session Speakers and Objectives

Friday *(continued)*

Educational Breakout Sessions
4:45 pm – 6:15 pm

C13 DTC Ancestry Testing: Gateway to Genetics Education of the Public and an Emerging Professional Role for Genetic Counselors

1.50 Contact Hours

1: Brianne Kirkpatrick, MS, LGC, Geisinger Health System; 2: Elizabeth Balkite, MS, CGC, Genetic Geneaology Counsultant; 3: Elissa Scalise Powell, Certified Genealogist℠, Certified Genealogical Lecturer℠, Genealogical Research Institute of Pittsburgh

- Present case studies to demonstrate areas in which skills and knowledge of genetic counselors could be utilized to benefit consumers' understanding of and adaptation to ancestry test results.
- Discuss how outcomes of ancestry testing can influence a test taker's perception of health, risk-assessment, genetic and social relationship and identity-formation.
- Identify website tools and resources for expanding familiarity with admixture and genetic genealogy testing.
- Discuss the emerging role for genetic counselors as genetic genealogists.

C14 Mosaicism Revealed: How Technological Advances are Increasing Our Understanding of Mosaicism in Genetic Disorders

1.50 Contact Hours

1: Leslie G. Biesecker, MD, FAAP, FACMG, National Human Genome Research Institute; 2: Nancy B. Spinner, PhD, University of Pennsylvania, Children's Hospital of Philadelphia; 3: Colleen Caleshu, ScM, LCGC, Standford Center for Inherited Cardiovascular Disease; 4: Janet L. Williams, MS, LGC, Geisinger Health System

- Summarize current understanding of the role of mosaicism in genetic disorders.
- Recognize the impact of advanced genomic technologies' increased sensitivity to detect mosaicism on clinical genetic testing.
- Identify key counseling issues related to mosaicism.

C15 Next Generation Sequencing: Challenges and Strategies in Testing Patients with Circulating Hematopoietic Malignancies

1.50 Contact Hours

1: Heather Zierhut, PhD, MS, University of Minnesota; 2: Anne Deucher, MD, PhD, University of California, San Francisco; 3: Federico A. Monzon, MD, Invitae Corporation

- Identify genetic syndromes that give rise to hematopoietic malignancies.
- Recognize the complications that may arise when performing germline genetic testing in the background of hematologic malignancies.
- Describe the technical issues and clinical utility of mosaic results with next generation sequencing testing.

C16 Roe v. Wade, Kennedy-Brownback and Beyond: The Legal Landscape of Reproductive Rights and Prenatal Testing

1.50 Contact Hours

1: Laura Hercher, MA, MS, CGC, Sarah Lawrence College; 2: Stephanie Meredith, MA, National Center for Prenatal and Postnatal Resources; 3: Nancy Iannone, Esq, Rutgers University School of Law; 4: Ginny Engholm, PhD, Our Lady of the Lake College

- Recognize the historical importance and regional variation in laws related to abortion on reproductive autonomy and disability rights.
- Discuss the Down Syndrome Information Acts and recognize the effect that these new laws have on the genetic counseling profession.
- Discuss the role that genetic counselors may take in shaping future legislation that is consistent with our professional code of ethics.

Submitted by: NSGC Prenatal SIG

C17 Will the Real Testing Cost Please Stand Up?

1.50 Contact Hours

1: Brandy Freschi, MS, CGC, Perinatal Associates of Northern Nevada; 2: Rachel Drozd, Cigna Healthcare; 3: Laura Martini, MS, Counsyl

- Review the advantages and disadvantages of maximum out-of-pocket programs for clinics and patients.
- Describe how maximum out-of-pocket programs are viewed from a payer perspective.
- Discuss efforts and obstacles in providing patients with accurate estimates of insurance coverage and out-of-pocket responsibility.

Plenary Session
6:30 pm – 7:30 pm

C18 Shift Happens: Penetrance, Pedigrees and New Perspectives on Developmental Brain Dysfunction

1.00 Contact Hour

1: Brenda Finucane, MS, LGC, Geisinger Autism & Developmental Medicine Institute; 2: Christa Lese Martin, PhD, FACMG, Geisinger Health System

- Describe developmental brain dysfunction as an emerging conceptual framework that has important implications for genetic counseling.
- Reexamine existing notions of clinical penetrance in disorders involving quantitative, cognitive and behavioral traits that represent a continuum of human functioning.
- Recognize the important role of parental background in determining patterns of phenotypic expression in neurodevelopmental and psychiatric disorders.

Sponsored Evening Session
7:30 pm- 9:00 pm

C19 Genetic Counseling Considerations Associated with Next-Generation Sequencing across the Reproductive Health Continuum

1.50 Contact Hours

1: Laurie Black, MS, LCGC, Pacific Reproductive Genetic Counseling; 2: Jennifer Hoskovec, MS, CGC, University of Texas-Houston Medical School: 3: Julianne O'Daniel, MS, CGC, University of North Carolina at Chapel Hill

- Describe common next-generation sequencing (NGS) options that are available throughout the reproductive and genetic health continuum of care.
- List key considerations a genetic counselor should think of when counseling patients about NGS testing options.
- Summarize recommendations for managing clinical considerations and become aware of available patient resources.

Sponsored by: Illumina

Saturday
October 24

Sponsored Breakfast Session
7:00 am – 7:45 am

D01 The Next Step in Noninvasive Prenatal Testing Innovation: Genome-wide NIPT with cfDNA

0.50 Contact Hour

1: Ron McCullough, PhD, Sequenom Center for Molecular Medicine

- Examine the application of NIPT for whole genome analysis in the clinical prenatal setting.

Sponsored by: Sequenom Laboratories

Educational Breakout Sessions
8:00 am – 9:30 am

D02 At the Heart of the Pregnancy: What Prenatal and Cardiovascular Genetic Counselors Need to Know about Maternal Heart Disease

1.50 Contact Hours

1: Ana Morales, MS, LGC, The Ohio State University; 2: Marissa Smith, MS, LGC, Cleveland Clinic; 3: Janette Strasburger, MD, Children's Hospital of Wisconsin; 4: Marla Mendelson, MD, Northwestern Adult Congenital Heart Center

- Outline maternal and fetal risks associated with cardiovascular genetic disorders in pregnancy.
- List three family history questions that genetic counselors should ask when a cardiac disease is reported in a prenatal session.
- Illustrate the psychosocial issues that affected and at-risk women go through in order to make informed decisions.

Submitted by: NSGC Cardiovascular SIG and NSGC Prenatal SIG

D03 Cancer Panels From Research to Better Patient Care: Challenges and Current Practices

1.50 Contact Hours

1: Jill Stopfer, MS, LCGC, Abramson Cancer Center, University of Pennsylvania; 2: Michael Hall, MD, MS, Gastrointestinal Risk Assessment, Fox Chase Cancer Center; 3: Erin Salo-Mullen, MS, CGC, Memorial Sloan-Kettering Cancer Center; 4: Barbara Hamlington, MS, CGC, Rocky Mountain Cancer Centers

- Describe the cancer spectrum among mutation carriers for hereditary cancer syndromes identified through clinical testing using a 25-gene panel, compared to previously published data.
- Describe the goals and background of the Prospective Registry of Multiplex Testing (PROMPT) and its importance in furthering the genetics community's knowledge of non-BRCA cancer-related genes that are currently included on hereditary cancer multi-gene panels.
- Discuss challenges and current practices associated with cancer panel testing using a case-based approach including audience feedback on their perception of the cases.

D04 Mind the Gap: Bridging the Health Literacy Divide

1.50 Contact Hours

1: Ashley Elrick, MS, University of Utah; 2: Alix Darden, PhD, University of Oklahoma Health Sciences Center; 3: Christine Colon, MS, LCGC, Organization of Teratology Information Specialists

- Describe levels of health literacy among US adults and how average health literacy varies across social groups.
- Apply educational theories of health literacy and cognitive load to develop genetic counseling techniques which clearly communicate key genetic and genomic information to all patients.
- Evaluate the organization and incorporation of differing visual tools to aid in the communication of complex information to patients of all health literacy levels.

Submitted and Sponsored by: NSGC Education SIG

D05 Moving Genetics from the Clinic to the Community: Cancer as a Model of Population Screening

1.50 Contact Hours

1: Robert Nussbaum, MD, University of California San Francisco; 2: Megan Doerr, MS, LGC, Cleveland Clinic; 3: Heather Hampel, MS, LGC, The Ohio State University; 4: Linda Robinson, MS, CGC, UT Southwestern Simmons Comprehensive Cancer Center; 5: Beth Crawford, MS, CGC, University of California, San Francisco

- Describe how historical trends in population screening have influenced the intersection of genetic counseling and public health genetics.
- Formulate potential strategies for the implementation of a population-based screening program at the genetic counselor's own institution, such as modifying the electronic medical record.
- Evaluate the clinical and ethical benefits and limitations of population screening for a specific population, including, implementation issues, infrastructure, the need for follow-up and costs.

Submitted and Sponsored by: NSGC Cancer SIG

D06 Where Do These Results Come from and Why Do I Care? Bioinformatics for Genetic Counselors

1.50 Contact Hours

1: Eric W. Klee, MD, College of Medicine at Mayo Clinic; 2: Stephen E. Lincoln, Invitae Corporation; 3: Erica Ramos, MS, LCGC, Illumina, Inc.;

- Identify and summarize the main bioinformatics tools used with next generation sequencing, including read alignment, variant calling and variant annotation.
- Distinguish various quality metrics and assess their use in test reports and in studies.
- Evaluate validation studies and test specifications.
- Recognize the utility and limitations of bioinformatic tools in clinical practice and identify relevant resources.

Submitted by: NSGC Industry SIG
Supported by: Unrestricted Educational Grant from Asurgen

Late-Breaking Plenary Session
9:45 am – 10:45 am

D07 Hope, Hype and Horror Movies: Contemplating Human Germline Modification

1.00 Contact Hour

1: Laura Hercher, MS, CGC, Sarah Lawrence College Joan H. Marks Program in Human Genetics; 2: Carl Zimmer, New York Times

- Describe the advances in DNA editing techniques, including the CRISPR-Cas9 system, that may enable human germline editing.
- Explain the potential of mitochondrial transfer as a reproductive option for women with mitochondrial disease, and the reasons why this technique is controversial.
- Identify potential options for the regulation of human germline editing, and the pros and cons of limiting its use in research or clinical practice.

Sponsored Lunch Session
11:30 am – 1:00 pm

D08 Finding Just Right: Balancing Provider and Payer Goals for Hereditary Genetic Testing

1.00 Contact Hour

1: Robert Nussbaum, MD, Invitae Corporation, and University of California, San Francisco Medical Center; 2: Brent J. O'Connell, MD, MHSA, Christopher Place Health Care Solutions; 3: Katherine Spoonamore, MS, CGC, LGC, Indiana University School of Medicine; 4: Amber P. Trivedi, MS, LCGC, InformedDNA; 5: Michelle A. Fox, MS, LCGC, Independent Consultant, Invitae Corporation

- Define the needs and goals of genetic testing from both the payer and the genetic counselor's perspective and how those needs and goals are evolving.
- Assess the gap between how genetic counselors use genetic testing and how current coverage policies provide these services.
- Outline how the genetic counseling community can work with payers to improve access to genetic testing coverage and create efficient programs to ensure appropriate utilization and testing.

Sponsored by: Invitae

Plenary Session
1:00 pm – 1:45 pm

D09 The Match of the Decade: Gene Panels versus Whole Genomes/Exomes

0.75 Contact Hour

1: Robert Nussbaum, MD, Invitae Corporation, and University of California, San Francisco Medical Center

- Describe the benefits and limitations between gene panels and whole genomes/exomes in regards to different subspecialties of the genetic counseling profession.
- Explore which testing modality is better and when this testing is beneficial for the patient and society.
- Discuss the complex legal implications with genetic testing and advancing technology.
- Examine the role of the genetic counselor in determining the best test for the patient.

Concurrent Papers

Friday, October 23

1.50 Contact Hours

	C02 – Access and Service Delivery I 1. Identify roles for genetic counselors in specialized clinical populations. 2. Recognize novel approaches in the provision of genetic counseling care. 3. Explore the ways in which genetic counselors enhance patient care beyond a clinical encounter.	**C03** – Clinical Care: Cancer 1. Identify the latest developments in evaluation and testing for inherited cancer predispositions. 2. Discuss issues that are unique to individuals with an inherited cancer predisposition. 3. Explore the impact of emerging technology on cancer-focused clinical care.	**C04** – Genetic/Genomic Testing 1. Discuss the latest developments in the field of diagnostic testing and test interpretation. 2. Describe the impact of next-generation sequencing on patient diagnosis. 3. Understand ways of transitioning genetic testing discoveries into optimal patient care.	**C05** – Professional Issues and Education 1. Describe approaches and issues in clinically-focused genetic counseling education 2. Evaluate tools for providing genetics/genomics education to students, patients and clinicians. 3. Identify approaches of applying research discoveries to clinical care.
	Room 315/316	*Room 319/320/321* *Supported by unrestricted educational grant from:* myriad WHEN DECISIONS MATTER	*Room 301/302/303*	*Room 317/318*
8:00 AM – 8:15 AM	Psychiatric Genetic Counseling: A Practice Model from the World's First Clinic *A. Inglis*	Hereditary Hematological Malignancies: A Hereditary Leukemia Clinic, One Year in Review *S. Bannon*	Genetic Testing for Hereditary Cancer Predisposition: The Impact of the Number of Tests Presented and a Provider Recommendation on Decision Making Outcomes *M. Barr*	Transition Curriculum: An Educational Framework for Supporting Genetic Counseling Students *C. Guy*
8:15 AM – 8:30 AM	A Novel Genetic Counseling Service Delivery Model in a Pediatric/General Genetics Clinic Setting *C. Harper*	Preliminary Results of Expanded Hereditary Cancer Panel Testing: Is More Always Better? *J. Guiltinan*	Characterizing Personal Utility: A Systematic Literature Review *J. Kohler*	Students' Perceptions of Supervision Across a Year of Clinical Rotations *I. MacFarlane*
8:30 AM – 8:45 AM	Role for Genetic Counselors in Creating Clinical Decision Support Messages for Genomic Results *S. Aufox*	Incidence and Spectrum of Germline Mutations in Cancer-Predisposing Genes in Children with Cancer: A Report from the Pediatric Cancer Genome Project *R. Nuccio*	Variant Sign-out Practices for Exome and Genome Sequencing Results: Current Roles of Genetic Counselors *L. Amendola*	A Sustainable Model for Blended Learning in Genetics and Genomics *E. Edelman*
8:45 AM – 9:00 AM	Leveraging Data to Provide Financial Justification for Additional Genetic Counselor Full Time Equivalent and Resources: Turning a Pilot into Reality *J. Conta*	Evaluating the NCCN Clinical Criteria for *BRCA1/2* Genetic Testing in Breast Cancer Patients *C. Cropper*	Estimating the Impact of Proposed FDA Regulation of Laboratory Developed Tests *G. Hooker*	Interpreting for Genetic Counselors: Identifying Common Pitfalls and Solutions *R. Delgado Hodges*
9:00 AM – 9:15 AM	Partnering with Patient Services Associates to Streamline Insurance Authorization Requests for Genetic Testing *W. Uhlmann*	High Frequency of Germline Mutations Among Unselected Patients Enrolled in a Tumor/Normal Cancer Genomic Sequencing Project *J. Everett*	The Importance of Carrier Screening in Individuals of Sephardic, Mizrahi and Persian Jewish Descent *S. Famer*	Design, Implementation, and Outcomes of a "Psychiatric Genetics for Genetic Counselors (PG4GC)" Workshop in the UK *J. Austin*
9:15 AM – 9:30 AM	Genetic Counselors are Underutilized in Their Professional Capacities *V. Raymond*	The Angelina Jolie Boomerang Effect: How Are Things Different This Time Around? *J. Huang*	Updates from the Canadian Open Genetics Repository (COGR): A Unified Clinical Genome Database as a Community Resource for Standardizing and Sharing Genetic Interpretations *S. White*	Development of EMPOWER: Evaluation Model for Patient Outcomes When Engaging in Reciprocal Communication as Part of Genetic Service Delivery *H. Zierhut*

Saturday, October 24

1.50 Contact Hours

	D10 – Access and Service Delivery II 1. Identify roles for genetic counselors in specialized clinical populations. 2. Recognize novel approaches in the provision of genetic counseling care. 3. Explore the ways in which genetic counselors enhance patient care beyond a clinical encounter.	**D11** – Clinical Care: Counseling and Psychosocial Perspectives 1. Discuss the ways in which the lived experience of a genetic diagnosis impacts care. 2. Develop novel clinical approaches for providing genetic counseling to varied communities. 3. Describe the ways in research can inform/enhance clinical care.	**D12** – Clinical Care: Pediatrics and Adults 1. Discuss the latest developments in genetic testing for adult/pediatric patients and their families. 2. Understand the impact of research on pediatric/adult-focused care. 3. Describe the attitudes and experiences of patients and providers in adult & pediatric clinics.	**D13** – Clinical Care: Pre/Perinatal 1. Discuss the latest developments in prenatal testing. 2. Explore unique aspects of care in the prenatal setting. 3. Describe the experiences and attitudes of patients and providers in prenatal clinics.
	Room 315/316	*Room 317/318*	*Room 301/302/303* *Supported by unrestricted educational grant from:* illumina®	*Room 319/320/321*
2:00 PM – 2:15 PM	The Beneficial Role of the Laboratory Genetic Counselor in Test Utilization Management: Evidence and Opportunities from a Multisite Study of Provider Satisfaction *J. Conta*	Roles for Religion and Spirituality in Genetic Counseling *K. Salsbery*	Predispositional Genome Sequencing in Healthy Adults: First Findings from the PeopleSeq Study *M. Helm*	Something Extra on Chromosome 5: Couples' Understanding of Positive Prenatal Chromosomal Microarray Analysis (CMA) Results *B. Bernhardt*
2:15 PM – 2:30 PM	Demonstrating Feasibility of a Collaborative Approach to Cancer Risk Assessment Services in a Multi-system Community Hospital *S. Cohen*	Spiritual Exploration in the Prenatal Genetic Counseling Session *K. Sagaser*	ACMG Recommended Secondary Findings are Identified in Only 2.25% of Pediatric Patients Undergoing Exome Sequencing *Z. Powis*	Patient Responses to cfDNA Testing for Aneuploidy in a General Pregnancy Population: Preliminary Results of the Rhode Island Experience *E. Kloza*
2:30 PM – 2:45 PM	Increasing Genetic Counseling Referrals for Women with Ovarian Cancer: Utilization of a Best Practice Advisory in the Electronic Medical Record *J. Marquard*	Peering Down the Rabbit Hole: Living with Von Hippel-Lindau Syndrome from the Young Adult Perspective *L. Schmidt*	Exploring How the Risk of Sudden Cardiac Death is Discussed in Families with a Diagnosis of a SADS Condition *K. Wiley*	NIPS + FTS = ?: A Consideration of the Next Steps of Prenatal Screening *E. Suskin*
2:45 PM – 3:00 PM	Retesting Patients with Multi-Gene Hereditary Cancer Panels: The Impact on a Genetic Counselors' Patient Volume *C. Mauer*	Development and Use of a Novel Scale: Parents' Uncertainties about Their Child's Health *E. MacNamara*	Research Participation in the Duchenne Muscular Dystrophy Community: Parent Perceived Barriers and Their Impact on Families *K. Clinard*	Smith-Lemli-Opitz Syndrome is as Common in Caucasians and Ashkenazi Jewish as Spinal Muscular Atrophy: Accurate Carrier Frequencies Identified through Expanded Carrier Screening *G. Lazarin*
3:00 PM – 3:15 PM	Decision Making across Cultures: Cancer Counseling of Low-income Latina Women Using Medical Interpreters *D. Kamara*	Psychological Impact of Exercise Restrictions in Recreational Athletes with Hypertrophic Cardiomyopathy *R. Luiten*	Sleep Disturbances in Children with Phelan-McDermid Syndrome and Their Caregivers *D. Bro*	The Experience of Vulnerable Patients Participating in Prenatal Research Following a Diagnosis of Down Syndrome *B. Greene Crissman*
3:15 PM – 3:30 PM	Comparing Knowledge Gain between In-person and Telemedicine Genetic Counseling for Hereditary Breast Cancer *M. Hallquist*	Knowledge and Self-Esteem of Individuals with Neurofibromatosis Type 1 *K. Roshau*	The Clinical Utility of A Multi-Gene Panel for Neuromuscular Disorders *M. Bradbury*	Prenatal Diagnosis of Down Syndrome: Genetic Counseling as a Significantly Unique Service *K. Berrier*

Posters with Authors

Poster Sessions Supported by unrestricted educational grant from Illumina

Objectives:

- Recognize varied approaches to building an evidence base to support best practices in genetic counseling.
- Identify opportunities for the genetic counseling community to expand the reach of genetic/genomic-based care.

B10 Odd Numbered Presentations

Thursday, October 22
2:00 pm – 3:00 pm
1.00 Contact Hour

C10 Even Numbered Presentations

Friday, October 23
1:15 pm – 2:15 pm
1.00 Contact Hour

Access and Service Delivery

1 A Glimpse into the Future: Disclosure of Genomic Sequencing Results by Non-genetics Physicians
C. Blout

2 A Unique Service Delivery Model for Genetic Counseling Services
E. Denne

3 Evaluating the Impact of Group Genetic Counseling Sessions in the BRCA Community Study
B. Georges

4 Facilitating the Continuum of Care: A Model for Utilization of the Electronic Medical Record to Transition Patients from Perinatal to Pediatric Genetics
C. Grabarits

5 Community-based Cancer Genetics: Evaluating the Planned Parenthood System
S. Greenberg

6 Be Careful What You Wish For: The Downstream Impacts of Genetic Counseling Licensure
M. Hardy

7 Greater Professional Autonomy and Recognition with Use of a Novel Genetic Counseling Service Delivery Model in a Pediatric/General Genetics Clinic Setting
C. Harper

8 Texas Physicians' Awareness and Utilization of Genetic Services
C. Jenevein

9 Next-generation Counseling: Increased Efficiency and High Patient Satisfaction Utilizing Web Technology and Telephone for Post-carrier Screen Counseling and Education
G. Lazarin

10 Participant Perspectives and Efficiency of iPads in Pedigree Construction and Assessment
A. McCarty

11 Cancer Genetic Counseling by Video Teleconferencing along the Texas-Mexico Border
L. Mette

12 Making Sense of a Primary Care Role in Genomic Medicine: Views of Genetics Health Professionals
S. Morrison

13 A Genomic Education/Decision Support Tool for Clinical Sequencing
B. O'Connor

14 Genetic Telecounseling: Ensuring Quality Patient Care by Examining Initial Experiences
N. Paolino

15 Partnering with Industrial Engineering to Obtain Critical Programmatic Resources
V. Raymond

16 Fetal Center Web Directory Provides Easy Access to Fetal Center Genetic Counselors
S. Reichert

17 Barriers and Motivators for Genetic Counseling Services: A Physician Survey
C. Rigelsky

18 What We Have Learned and What We Need to Change: Two-year Experience of a Newly Established Prenatal Genetics Clinic in Japan
C. Tamura

19 Genetic Testing "Pain-perwork": Improving the Collection and Submission of Clinical History for Genetic Test Orders
S. Stasi

20 Developing a Cancer Genetic Counseling Service at an Institution Serving Minority Populations: The Howard University Cancer Center Experience
N. Thompson

21 Benchmarking the Process of Genetic Testing Insurance Authorization in a Large Academic Medical Center
W. A. Uhlmann

Adult

22 Communication Strategies Utilized by People with NF2 and Hearing Loss
A. Bergner

23 The Diagnostic Process of Ehlers-Danlos Syndrome and the Symptoms Leading to the Diagnosis: A Pilot Study of 25 Rheumatology Patients
M. Chuldzhyan

24 The Relationship between Delayed Diagnosis and Quality of Life in Individuals with Fabry Disease
L. McCoy

25 An Exploration of the Approach to Family Planning among Adult Siblings of Individuals with Undiagnosed Conditions
H. Porter

26 Absence of Genotype-Phenotype Correlations in *RPE65*: Implication for Identification of Patients Suitable for Gene Therapy
K. Trzupek

27 The Diagnostic Odyssey in the Young Adult Population: A Case Perspective of Desminopathy
J. Stone

28 Increasing Diagnosis and Treatment in Hereditary Angioedema
K. Trzupek

29 Knowledge and Patient Satisfaction following Genetic Counseling for Patients with Inherited Retinal Dystrophy
K. Zajo

Adult/Cardiology

30 Genetic Testing Experience in a Large Cardiovascular Genetics Referral Program
L. Dellefave-Castillo

31 Diagnostic Exome Sequencing with Inheritance Model-based Analysis: Results from a Cohort of 81 Probands Referred with Cardiac Indications as Compared to the Group of 500 Unselected Families with Undiagnosed Genetic Conditions
M. Bunnell

32 Pulmonary Arterial Hypertension: Specialists' Knowledge, Practices and Attitudes of Genetic Testing and Genetic Counseling
J. Jacher

33 MicroRNAs as a Marker of Cardiovascular Disease in Marfan Syndrome and Marfan-related Disorders
T. Nguyen

34 Familial Hypercholesterolemia: Characterization of a Pediatric Population and Evaluation of Parental Knowledge and Attitudes
J. Phetteplace

35 Patient Recall, Interpretation and Perspective Regarding an Inconclusive Result in Long QT Syndrome Genetic Testing
S. Predham

36 Preimplantation Genetic Diagnosis in Familial Dilated Cardiomyopathy: Potential Limitations and the Continued Role of Medical Genetics
B. Psensky

37 Goal Achievement in Young Adults with Asperger Syndrome and High Functioning Autism
M. Racobaldo - WITHDRAWN

38 Psychological Effects of a Positive Test Result in a Cardiomyopathy Gene: A Comparison of Symptomatic and Asymptomatic Mutation Carriers
N. Salvatore

39 Moving Beyond the 1%: Incorporating the Exome Aggregation Consortium (ExAC) Data into Variant Interpretation and Classification
J. Tahiliani

Cancer

40 End of Life Discussions: Exploring How to Talk about Hereditary Cancer at the End of Life
L. Bailey

41 The Impact of a Clinic-based Pancreatic Cancer Research Registry in Identifying Actionable Germline Mutations
C. Bascunana

42 The Ever-changing Role of Genetic Counseling in Oncology
C. Benson

43 Assessing Documentation of Cancer Family History in the Pediatric Oncology Setting
K. Bergstrom

44 A Population-based Sample of Breast Cancer Survivors Who Accessed BRCA Testing Recalled Greater Adherence to Cancer Genetic Counseling Practice Guidelines When a Genetic Healthcare Provider Was Involved
D. Bonner

45 Personal and Family Cancer History in Li-Fraumeni Syndrome Diagnosed on Multi-gene Testing
J. Brzosowicz

46 Characteristics of Li-Fraumeni Syndrome in a *CHEK2* Multi-gene Panel Cohort
L. Bucheit

47 Referrals to Genetic Counseling in Patients with Breast Cancer Based on National Comprehensive Cancer Network Guidelines
S. Carroll

48 Determining the Clinical Significance of a *MSH2* VUS in a Family with Lynch Syndrome
D. Collins

49 Forget the Guidelines? Atypical Presentations of Well-defined Hereditary Cancer Syndromes
V. Costello

50 Pedigree Modeling Demonstrates that Family History Performs Poorly for the Identification of Women with Inherited Risks for Breast Cancer
H. Cox

51 Utilizing Kentucky Cancer Registry Data to Evaluate Cases Appropriate for Referral to Genetic Services for Hereditary Breast and Ovarian Cancer Syndrome and Lynch Syndrome, 2009-2012
A. Durst

52 Clinical Impact of Multi-Gene Testing for Hereditary Breast and Ovarian Cancer in a Large Representative Population
L. Ellisen

53 Testing Relatives of Moderate Penetrance Breast and Ovarian Cancer Gene Mutation Carriers: Current Practices of Genetic Counselors
E. Fassi

54 Familial Cancer Syndromes in African American Women with Ovarian Cancer
R. Gold

55 Pathogenic Mutations Identified in Patients with Six or More Colon Polyps
K. Grace

56 Outcomes of Cancer Patient-oncologist Interactions Concerning Familial Risk of Cancer and Referral to Cancer Genetics Services
E. Henson

57 Impacts of Targeted Population Screening Program Implementation on a Cancer Genetics Clinic
L. Kiedrowski

58 An Investigation of Women at High Risk for Hereditary Cancer Who Do Not Utilize Genetics Services: What Are They Communicating to Their Families?
M. Kieke

59 Pontocerebellar Hypoplasia Type 6: A Diagnostic Odyssey and Genetic Counseling Dilemma
C. Kiss

60 One Clinic's Experience with *CHEK2* Mutations Other Than c.1100delC
R. Koff

61 Coordinating Laboratory and Clinical Data to Incorporate Endometrial Tumor Testing into the Universal Lynch Syndrome Screening Program at Geisinger Health System
A. Kulchak Rahm

62 Phenotype Comparison Between Founder and Non-Founder *CHEK2* Mutation Carriers
T. Leedom

63 Assessment of Constitutional Mismatch Repair Deficiency Syndrome (CMMRD) Testing Criteria in a Pediatric Cancer Genetics Clinic
R. McGee

64 Comparing Yields and Referral Criteria for the Lynch/Colorectal High Risk Panel and the Colorectal Cancer Panel
A. McGill

65 Complex Counseling Issues Regarding Cancer Panels: Genetic Counselors' Experiences Regarding Communication of Reproductive Risks Associated with Autosomal Recessive Conditions
S. Mets

66 A Rare Presentation of Familial Adenomatous Polyposis
J. Mikkelson

67 Recontacting Patients in the Age of Panel Testing: Cancer Genetic Counselors' Practice and Perspective
A. Mueller

68 Lifestyle Risk Factors among Cancer Genetic Testing Patients
J. Quillin

69 Managing Uncertainty: Lessons Learned from Utilizing a Biallelic *MSH6* VUS to Alter Clinical Care
E. Quinn

70 Congenital Wilms Tumor in a Father and Daughter Found to Carry a Novel Truncating Mutation in the *WT1* Gene
L. Rhodes - WITHDRAWN

71 Hereditary Cancer Testing for Patients of Ashkenazi Jewish Ancestry in the Era of Panel Testing
J. Rinsky

72 Outcomes of Multi-gene Testing for Inherited Cancer Risk in Patients of Varied Ancestries
E. Rosenthal

73 Urologists' Current Practices in Screening and Treating Men with a Family History of Prostate Cancer
L. Rudichuk

74 Identification of a Recurrent Pathogenic Variant in *BRIP1*
S. San Roman

75 Predispositions to Lymphoma: A Practical Guide for Genetic Counselors
M. Similuk

76 Cancer Incidence in First and Second Degree Relatives of BRCA Mutation Carriers
H. Streff

77 Evaluating the Appropriateness of Hereditary Breast and Ovarian Cancer Genetic Referrals by National Comprehensive Cancer Network Guidelines and Predictive Risk Models
C. Tallo

78 Yield of Genetic Testing for Hereditary Cancer among Male Patients
K. Theobald

79 Characterizing the Clinical Cancer Presentation of Individuals with Pathogenic Variants in *NBN*
K. Theobald

80 Physician Views on Genetic Testing and Cancer Surveillance in Asymptomatic Minors at Risk for Li-Fraumeni Syndrome
K. Wolfe Schneider

81 Assessment of Current Practices in Post-visit Written Patient Communication Among Genetic Counselors
E. VandenBoom

Counseling/Psychosocial Issues

82 An Exploration of the Genetic Counselor - Patient Relationship Following a Life-limiting Prenatal Diagnosis
S. Anderson

83 The Effect of Room Environment on Patient Experience in a Prenatal Genetic Counseling Session
E. Baack

84 An Exploration and Analysis of the Reproductive Decision-making Process in Parents of Children with Wolf-Hirschhorn/4p Deletion Conditions
L. Baldwin

85 Telling the Truth about Turner Syndrome: Disclosure of a Diagnosis and Infertility to a Romantic Partner
N. Carroll

86 The Impact of Online Images of Neurofibromatosis Type 1 on the Parents of Newly Diagnosed Children
M. Cushing

87 Secondary Finding Preferences in Whole Genome Sequencing: Experiences with a Large Developmental Delay Cohort
K. East

88 Assessing the Perception of Fertility Preservation within the Turner Syndrome Community
R. Gaber

89 Impact of Huntington's Disease Gene Positive Status on the Lives of Presymptomatic Young Adults and Recommendations for Genetic Counselors
P. Gong

90 Does a Negative Prenatal Genetic Screen Result Impact Maternal-fetal Bonding?
C. Hippman

91 Conception through Gamete Donation: Unique Counseling Considerations in the Era of Genome-wide Testing
L. Isley

Posters with Authors *(continued)*

92 The Patient Experience Matters: Emotional Reactions to Expanded Carrier Screening
N. Kumar

93 The Importance of Social Support in the Undiagnosed Diseases Community
E. MacNamara

94 Genetics Education and Counseling of Incarcerated Women: Beginning the Conversation
J. Miller

95 Experiences with Whole Exome Sequencing
D. Mouhlas

96 Family History: Separating Truth from Fiction. Cancer Risk Assessment's Unique Vulnerability to Munchhausen Syndrome
K. Murray

97 Patients' Opinions on Genetic Counseling on the Increased Risk of Parkinson's Disease among Gaucher Disease Carriers
M. Mulhern

98 Parents' Experience Having a Child Diagnosed With More than One Genetic Disorder
P. Nassab

99 Parental Disclosure of Familial Amyotrophic Lateral Sclerosis Diagnosis and Mutation Status to Children: Perceptions of Young-adult Offspring
S. Neumann - WITHDRAWN

100 Paternal Adaptation to a Child's Diagnosis of Fragile X Syndrome: Predictors of Individual and Family Well-being
K. Partynski

101 Social Connections in Families with Li-Fraumeni Syndrome: A Preliminary Report
J. Peters

102 Prenatal Genetic Testing and Screening for Consanguineous Couples: Is Clinical Practice Consistent with Practice Guidelines?
N. Reddy

103 The Role of Counseling in Facilitating Parent-Child Communication about Genetic Breast Cancer Risk
K. Tercyak

104 From Projection to Empathy: Characterizing Genetic Counselors' Countertransference Experiences
R. Reeder

105 Understanding Psychosocial Outcomes among Couples Affected by Genetic Breast Cancer Risk: Counseling Implications
K. Tercyak

106 Life with a Primary Immunodeficiency
A. Wang

Education

107 The Relationship between the Supervisor Role and Compassion Fatigue and Burnout in Genetic Counseling
K. Allsbrook

108 Training Methods for Delivering Difficult News in Genetic Counseling and Genetics Residency Training Programs
L. Andoni

109 Exploring Communication Patterns in the Discussion of Maternal Phenylketonuria Syndrome between Parents and Daughters
H. Andrews

110 Lessons Learned from the Development of an Educational Curriculum for Potential and Confirmed Female Carriers of Hemophilia
R. Butler

111 An Assessment of College Students' Knowledge of the Importance and Awareness of Family Health History
E. Cox

112 A Content Analysis and Readability Assessment of Websites for Lynch Syndrome
K. Davis

113 Development of a Knowledge-Based Survey Tool to Assess Comprehension of Genetic Counseling for Advanced Maternal Age
C. Dreyer

114 An Effective Lesbian, Gay, Bisexual and Transgender (LGBT) Cultural Competency Curriculum for Genetic Counseling Students
K. Gallagher

115 Genetics Literacy of Sickle Cell Disease: Assessing the Inheritance Knowledge of Young Adults Affected with Sickle Cell Disease
C. Genetti

116 Shadowing of Clinical Genetic Counselors as an Admissions Criteria for Genetic Counseling Programs
S. Gilvary

117 LGBT Genetic Counseling: What Do Cancer Genetic Counselors Want to Know?
N. Harada

118 Genetic Counselors, Graduate Students and Upwards Evaluation of the Supervision Experience
S. Gilvary

119 Strategies Used by Genetic Counselors to Mitigate the Effect of Low Patient Health Literacy
T. Haygarth

120 Genetics and Personalized Medicine: A Comparison of College Students' Perspectives
M. Helm

121 Genetic Counseling Graduate Program Websites and Their Influence on Prospective Student Application Decisions
K. Hermann

122 The Development of Visual Aids for Genetic Counseling about Multi-gene Hereditary Breast Cancer Panels
L. Higgs

123 Investigation of the Common MELAS Mutation in the Northwestern Pennsylvania Amish Community: Mutation Frequency and Effectiveness of an Educational Intervention
A. Irani

124 A Molecular Laboratory Rotation for Genetic Counseling Students: No Lab Required
B. Karczeski

125 The Interface Between Genetic Counselors and Obstetricians: Education Concerning Non-invasive Prenatal Screening
J. Koenig

126 LEND-Genetics Fellows: Long-term Assessment of Interdisciplinary Skills, Service and Leadership
C. Koptiuch

127 Sex Education and Intellectual Disability: Perspectives and Insights from Pediatric Genetic Counselors
C. Murphy

128 Evaluation of the Impact Program, a Disability Immersion Experience, in Genetic Counseling Education
X. Qiao

129 Medicine's Future: An Education Program Designed to Improve Genomics Practice in a Community Hospital
K. Reed

130 Development of an Interactive Online Clinical Whole Genome Sequencing Educational and Engagement Tool
V. Raymond

131 Bringing Sociometrics to the Classroom
E. Sanborn

132 Parental Perspectives of Array Comparative Genomic Hybridization Educational Tool
C. Williams

133 Measuring the Effectiveness of a Genetic Counseling Supervision Training Conference
K. Wusik

ELSI

134 Potential Clinical Use of *APOE* Testing in the Population at Risk for Traumatic Brain Injury: A Survey of National Collegiate Athletic Association Student Athletes
M. Caudle

135 Development of Recommendations for Ordering Clinicians with Minimal Genetics Background from the ClinGen Consortium Consent and Disclosure Recommendations Committee
W. A. Faucett

136 A Qualitative Study of Adolescents' Understanding of Biobanks and Their Attitudes Towards Participation, Re-contact and Data Sharing
A. Murad

137 Directiveness in Genetic Counseling: Adapting to Increasingly Complex Tests
M. McDaniel

138 Developing an Abbreviated Consent for Broad Data Sharing in the Clinical Setting
A. Niehaus

139 Enriching the Clinical Ethics Education for Genetic Counseling Graduate Students Through Team-based Learning
S. Noblin

140 Counseling Close to Home: Genetic Counselors' Experiences Providing Genetic Counseling to Their Own Family Members
L. Otto

141 Patient Education and Informed Decision Making: An Assessment of Consent Documents for Non-invasive Prenatal Genetic Screening
R. Ryan

IT IS POSSIBLE TO GIVE YOUR PATIENTS A SENSE OF RELIEF!

Provide your patient with complete fragile X risk assessment.

Without Xpansion Interpreter®, your patient's risk assessment for having an affected child is incomplete.

To learn more, visit us at booth #501 or online at www.fragilexcarrier.com

Visit booth #501 to enter for a chance to win a shopping spree worth $300!

Xpansion Interpreter® AsuraGen®

Posters with Authors *(continued)*

142 Exploring the Importance of Guardianship for Individuals Coming of Age with 22q11.2 Deletion Syndrome
C. Troyer

143 Views of Genetic Counselors on the Use of PGD for Social Sex Selection Purposes
B. Yu

Genetic/Genomic Testing

144 Parental Reasons for Participation and Reactions toward Return of *CYP2D6* Research Results
S. Adelsperger

145 Evaluating Changes in Patient Anxiety Regarding Classic Cancer Genetic Testing versus Expanded Multiplex Cancer Genetic Testing: Pilot Study
A. Alfonso

146 ACMG Incidental Findings: Genetic Counselors' Views on Disclosure
S. M. Ancheta

147 11p13 Microdeletion Involving Partial Deletion of *ELP4* in a Newborn Patient without Aniridia
A. Bandholz

148 Twins and Triplets and Quads, Oh My! A review of MaterniT21 PLUS® Assay Results in Multifetal Pregnancies
T. Boomer

149 Isochromosome Formation as a Rare, Recurrent Mechanism for the Occurrence of Isolated Trisomy 10p
C. Campbell

150 Lack of Standardization in Laboratory Reporting of Variants Outside the Coding Region: A Case Report
S. Cohen

151 Comparing Gene Panel and Augmented Exome Tests Using a "Gold-Standard" Dataset
G. Chandratillake

152 Isolated Retinitis Pigmentosa and Usher Syndrome within a Single Family
I. Cuperus

153 Genetic Testing Strategies for Patients with Epilepsy and Neurodevelopmental Disorders
A. Decker

154 Mutations in *SPATA5* are Associated with a Novel Autosomal Recessive Disorder of Microcephaly, Intellectual Disability, Seizures and Hearing Loss
S. DeWard

155 Expanding the Mutation Spectrum for Noonan-like Syndrome with Loose Anagen Hair
M. Dillon

156 Mutations in *CASK*: Challenging the Genotype - Phenotype Correlations
H. Dubbs

157 Exploring Attitudes of Adopted Individuals on the Utility and Value of Universal Carrier Screening
S. Ewing

158 Expanded Carrier Screening is Vital in Appropriately Screening the Ashkenazi Jewish Population
S. Farner

159 A Patient-Centered Online Resource for Segregation and Reclassification of Variants of Uncertain Significance
L. Garrett

160 Selecting the Best Specimen Type for Genetic Testing: A Survey of the Experience, Knowledge and Practices of Genetic Counselors
S. Geisler

161 Evidence of Aneuploid Rescue as Revealed by Circulating Cell Free DNA Testing
J. Helgeson

162 The Usage of Existing Practice Guidelines May Miss Half of Pathogenic Mutations in Hereditary Cancer
L. Hellwig

163 *APOE* Genotyping: Are We Ready for Clinical Use? A Survey of Physicians
M. Herzog

164 Assessing Test Quality in a Rapidly Changing Genetic Testing Landscape
G. Hooker

165 Ophthalmologists' Perspectives on and Utilization of Genetic Testing
M. Jacobs

166 SNP Array: Valuable Tool to Guide Targeted/ Accurate/Cost-effective Diagnosis of Autosomal Recessive Conditions
G. Jervis

167 A Case of Salt-wasting Congenital Adrenal Hyperplasia Resulting from Two De Novo Mutational Events in *CYP21A2* in Two Generations
M. Kluge

168 Genetic Testing Outcomes for Hearing Loss in a Multidisciplinary Hearing Clinic Setting
K. Kocsis

169 Whole Exome Sequencing Identifies the First *PANX1* Germline Mutation in an Individual with Intellectual Disability, Hearing Loss, Endocrine Dysfunction and Skeletal Abnormalities
K. Levine

170 A Rigorous Approach for Evaluating the Importance of Sanger Confirmation of Next-generation Sequencing Findings: A Call for Collaboration
S. Lincoln

171 Pan-ethnic Carrier Screening for Cystic Fibrosis: A Call for a Standardized Expanded Mutation Panel
C. Marks

172 A Unique Finding of Somatic Mosaicism for a Novel Mutation in the Already Rare X-linked Joubert Syndrome
M. McDaniel

173 Anticipation, Ancestry, Anxiety and Autonomy: Adoptive Mothers' Views on Genetic Testing of Their International Adoptees
O. Michel

174 Increasing the Diagnostic Yield from an Eye Disorders Panel: What Can Clinical Genetics Professionals Do to Get the Most for Their Patient
L. Mighion

175 Zero to Four: How Many AGG Interruptions are Commonly Seen in *FMR1* Intermediate and Premutation Alleles?
S. Mundy

176 Parental Testing for Variants of Unknown Signficance: Is It Worth It?
A. Narravula

177 Rare and Novel Cystic Fibrosis Variants Are Prevalent in Pan-ethnic Populations
D. Neitzel

178 Next-Generation DNA Sequencing: Improving the Accuracy of Routine Carrier Screening
D. Neitzel

179 Benign Variants in *HEXA* Account for Enzyme Positive Results for Tay-Sachs Disease Carrier Screening in African Americans
D. Neitzel

180 Genetic Counselors' Current Practices, Challenges, and Needs for Support with Clinical Exome and Genome Sequencing
K. Newell

181 The Integration of the ACMG ISV Guidelines in Clinical Variant Analysis and Interpretation Processes: A Model for Diagnostic Standardization and Classification
K. Nykamp

182 Clinically Significant Variants Detected via Whole Genome Sequencing and Reported in a Large Healthy Adult Cohort: Clinical Utility and Pre-test Counseling Implications
D. Perry

183 Germline Mosaicism Detection with Family-centered Exome Sequencing: More Common than Previously Recognized?
Z. Powis

184 Attitudes Toward Informed Consent Regarding Incidental Findings among Parents of Children Undergoing Clinical Exome Sequencing
K. Ray

185 The Importance of Laboratory Genetic Counselor Review of BRCA Test Orders at LabCorp
C. Riordan

186 Marfan Syndrome or Not? An Unexpected Finding on Whole Exome Sequencing
V. Roberts

187 Diversity Within: The Complexities of Genetic Heritage in the Latin American Population
E. Shehan

188 Three Cases of Familial Pseudodominance in Pompe Disease: Are Current Practices Missing Diagnostic and Treatment Opportunities?
J. Sullivan

189 Experience with Global Panethnic Genetic Carrier Screening in a Diverse Preconception Patient Population in Texas
B. Swope

190 Mosaic Tetrasomy 18p: Discordant Results between Noninvasive Prenatal Screening and Fetal Karyotyping
B. Tucker

191 Analysis of Incidental Findings and Patient Preferences regarding Return of Results in Medical Exome Sequencing
K. Wiens

BOULDER ABORTION CLINIC

Specializing in Late Abortion for Fetal Disorders
Quality Care for Women Since 1973

Warren M. Hern, MD, MPH, PhD

Director
American Board of Preventive Medicine
Fellow, American College of Preventive Medicine
Associate Clinical Professor, Department of Obstetrics & Gynecology
University of Colorado Health Sciences Center

Author
Abortion Practice
Philadelphia: J.B. Lippincott, 1984
Boulder: Alpenglo Graphics, 1990
(soft cover edition)

- Outpatient abortion over 30 menstrual weeks for selected patients with documented fetal anomaly, fetal demise, or medical indications
- Routine preoperative ultrasound evaluation for all patients
- Routine preoperative use of laminaria for maximum safety
- Individual counseling and support
- Highly experienced and dedicated professional staff
- Tradition of research and teaching in abortion services
- Founding institutional member, National Abortion Federation
- Bilingual staff and physician: fluent in Spanish, Portuguese, and Italian
- Recent research publications on request
- Consultations on request

1130 Alpine Avenue, Boulder, CO 80304
Tel: (303) 447-1361 • (800) 535-1287 • Fax: (303) 447-0020
www.drhern.com

Posters with Authors *(continued)*

192 De Novo Pathogenic Variants in *DDX3X* are a Novel Cause of Intellectual Disability in Females
L. Williams

193 Test Sequentially or Test Concurrently? An Analysis of Clinical Approaches to Expanded Carrier Screening
S. Yarnall

Pediatrics

194 Whole Exome Sequencing Identifies *POGZ* Mutations as a Cause of Neurodevelopmental Disorders and Microcephaly
N. Alexander

195 Investigation of Speech and Language Disorders in Patients with 1p36 Deletion Syndrome
C. Bac - WITHDRAWN

196 Retrospective Study of Obesity in Children with Down Syndrome
J. Basil

197 The Path to Inclusion: Parent Perspectives on the Transition of their Children with Down Syndrome into an Inclusion Classroom
E. Bryant

198 Autism is Not Always Present in Individuals with *ADNP* Mutations: Expanding the HVDAS Phenotype
G. Cowing

199 Novel Discriminant Functions based on Brain MRI Extra-Axial Fluid Measurements Allows Differentiation between Glutaric Acidemia Type 1 and Benign Enlargement of the Subarachnoid Spaces of Infancy
C. Faig

200 Education of Children with Sanfilippo Syndrome: Identification of Needs, Challenges and Services Required for Children with Sanfilippo Syndrome by Their Parents
L. Gotsell

201 Adolescent-centered Transition Program for Adolescents and Young Adults with Sickle Cell Disease
B. Harrison

202 Online Cognitive Assessment of 15q11.2 Deletion Carriers Reveals Domain Specific Impairments
P. Hemati

203 Two Siblings with a New Form of Spondyloepimetaphyseal Dysplasia: No Closer to a Diagnosis after Negative Whole Exome Sequencing
K. Langley

204 Carey-Fineman-Ziter Syndrome Can Be Caused by Mutations in *TUBB3*
E. Leo

205 Parents' Information-seeking Journeys Related to Their Child's Rare Disorder: A Qualitative Study
S. Lozinsky

206 Exome Sequencing Identifies a Rare Case of Birk-Barel Syndrome Caused by a Mutation in the Paternally Imprinted *KCNK9* Gene
A. Nesbitt

207 CHOPS Syndrome: A Novel Genetic Diagnosis Characterized by Cognitive Impairment and Coarse Facial Features, Heart Defects, Obesity, Pulmonary Involvement, Short Stature and Skeletal Dysplasia
S. Noon

208 Investigation into Inherited Metabolic Disease Clinic Practices for Follow Up of Positive Very Long Chain Acyl-CoA Dehyrogenase Deficiency Newborn Screen Results
I. Novikova

209 The Myelin Disorders Bioregistry Project: A Bioregistry for Patients with Known and Unsolved Genetic Disorders of the White Matter
A. Pizzino

210 Pilot Study of Attention Deficit Hyperactivity Disorder-related Behaviors in a Pediatric Ehlers-Danlos Syndrome-Hypermobility Type Population
C. Reinert

211 A Patient with *PTEN*-associated Macrocephaly and Autism Presenting with Thyroid Follicular Adenomas (Cowden Syndrome)
V. Roberts

212 A Model for a Multidisciplinary Epilepsy Genetics Program
B. Rosen-Sheidley

213 Genotype: Phenotype Correlation for *NF1A* Gene as Part of Microdeletion 1p32.1p31.3 Syndrome
L. Schultz

214 Review of 33 Cases of Clitoromegaly: Causes and Outcomes
M. Setzer

215 Twenty-year Follow-up of Newborn Screening for Patients with Muscular Dystrophy
A. Smith

216 Very Small Familial Microdeletion of 15q11.2 Results in an Atypical Prader-Willi Syndrome Phenotype
J. Stone

217 Anxiety in Adolescents with Neurofibromatosis Type 1
K. Weinand

218 Mutations in *ARID2* Are Associated with Syndromic Intellectual Disabilities
R. Willaert

219 Two Cases of 2p16.3 Microdeletion Including *MSH6* and *FBXO11*: Are Developmental Delays and Other Clinical Features Related?
K. Wolfe Schneider

Pre- and Perinatal

220 Diagnosis of an Unbalanced Fetal Translocation Following Abnormal Cell-free DNA Screening
L. Bagby

221 The Impact of Cystic Fibrosis on Women's Reproductive Decision-making
L. Bokovitz

222 How do Women Make Decisions about Preimplantation Genetic Screening? Sacrifices Made and Factors Considered
S. Cochrane

223 Efficacy of Genetic Testing in Cases of Ambiguous Genitalia Detected on Prenatal Ultrasound
E. Crawford

224 The Value and Impact of Genetic Counseling Risk Assessment
D. Cutillo

225 Newborn Screening Education in the Prenatal Period: New Parent Experiences and Desires
M. Dreon

226 A False Positive Non-invasive Prenatal Screening Result Leads to an Incidental Finding of Translocated Yq Material in a Phenotypically Normal Female
A. Essendrup

227 A Crossroads: Non-invasive Prenatal Screening Microdeletion Syndromes Identified in Products of Conception Samples
M. Maisenbacher

228 Obstetrician and Gynecologist Utilization of the Non-invasive Prenatal Test Expanded Testing Option
S. Mayes

229 Correlation of Occult Maternal Colon Cancer with Serial Non-invasive Prenatal Test Screening Evaluations
K. Murray

230 Transitioning Cell Free DNA Testing for Aneuploidy to a General Pregnancy Population: Preliminary Results of the Rhode Island Experience
G. Palomaki

231 Genetic Conditions in Congenital Diaphragmatic Hernia and Recommendations for Prenatal Testing
E. Partack

232 Amniocentesis Does Not Increase the Risk of Miscarriage in a Screen Positive Population When Performed by an Experienced Practitioner
M. Randall

233 Women's Assessment of Benefit in Pre-Test Genetic Counseling for Non-Invasive Prenatal Testing
C. Rao

234 Newborn Screening Education in the Prenatal Period: Provider Practices and Desired Assistance
S. Rosendahl

235 Cerebellar Hypoplasia Associated with Mutations in the *EIF2B2* Gene
R. Silver

236 Clinical Experience with a Single Nucleotide Polymorphism-based Noninvasive Prenatal Test for 22q11.2 Deletion Syndrome
M. Stosic

237 Exploring Birthparent's Experiences of Creating an Adoption Plan for Their Children with Down syndrome
S. Tawde

238 Whose Y Is It Anyway? Transplantation as a Biological Cause of Noninvasive Prenatal Testing Gender Discrepancies
J. Wardrop

Professional Issues

239 An Exploration of the Roles and Satisfaction Level of Genetic Counselors Working With Newborn Screening
S. Bradley

240 Misconceptions and Psychosocial Issues Raised By Linkage Analysis Completed in 1987: A Case Report
C. Bruha

241 Seekers, Finders, Settlers and Stumblers: Identifying the Career Path for Males in the Genetic Counseling Profession
A. Chen

242 The Evaluation of the Molecular Basis of Disease (EMBoDy) in Clinical Reporting: What Genetic Counselors Need to Know for Counseling and Return of Novel Genetic Etiology Results Identified via Diagnostic Exome Sequencing
K. Farwell Hagman

243 An Exploration of the Nuances of Common Legal Documents Commonly Encountered in Industry-based Employment Settings
S. Gandomi

244 Measuring Awareness and Perceptions of Genetic Counseling in Three Groups: General Population, A Disability Community and a New Parent Community
D. Goldberg

245 Spanish-speaking Medical Interpreters' Understanding of and Attitudes towards Genetics and Genetic Counseling
A. Henshaw - WITHDRAWN

246 The GC on TV: The Absence of a Genetic Counseling Professional in Popular Medical Television Storylines and What We Can Do about It
D. Goldberg

247 Exploring the Impact of Multiplex Cancer Gene Panels on Genetic Counselors: "I Really Didn't See This One Coming."
C. Kielczewski

248 Responsibilities, Competencies and Resources of Genetic Counselors in Management Positions
B. Lubben

249 Provision of Genetic Services: Is It Time to Embrace Social Media?
R. Moore

250 Incidental Misidentification of Constitutional Mismatch Repair Deficiency via Whole Exome Sequencing and its Impact on Management
R. Noss

251 The Role of a Genetic Counselor as Coordinator and Clinical Recruiter in a Study of Hereditary Susceptibility to Lung Cancer
A. Salkowski

252 Addressing Employer Needs by Meeting Employee Needs: Successful Integration of Teleworkers
A. Studinski

253 Effectiveness of Telephone Genetic Counseling for Parkinson Disease and Association with Disease Status and Genotype
J. Verbrugge

254 Systematic Processes to Formalize and Optimize Patient Engagement in a Large Healthcare System
J. Williams

255 Certified Genetic Counselors in Japan: Current Status 2014
Y. Yamanouchi

256 Genetic Test Utilization Review: Moving it Upstream
L. Zetzsche

Professional Issues: Professional Roles

257 Genetic Counselor Workforce Issues: A Survey of Genetic Counselors Licensed in the State of Indiana
S. Cohen

258 What Do Genetic Counselors Who Work at Fetal Centers Do?
M. Dudek

259 Comparing Pharmacy and Genetic Counseling: Education Related to Pharmacogenomics and Attitudes about Roles and Collaboration in Clinical Pharmacogenomics
C. Gilliland – WITHDRAWN

260 The Evolving Partnership between the Clinical and Laboratory Genetic Counselor
S. Stasi

Psychiatry/Neurology

261 The Changing Age of Individuals Seeking Presymptomatic Genetic Testing for Huntington Disease
M. Beyer

262 Detection of Causative Variants Using Multigene Panels in a Pediatric Population with Epilepsy
C. Campbell

263 Complexities of Genetic Counseling for ALS: A Case of Two Distinct Mutations in a Single Patient
K. Dent

264 An Investigation of Neurologists' Perceptions of the Value of Genetic Counselors in the Neurology Clinic
G. Egar

265 Perceptions and Utilization of Genetic Counseling by Adults with Charcot-Marie-Tooth
E. Francisco

266 Planning, Implementation and Evaluation of a New Clinical Simulation: Psychiatric Disease Case
B. Fuller

267 Exploring Physician Perceptions of Psychiatric Genetic Counseling and Conceptual Barriers to Referrals
E. Leach

268 Compound Heterozygosity of Two *MECP2* Deletions with Paternal Inheritance of a Late-truncating Mutation in a Female with Atypical Rett Syndrome
A. Lindy

269 Training to Provide Psychiatric Genetic Counseling: How Does It Impact Recent Graduates' and Current Students' Attitudes towards Individuals with Psychiatric Illness and their Readiness to Provide Genetic Counseling for this Population?
A. Low

270 Perspectives on Genetics Among Individuals with Trichotillomania
L. Nassereddine

271 Novel In-frame Deletion in *GRIA3*: A Case Report
H. Newman

272 An Extension of Our Assessment: Addressing Psychiatric Concerns in Prenatal Genetic Counseling
R. Peralta

273 Next-generation Panel Testing for Neuromuscular Disorders Gives a High Diagnostic Yield in a Clinic-based Population
J. Roggenbuck

274 Clinical Experiences with a *PCDH19*-related Epilepsy Cohort
L. Smith

275 Yield of Clinical Genetic Testing for ALS-associated Mutations in a Tertiary Care Amyotrophic Lateral Sclerosis Clinic
J. Roggenbuck

276 Understanding Psychiatrists' Perceptions Surrounding Psychiatric Genetics and Genetic Counseling Services
H. White

Public Health

277 Public Opinion of Newborn Screening for Disorders with Various Treatment and Intervention Options
M. Bunnell

278 Development of Sickle Cell Trait Notification Process of Newborn Screening Results: A Community Needs Assessment
M. Dreon

279 Effect of Newborn Screening Collection Methods on Concentration of Markers for Newborn Screened Disorders
J. Harashima

280 Who Utilizes Genetic Counseling after Direct-to-consumer Genetic Testing?
D. Koeller

281 Stakeholder Views on Newborn Screening Using Whole Genome Analysis
C. Young

Research Issues

282 Exploring the Process of Decision Making about Participation in Genetic Research on Mental Illness
H. Andrighetti

283 Expectations of False Reassurance in a Genetic Sequencing Cohort
K. Lewis

284 Returning Genomic Research Results to Biobank Participants
E. Winkler

Vendor-Sponsored Presentations

Vendor-Sponsored Presentations are 30-minute presentations given by select vendors in the Vendor Theater located in AEConnect. These presentations are a great way to learn more about a company's products and services in a quick and easy manner. Make the most of your time in the Exhibitor Suite by attending one of the following presentations:

Wednesday, October 21

6:45 pm – 7:15 pm

CancerGene Connect

CancerGene Connect: A Pedigree and Risk Assessment Tool Developed by Genetic Counselors for Genetic Counselors

Megan Frone, MS, CGC

This session will summarize CancerGene Connect (CGC), a cloud-based validated tool for genetic risk assessment and testing. This presentation will include an overview of the program including the updated unlimited pedigree, clinical test tracking, report writing functionalities, mobile office utilities and clinical and research database capabilities of CGC. We will also review published data on time studies and tool validation.

Thursday, October 22

11:45 am – 12:15 pm

Ambry Genetics™

Variant Assessment in the Next Generation Sequencing Age: Addressing the Challenges of Complex Phenotypes and Moderate Risk Genes

Tina Pesaran, MA, MS, CGC

Genes with varying levels of penetrance challenge traditional variant assessment paradigms. In this presentation, we will review Ambry's variant assessment process, describe issues that variable expressivity and reduced penetrance present and discuss how our experience with next generation sequencing has led to a customized algorithm for the assessment of alterations.

12:30 pm – 1:00 pm

Boulder Abortion Clinic

Termination of Pregnancy for Indications of Genetic Disorder and Fetal Abnormality in Advanced Gestations

Warren M. Hern, MD, MP, PhD

The diagnostic categories of fetal anomalies and genetic disorders for patients seen over a period of 35 years will be presented. The components of clinical care for patients seeking this service will be presented, including preoperative evaluation, protocol for management of patients in different stages of pregnancy, operative techniques, postoperative management and evaluation and procedures for grief support.

2:15 pm – 2:45 pm

natera™ Conceive. Deliver.

Carrier Screening for Duchenne Muscular Dystrophy is as Important as Cystic Fibrosis Screening. Learn Why

Libby Valenti, MS, CGC

Duchenne Muscular Dystrophy, the most common fatal genetic disorder diagnosed in childhood, has a ~1/3500 incidence in boys. Broad population carrier screening for Duchenne is newly available. This presentation will provide you with an understanding of why offering Duchenne carrier screening is important and how it can be implemented.

6:45 pm – 7:15 pm

Counsyl

Advanced Technologies and Automation Appreciably Enhance Quality and Accessibility of Expanded Carrier Screening

Shivani Nazareth MS, CGC, Gabriel Lazarin, MS, CGC, Dale Muzzey, PhD

Using next-generation sequencing and custom-built automation, Counsyl is increasing detection rates and expanding the number of mutations identified for complex genes while significantly lowering costs. Based on data from over 400,000 patients, we will discuss how this technology enables cost-effective expanded carrier screening that better serves couples of all ethnicities.

7:30 pm – 8:00 pm

PARABASE GENOMICS

Rapid Diagnostic Testing for Newborns Using Targeted NGS

Julie Rousseau

This session will discuss the benefits of a rapid targeted next-generation sequencing (TNGS) panel, using dried blood spots, for second-tier newborn metabolic and hearing loss screening and its immediate utility for diagnostic testing in the neonatal intensive care unit.

Friday, October 23

11:45 am – 12:15 pm

affymetrix Biology for a better world

FDA-clearance of CMA: Why Do We Care?

Kellie Walden, MS, CGC

While FDA clearance of the first genomic test is a significant milestone for medical genetics, what really matters is its impact on patient care. This presentation will review the validation process, what distinguishes a test with FDA clearance and one diagnostic lab's first year of experience offering the CytoScan® Dx Assay.

12:30 pm – 1:00 pm

myriad WHEN DECISIONS MATTER

1:15 pm – 1:45 pm

QIAGEN

Exploring Exome Sequencing in Pediatrics

Beth Denenberg MS, LCGC

In the Children's Hospital of Philadelphia Genomic Diagnostics Laboratory, we offer clinical exome sequencing for the diagnosis of rare pediatric disease. Within the first year we were able to successfully identify a variety of disease-causing variants. This talk will discuss our analysis process, including the use of the human gene mutation database (HGMD) in the context of clinical cases.

Thank You to Our Sponsors

NSGC Premier Sponsors

PLATINUM

affymetrix
Biology for a better world

AsuraGen®

insight
MEDICAL GENETICS

Quest Diagnostics™

AEC Sponsors

GOLD

Baylor Miraca
Genetics Laboratories

illumina®

INVITAE

SILVER

myriad
WHEN DECISIONS MATTER

natera™
Conceive. Deliver.

Personalis®
Pioneering Genome-Guided Medicine

sequenom
Laboratories

BRONZE

Ambry Genetics

Boulder Abortion Clinic

Counsyl

GeneDx
DNA DIAGNOSTIC EXPERTS

GenPath
The Premier Women's Health Laboratory

Integrated Genetics
LabCorp Specialty Testing Group

EDUCATIONAL GRANT SUPPORTER

Illumina

NSGC Awards and Fellowships

The Jane Engelberg Memorial Fellowship

Examining the Effects of Whole Exome Sequencing (WES) and Utility of Educational Videos to Augment WES Patient Education

Julia Wynn, MS, CGC

NSGC Leadership Awards

Natalie Weissberger Paul National Achievement Award

Barbara Bernhardt, MS, CGC

New Leader

Leslie Bucheit, MS, CGC

New Leader

Katherine Spoonamore, MS, CGC

Strategic Leader

Christina Palmer, PhD, CGC

Outstanding Volunteer

Gillian Hooker, PhD, ScM, LCGC

Outstanding Volunteer

Emily Edelman, MS, CGC

Best Abstract Awards

Best Full Member Abstract Award

Assessment of Complexity among Cancer, Cardiovascular, General Pediatric/Adult, and Prenatal Genetic Counseling at a Single Institute: A Tool to Improve Efficiencies and Help Guide Patient Volumes

Allison Schreiber, MS, CGC

Beth Fine Kaplan Student Abstract Award

Assessing Current Practices in Prenatal Genetic Counseling Regarding a Prenatal Diagnosis of Down Syndrome. Phase II: What Does Client-Centered Counseling Look Like in Practice?

Alex M. Yragui, MS

Cultural Competency Scholarship

Kanchi N. Barfiwala

Michelle Ning

AEC Planning Subcommittee

NSGC expresses its gratitude to these volunteers for their hard work and dedication:

Chair

Lori A.H. Erby, PhD, CGC

Vice Chair

Jason Flanagan, MS, CGC

AEC Subcommittee

Renee Chard, MS, CGC
McKinsey Goodenberger, MS, CGC
Lauren P. Morgenroth, MS, CGC
Andrea Harbison, MS, CGC
Kelly E. Jackson, MS, CGC
Kate Lamvik Loranger, MS, CGC
Kirsty McWalter, MS, CGC
Ana Morales, MS, CGC
Emily Smith, MS, CGC

Abstract Workgroup Chair

Beverly Yashar, PhD, MS, CGC

Abstract Workgroup Vice Chair

Emily Edelman, MS, CGC

Abstract Workgroup

Sharon Aufox, MS, CGC
Melanie Baxter, ScM, CGC
Katie Berrier, MS, CGC
Courtney Berrios, MSc, ScM, CGC
Barb Biesecker, PhD, MS, CGC
Kari Haag Branham, MS, CGC
Deanna Alexis Carere, MA, MS, LGC
Carrie Castonguay, MS, CGC
Kathleen Collins, MS, CGC
Jennifer Czerwinski, MS, CGC
Martha Dudek, MS, LCGC
Kristi K. Fitzgerald, MS, CGC
Sara Fitzgerald-Butt, MS, CGC, LGC
Stephanie Gandomi, MS, CGC, LGC
Erynn Gordon, MS, CGC
Tracey Grant, MS
Carrie Guy, MS, LCGC
Andrea Hanson-Kahn, MS, CGC
Jodie Ingles, GDGC, PhD
Angela Inglis, MSc, CGC, CCGC
Emily James, MS, CGC
Yelena Kemel, MS, ScM, LCGC
Dawn Laney, MS, CGC, CCRC
Erin M Miller, MS, CGC
Sarah Jane Noblin, MS, CGC
Victoria Raymond, MS, CGC, CCRP
Catherine Reiser, MS, CGC
Eric Rosenthal, PhD, ScM, LGC
Thereasa Rich, MS, CGC
Taylor Sale, MS, MEd, LCGC
Kayla M. Sheets, MS, LGC
Sheila Solomon, MS, CGC
Michelle Strecker, MS, CGC
Christopher Tan, MS, CGC
Karen Wain, MS, CGC
Jody Wallace, MS, CGC
Susan Walther, MS, CGC
Elisabeth Wood, MS, CGC

Education Committee Chair

Heather MacLeod, MS, CGC

Education Committee Vice Chair

Emily Edelman, MS, CGC

Education Committee Board Liaison

Sara Riordan, MS, LCGC

Networking Activities and Business Meetings

NSGC Special Interest Group (SIG) Fair

Wednesday, October 21
2:00 pm – 2:30 pm
Room 408/409/410
All AEC attendees are invited to the NSGC SIG Fair to meet with SIG leaders and to learn more about current SIG projects and how you can become involved.

First Time Attendees

AEC 101: A Roadmap to Enhance Your First AEC Experience

Wednesday, October 21
2:00 pm – 3:15 pm
Room 407
Are you a first-time AEC attendee? Make your way to this event to network with other new attendees and learn about the different types of educational sessions available at the AEC.

There will also be a special SIG fair just for first-time attendees and new NSGC members. Meet with SIG leaders at this event devoted specifically to fostering relationships between SIGs and new NSGC members.

Welcome Reception

Wednesday, October 21
6:15 pm – 8:30 pm
Hall A

Make new contacts and greet your friends as you preview the vendors and their services in the Exhibitor Suite. Join your colleagues for this special kickoff to the AEC. Light hors d'oeuvres and a cash bar will be available.

State of the Society Address

Thursday, October 22
9:00 am – 9:45 am
Spirit of Pittsburgh Ballroom

Join President Joy Larsen Haidle, MS, CGC, as she provides an overview of NSGC activities and accomplishments over the past year, reviews NSGC's advocacy efforts and strategic initiatives and provides highlights from 2015.

ABGC Annual Business Meeting

Thursday, October 22
1:00 pm – 1:30 pm
Spirit of Pittsburgh Ballroom

ACGC Presentation

Thursday, October 22
1:30 pm – 2:00 pm
Spirit of Pittsburgh Ballroom

NSGC Annual Business Meeting

Friday, October 23
2:15 pm – 3:00 pm
Spirit of Pittsburgh Ballroom

Incoming Presidential Address

Saturday, October 24
10:45 am – 11:15 am
Spirit of Pittsburgh Ballroom

Welcome NSGC President-Elect Jehannine Austin, MSc, PhD, CGC, CCGC, as she introduces herself to NSGC members and outlines her vision for NSGC and the genetic counseling profession in 2016.

Meals and Breaks

Continental breakfast will be served Wednesday through Saturday outside of the Spirit of Pittsburg Ballroom from 7:00 am – 8:00 am.

Concessions

Concessions will be located in the Exhibitor Suite on Thursday and Friday. Concessions will also be available in the West Atrium on Wednesday and Saturday.

Refreshment Breaks

Thursday, October 22
9:45 am – 10:00 am
3:00 pm – 3:15 pm

Friday, October 23
9:30 am – 9:45 am
4:30 pm – 4:45 pm
6:15 pm – 6:30 pm

Saturday, October 24
9:30 am – 9:45 am

All refreshment breaks are sponsored by:

Baylor Miraca Genetics Laboratories

Join Us at the Booths Below for a Special Treat

Wednesday, October 21
11:00 am – 3:00 pm
Invitae – Booth #601
Counsyl – Booth #631
Quest Diagnostics – Booth #203

Thursday, October 22
11:30 am – 3:00pm
Ambry Genetics – Booth #720
Quest Diagnostics – Booth #203

Thursday, October 22
6:00 pm – 8:00 pm
Invitae – Booth #601

Friday, October 23
11:30 am – 4:30 pm
Invitae – Booth #601

**Limited quantities available on a first-come, first-served basis*

AEConnect

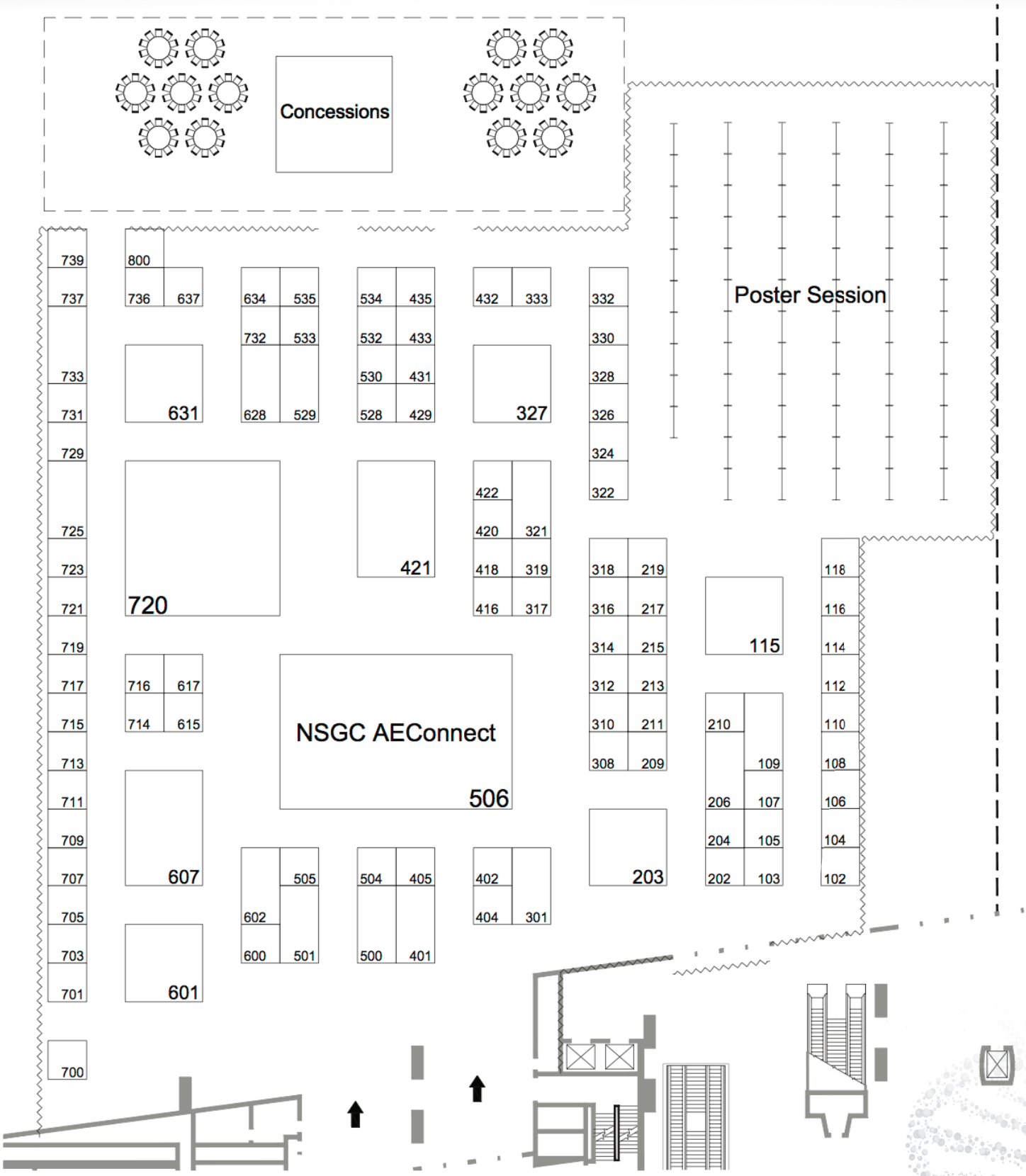
Located in the Exhibitor Suite, Hall A

Open Wednesday - Friday during Exhibitor Suite hours

AEConnect is designed to help you network with your professional community. While in the Exhibitor Suite, stop by to view available job postings, learn more about our social media efforts, engage with NSGC's Special Interest Groups, take in a sponsored presentation in the Vendor Theatre, and meet up with colleagues and friends.

Exhibitor Directory by Company Name

Exhibitor Suite Map



Exhibitor Index

Abcodia
Booth #534
Phone: 857.245.7050
Fax: 844.236.6157
contactus@abcodia.com
www.therocatest.com

Abcodia is a specialist company engaged in developing biomarkers for the early detection of cancer. The company's first commercial product will be ROCA®, a test that determines the likelihood of a woman having ovarian cancer.

Affymetrix, Inc.
Booth #402
Phone: 408.731.5000
Fax: 408.731.5380
sales@affymetrix.com
www.affymetrix.com

Affymetrix, your partner for pediatric genetics, offers the only FDA-cleared whole genome blood test kit, CytoScan® Dx Assay, proven to help diagnose developmental delays and intellectual disabilities in children.

AliveAndKickn
Booth #739
Phone: 201.694.8282
robin@aliveandkickn.org
www.aliveandkickn.org

AliveAndKickn is a hereditary cancer foundation whose mission is to improve the lives of individuals and families affected by Lynch Syndrome and associated cancers through research, education and screening.

Allele Diagnostics
Booth #713
Phone: 844.255.3532
Fax: 509.232.5779
info@allelediagnostics.com
www.allelediagnostics.com

Allele Diagnostics provides exceptional microarray and cytogenetic testing services. Our laboratory is highly experienced in performing microarray, karyotyping, and FISH testing and has optimized performance for high-quality and rapid results.

Alpha-1 Foundation
Booth #723
Phone: 877.228.7321
info@alphaone.org
www.alpha1.org

The Alpha-1 Foundation is committed to finding a cure for Alpha-1 Antitrypsin Deficiency and to improving the lives of people affected by Alpha-1 worldwide.

Ambry Genetics
Booth #720
Phone: 949.900.5500
Fax: 949.900.5501
info@ambrygen.com
www.ambrygen.com

Ambry Genetics is CAP-accredited and CLIA-certified. Together with its subsidiary Progeny Genetics, Ambry leads in clinical genetics diagnostics and software solutions. Ambry is known for unparalleled reporting, securely sharing data, and responsibly applying new technologies.

American Board of Genetic Counseling (ABGC)
Booth #105
Phone: 913.895.4617
Fax: 913.895.4652
info@abgc.net
www.ABGC.net

The American Board of Genetic Counseling (ABGC) is the credentialing organization for the genetic counseling profession in North America. ABGC certifies and recertifies qualified genetic counseling professionals and promotes the profession's ongoing growth and development.

American Thrombosis & Hemostasis Network
Booth #204
Phone: 800.360.2846
Fax: 847.572.0967
info@athn.org
www.athn.org

The American Thrombosis and Hemostasis Network (ATHN) is a non-profit organization committed to advancing and improving care for individuals affected by bleeding and thrombotic disorders. ATHN manages a national database of patient health data that can be used to improve care and support vital research.

Ariosa Diagnostics
Booth #628
Phone: 408.229.7500
www.ariosadx.com

Ariosa Diagnostics, Inc. is a leading global molecular diagnostics company committed to improving overall patient care by developing and delivering innovative, affordable and widely-accessible testing services through their CLIA laboratory. Tests are fully validated to CLIA requirements by rigorous and comprehensive methodologies to ensure health care practitioners and patients can be confident in the test's performance. Ariosa has developed leading-edge technologies to perform a directed analysis of cell-free DNA in blood. Ariosa is located in San Jose, California and was acquired by Roche in 2015.

ARUP Laboratories
Booth #505
Phone: 801.583.2787
Fax: 801.584.5209
www.aruplab.com

ARUP, a nonprofit enterprise of the University of Utah, has a full-service genetics laboratory offering testing in maternal serum screening and molecular, cyto, and biochemical genetics, with experience in sequencing, FISH, microarray and biochemical assays.

Association of Public Health Laboratories
Booth #118
Phone: 240.485.2745
Fax: 240.485.2700
info@aphl.org
www.aphl.org/NBS

APHL represents state, county and city government laboratories that perform 97% of newborn screening and genetic testing in the US, saving or improving the lives of more than 12,000 babies each year.

Asuragen
Booth #501
Phone: 512.681.5200
Fax: 512.681.5201
asuragen@asuragen.com
www.asuragen.com

Asuragen offers innovative PCR-based fragile X testing, including AmplideX® PCR and mPCR assays for CGG size and methylation status, and Xpansion Interpreter®, for AGG interruption status, which refines the risk of expansion upon maternal transmission.

Baby's First Test
Booth #328
Phone: 202.966.5557
Fax: 202.966.8553
Info@BabysFirstTest.org
www.BabysFirstTest.org

Baby's First Test is a health education program focused on increasing awareness and knowledge about newborn screening and its system. The sites, BabysFirstTest.org and Spanish.BabysFirstTest.org, inform and empower families and healthcare providers.

Basser Center for BRCA
Booth #215
Phone: 215.662.2748
Fax: 215.243.2322
basserinfo@uphs.upenn.edu
www.basser.org

The Basser Center for BRCA of the University of Pennsylvania aims to deliver cutting edge research in basic and clinical sciences to advance the care of individuals who carry BRCA mutations.

Batten Disease Support and Research Association
Booth #330
Phone: 614.973.6011
info@bdsra.org
www.bdsra.org

BDSRA is dedicated to funding research for treatments and cures, providing family support services, advancing education, raising awareness and advocating for legislative action. Founded in 1987 by parents seeking to build a network for those diagnosed with Batten disease, BDSRA is now the largest support and research organization dedicated to Batten disease in North America. BDSRA believes that to effectively unravel the mysteries of Batten disease, the worlds of medical science, research, and families must work together toward a common goal: discover treatments and cures while assuring a better quality of life for those living with the disease.

Baylor Miraca Genetics Laboratories
Booth #607
Phone: 713.798.6555
Fax: 713.798.2787
genetictest@bcm.edu
www.bmgl.com

Baylor Miraca Genetics Laboratories offer a broad range of diagnostic genetics tests. By building on our institution's strengths in research and discovery, we aim to provide quality genetic testing services relevant to 21st century medicine.

BioMarin Pharmaceutical, Inc.
Booth #324
Phone: 415.506.6700
Fax: 415.382.7889
www.bmrn.com

BioMarin develops and commercializes innovative biopharmaceuticals for serious diseases and medical conditions. Approved products include the first and only medications for PKU and LEMS, and the first and only enzyme replacement therapies for MPS I, MPS VI and Morquio A syndrome.

Blueprint Genetics
Booth #729
Phone: 650.452.9340
Fax: 650.636.9779
support.us@blueprintgenetics.com
www.blueprintgenetics.com

Blueprint Genetics is a genetics company based in Helsinki and San Francisco. We are a team of cardiologists, geneticists, bioinformaticians and DNA biologists providing comprehensive and high-quality genetic diagnostics with next-generation sequencing (NGS).

Boulder Abortion Clinic
Booth #416
Phone: 303.447.1361
Fax: 303.447.0020
bachern@msn.com
www.drhern.com

At Boulder Abortion Clinic, Dr. Hern offers the safest possible abortion care and termination of pregnancies for fetal anomalies or other medical indications. These specialized services are provided in a confidential and comfortable outpatient setting.

Bright Pink
Booth #719
Phone: 312.787.4412
Fax: 312.787.4414
brightpink@brightpink.org
www.brightpink.org

Bright Pink is a national non-profit on a mission to save lives from breast and ovarian cancer by empowering women to live proactively at a young age through risk assessment, reduction, and early detection.

CancerGene Connect
Booth #110
Phone: 214.862.1957
richard@synappslabs.com
www.cancergeneconnect.com

CancerGene Connect is a genetic counseling platform originally developed by UT Southwestern Medical Center and used to process over 12,000 patients to date. Includes remote FHQ, risk assessment, pedigree, family letters, follow-up tools, and more.

Center for Fetal Diagnosis and Treatment at The Children's Hospital of Philadelphia
Booth #433
Phone: 800.IN.UTERO (800.468.8376)
Fax: 215-590-2447
fetalsurgery@email.chop.edu
www.fetalsurgery.chop.edu

Experts in prenatal treatment, and home of the first specialized delivery unit exclusively for families carrying a fetus with a congenital anomaly, since 1995 we have provided care for more than 18,000 pregnancies.

Center for Jewish Genetics
Booth #731
Phone: 312.357.4718
jewishgeneticsctr@juf.org
www.jewishgenetics.org

The mission of the Center for Jewish Genetics is to create a healthier, more informed community by educating healthcare professionals, clergy, and particularly individuals of Jewish descent, about genetic disorders, hereditary cancers and the importance of genetic screening and counseling.

Children's Hospital Colorado - Denver Genetics Laboratory
Booth #316
Phone: 720.777.0500
Fax: 720.777.7886
amber.brand@childrenscolorado.org
www.denvergenetics.org

Denver Genetic Laboratories aims to provide Complete Genetic Solutions™ for genetic disorders, to contribute to a better tomorrow for patients, families and healthcare providers. We specialize in three different areas through our Molecular, Biochemical and Mitochondrial genetic laboratories. Our laboratories provide service to all demographics as long as they have a referral.

Children's Hospital of Pittsburgh of UPMC
Booth #714
Phone: 412.692.7372
rarecare@chp.edu
www.chp.edu

The Center for Rare Disease Therapy at Children's Hospital of Pittsburgh of UPMC consists of international experts focused on treating children with rare diseases, defined by leading standards of care, pioneering protocols, and individualized services.

City of Hope National Med Center - Outreach Laboratories
Booth #420
Phone: 888.826.4362
Fax: 626.301.8142
cmdl@coh.org
www.cmdl.cityofhope.org

The City of Hope Outreach Laboratories utilizes the latest testing methodologies to diagnose diseases and is supported by expert pathologists who provide excellent clinical interpretation.

Claritas Genomics
Booth #418
Phone: 617.553.5800
Fax: 617.553.5842
info@claritasgenomics.com
www.claritasgenomics.com

Claritas Genomics serves children affected with complex genetic disorders by providing timely and accurate results, resolving families' long search for answers. By combining clinical expertise of the world's best pediatric specialists with innovative platform solutions, Claritas is working to improve patient care and enable new discoveries. We are committed to the highest quality and accessibility of information and our interpretive services and unique approach to reporting set the standard for reliably and clearly communicating genetic information. Now is the time to integrate genomics into clinical practice to inform, guide and improve medical treatment for kids around the world.

ClinGen
Booth #211
clingen@clinicalgenome.org
www.clinicalgenome.org

The Clinical Genome Resource (ClinGen) is an NIH-funded resource dedicated to building an authoritative central resource that defines the clinical relevance of genomic variants for use in precision medicine and research.

Color Genomics
Booth #333,432
www.getcolor.com

CombiMatrix
Booth #615
Phone: 949.753.0624
Fax: 949.753.1504
info@combimatrix.com
www.combimatrix.com

CombiMatrix provides valuable molecular diagnostic solutions and comprehensive clinical support to foster the highest quality in patient care. CombiMatrix specializes in prenatal diagnostics, miscarriage analysis for recurrent pregnancy loss, pediatric genetics and pre-implantation genetic screening.

Connective Tissue Gene Tests
Booth #528
Phone: 484.244.2900
Fax: 484.244.2904
inquiries@ctgt.net
www.ctgt.net

Connective Tissue Gene Tests (CTGT) specializes in molecular diagnostic testing for inherited genetic disorders. CTGT offers a large test menu of over 1,000 NGS, sanger sequencing, deletion/duplication and comprehensive tests, and is continuously growing.

Cord Blood Registry
Booth #705
Phone: 888.CORDBLOOD (888.267.3256)
Fax: 650.635.1429
dduarte@cordbloood.com
www.cordblood.com

At Cord Blood Registry, our mission is to enable breakthrough medical treatments for more families by significantly advancing the real-life clinical applications of newborn stem cells.

Counsyl
Booth #631
Phone:888.COUNSYL (888.268.6975)
support@counsyl.com
www.counsyl.com

Counsyl is a health technology company that offers DNA screening at key times in people's lives-for those starting a family and for those at risk for inherited cancer. At Counsyl, every screen includes a session with a board-certified genetic counselor, because we believe that access to information extends beyond affordability.

Emory Genetics Laboratory
Booth #725
Phone: 404.778.8499
Fax: 404.778.8559
egl.marketing@emory.edu
www.geneticslab.emory.edu

Emory Genetics Laboratory (EGL) offers a comprehensive menu of molecular, biochemical, and cytogenetics testing (clinical and research). EGL leadership includes board-certified laboratory directors and the lab itself has 45 years of experience providing diagnostic services.

Exhibitor Index *(continued)*

Fulgent Diagnostics
Booth #617
Phone: 626.350.0537
Fax: 626.454.1667
Info@fulgentdiagnostics.com
www.fulgentdiagnostics.com

Fulgent Diagnostics, a CLIA certified high complexity molecular diagnostics lab, offers 4,600+ single gene tests, 170+ preset panels, including a clinical exome panel. Most importantly, Fulgent Diagnostics provides flexibility, high-quality testing, and affordable pricing.

FORCE: Facing Our Risk of Cancer Empowered
Booth: #639
info@facingourrisk.org
www.facingourrisk.org

FORCE is a national nonprofit dedicated to fighting hereditary breast and ovarian cancer (HBOC). With over 50 outreach groups throughout the US, FORCE provides support, education, awareness, advocacy and research on behalf of anyone affected by HBOC.

Geisinger Health System
Booth #405
Phone: 570.214.6918
gbmccluskey@geisinger.edu
www.geisinger.org

The Genomic Medicine Institute partners with patients, health care providers and researchers worldwide to enhance the quality of life through research, education and clinical care innovation in genomic medicine.

Gene by Gene
Booth #529
Phone: 731.474.2401
info@genebygene.com
www.genebygene.com

Gene by Gene is a CAP/CLIA approved laboratory with a product menu spanning clinical genetic testing, genealogy, gene sequencing and research partnerships. Included is expanded carrier screening that incorporates a greater number of minority mutations, and an extensive Sephardic Jewish disease offering.

GeneDx
Booth #115
Phone: 301.519.2100
Fax: 301.519.2892
GeneDx@GeneDx.com
www.GeneDx.com

GeneDx specializes in genetic testing for inherited disorders, offering sequencing and deletion/duplication testing for cardiology, mitochondrial, neurological, inherited cancer, prenatal and other rare genetic disorders. GeneDx also offers whole exome sequencing, next-generation and microarray-based testing.

Genesis Genetics Institute
Booth #404
Phone: 313.579.9650
Fax: 313.544.4006
coordinator@genesisgenetics.org
www.genesisgenetics.org

Genesis Genetics is the pioneer of pre-implantation testing of embryos for genetic abnormalities. Genesis started as a lab performing pre-implantation genetic diagnosis and has grown to include pre-implantation genetic screening and other genetic testing services.

GeneTests.org
Booth #206
Phone:888.729.1204
genetests@genetests.org
www.genetests.org

GeneTests is an online medical genetics information resource with capability to search by test, disorder or gene. GeneTests searches retrieve links to GeneReviews™ chapters, other online resources and genetic testing information.

Genome Magazine
Booth #709
Phone: 972.905.2920
smcclure@bigsciencemedia.com
www.genomemag.com

Genome covers the personalized medicine stories of today and the breakthroughs of tomorrow, empowering readers to make informed health decisions that will help them live better longer.

GenPath Women's Health
Booth #208
Phone: 800.633.4522
info@genpathdiagnostics.com
www.genpathdiagnostics.com

GenPath Women's Health, a division of BioReference Laboratories, specializes in the diagnostic needs of the OBGYN and related subspecialties. GenPath offers a full-service test menu that includes cytology, pathology, infectious disease, prenatal/maternal risk assessment, carrier testing, pregnancy thrombophilia and a comprehensive suite of inherited cancer testing.

Genzyme, a Sanofi company
Booth #707
Phone: 617.768.9400
www.genzyme.com

Genzyme discovers and delivers transformative therapies for patients with rare and special unmet medical needs, providing hope where there was none before.

Good Start Genetics
Booth #332
Phone: 617.714.0828
cmurphy@goodstartgenetics.com
www.goodstartgenetics.com

Good Start Genetics is a commercial-stage molecular genetic information company that benefits doctors and patients by setting the new gold standard for routine genetic carrier screening for inherited diseases. We conduct genetic diagnostic carrier testing for the reproductive market. Our clinical molecular diagnostics laboratory is CLIA and CAP certified.

Greenwood Genetic Center
Booth #202
Phone: 888.442.4363 (GGCGENE)
www.GGC.org

The Greenwood Genetic Center is a nonprofit institute organized to provide clinical genetic services, diagnostic laboratory testing, educational resources, and research in the field of medical genetics. Our laboratory offers biochemical, cytogenetic, and molecular testing.

Horizon Pharma
Booth #103
Phone: 224.383.3000
Fax: 224.383.3001
info@horizonpharma.com
www.horizonpharma.com

Horizon Pharma is a specialty biopharmaceutical company focused on improving patients' lives by identifying, developing, acquiring and commercializing differentiated and accessible medicines that address unmet medical needs. The company markets seven medicines through its orphan, primary care and specialty business units. Horizon's global headquarters are in Dublin, Ireland.

Illumina
Booth #500
Phone: 858.202.4500
Fax: 858.202.4545
info@illumina.com
www.illumina.com

Illumina serves customers in a broad range of markets, enabling the universal adoption of genomics solutions in research and clinical settings.

Insight Medical Genetics
Booth #308
Phone: 312.981.4400
Fax: 312.981.4404
info@insightmedicalgenetics.com
www.insightmedicalgenetics.com

Insight Medical Genetics is an integrated clinical and laboratory practice providing preconception, prenatal, and hereditary cancer risk counseling as well as screening and diagnostic testing for a range of genetic conditions with particular capabilities to handle prenatal cases and specimens.

Integrated Genetics
Booth #301
Phone: 800.848.4436
www.integratedgenetics.com

Integrated Genetics is a leading provider of reproductive genetic testing services. With an expansive menu of complex tests and technologies, Integrated Genetics spans the continuum of care from prenatal diagnostics to the largest commercial genetic counseling network in the laboratory industry.

GENPATH

The Premier Women's Health Laboratory

Make sure to visit our exhibit **booth #208** to discuss:

- Hereditary Cancers
- Pan-Ethnic Carrier Screening
- Non-Invasive Prenatal Testing
- Joining the CancerCare Fundraiser
- How to Enter Our Raffle

481 Edward H Ross Drive | Elmwood Park, NJ 07407 | 800 633 4522 tel | 201 345 7152 fax | www.genpath.com

Exhibitor Index *(continued)*

International Institute for the Advancement of Medicine
Booth #108
Phone: 732.661.2364
Fax: 732.661.2527
www.iiam.org

IIAM is the world-leading provider of freshly recovered, non-transplantable, healthy and diseased, human organs and tissues authorized for medical research, education and development.

Invitae
Booth #601
Phone: 415.374.7782
clinical@invitae.com
www.invitae.com

Invitae, a genetic information company, is aggregating the world's genetic tests into a single service with better quality, faster turnaround time and a lower price than most single-gene diagnostic tests today.

John Hopkins Center for Fetal Therapy
Booth #736
Phone: 844.JHFETAL (844.543.3825)
Fax: 410.614.1617
fetalinstitute@jhmi.edu
www.hopkinsmedicine.com/fetal-therapy

Johns Hopkins Center for Fetal Therapy provides state-of-the art treatment for complex fetal conditions including twin-twin-transfusion syndrome, spina bifida, congenital diaphragmatic hernia, urinary tract obstruction, fetal tumors
and more.

Kaiser Genetics- Northern California
Booth #106
www.genetics.kp.org

Practice what you believe, practice at Kaiser Permanente! Kaiser Genetics is the employer of choice for over 70 genetic counselors in Northern California.

Laboratory for Molecular Medicine, Partners HealthCare Personalized Medicine
Booth #213
Phone: 617.768.8500
Fax: 617.768.8513
lmm@partners.org
www.partners.org/personalizedmedicine

The Laboratory for Molecular Medicine, CLIA-certified molecular diagnostic laboratory within Partners HealthCare, translates genetic discoveries into clinical tests using next generation sequencing technologies. Testing areas include disease-targeted panels, clinical genome and exome sequencing with interpretation services.

Mayo Medical Laboratories
Booth #533
Phone: 800.533.1710
Fax: 507.284.1759
mml@mayo.edu
www.MayoMedicalLaboratories.com

Mayo Medical Laboratories provides comprehensive testing and unparalleled expertise in laboratory genetics. Over 35 board-certified geneticists and genetic counselors at Mayo Clinic assist in appropriate test selection and interpretation of results.

MEDomics, LLC
Booth: #738
Phone: 626.804.3646
Fax: 626.804.3648
contact@medomics.com
www.medomics.com

MEDomics is a privately held genomics firm that performs genostics (highly analytical molecular diagnostics of the huge amount of genomic DNA sequence data generated). MEDomics was founded in 2008 with the mission to utilize the transforming power of NextGen DNA sequencing to provide mutation expert-based diagnosis (MED) of a patient's genome and to partner with the referring physician to actuate personalized treatment (pMED).

MNG Laboratories
Booth #701
Phone: 678.225.0222
Fax: 678.225.0212
jparker@mnglabs.com
www.mnglabs.com

MNG provides expert diagnostics through clinical services, biochemical testing and Next Generation Sequencing. Our panels are the most cost effective and comprehensive available, particularly for cellular energetics, muscular dystrophies, and epilepsy. A focus is to provide rapid sequencing /metabolic diagnostics.

MotherToBaby Pregnancy Studies Conducted by OTIS
Booth #326
Phone: 877.311.8972
Fax: 858.246.1710
otisresearch@ucsd.edu
www.pregnancystudies.org

MotherToBaby, a service of the non-profit Organization of Teratology Information Specialists (OTIS), is dedicated to providing evidence-based information to mothers, healthcare professionals, and the general public about medications and other exposures during pregnancy and while breastfeeding. MotherToBaby Pregnancy Studies conducted by OTIS is currently evaluating the effects to the fetus from various diseases and the safety of medications used to treat them during pregnancy.

Mount Sinai Genetic Testing Laboratory
Booth #312
Phone: 212.241.7518
Fax: 212.241.0139
www.mssm.edu/genetictesting

Mount Sinai Genetic Testing Laboratory offers a comprehensive testing menu including molecular, cytogenetic and biochemical analyses in our CLIA-certified, NY state-approved and CAP-accredited facility. Our team provides superior service and state-of-the art testing.

Myriad Genetic Laboratories, Inc.
Booth #421
Phone: 801.746.6528
cscomments@myriad.com
www.myriad.com

Myriad Genetics is a leading molecular and companion diagnostics company dedicated to making a difference in patients' lives through the discovery and commercialization of transformative products that assess a person's risk of developing disease, aid in a timely and accurate diagnosis, determine the risk of disease progression and recurrence and guide personalized treatment decisions.

Natera, Inc.
Booth #102, 104, 327
Phone: 650.249.9090
info@natera.com
www.natera.com

Announcing the Panorama™ prenatal test-the comprehensive and accurate non-invasive prenatal test (NIPT) for aneuploidies of chromosomes 21,18, 13, X and Y.

National Abortion Federation Hotline Fund
Booth #703
Phone: 800.772.9100
www.prochoice.org

The mission of the National Abortion Federation is to ensure safe, legal, and accessible abortion care, which promotes health and justice for women.

NextGxDx
Booth #429
Phone: 615.861.2641
dkauke@nextgxdx.com
www.nextgxdx.com

NextGxDx improves genetic test ordering for the GC community with its two solutions. GeneSource is a comprehensive and easy-to-use tool to search and compare genetic tests. GeneConnect provides advanced ordering/reporting tools to support genetic testing UM efforts.

NIH Genetic Testing Registry /ClinVar/ MedGen
Booth #711
gtr@ncbi.nlm.nih.gov
www.ncbi.nlm.nih.gov/guide/genetics-medicine

The National Center for Biotechnology Information (NCBI) at NIH advances science and health by providing access to biomedical and genomic information. Resources for medical genetics include MedGen, the NIH Genetic Testing Registry (GTR®) and ClinVar.

NSGC Prenatal SIG
Booth #637
Phone: 713.486.2292
Fax: 713.383.1479
blair.k.stevens@uth.tmc.edu
www.nsgc.org/page/prenatal-counseling-sig

The Prenatal SIG was created to unite genetic counselors working or performing research in the prenatal setting. Membership benefits include networking with prenatal colleagues, access to valuable resources and educational opportunities.

at the intersection of humanity and technology, there is insight.

an informed choice for prenatal testing

At Insight Medical Genetics (IMG), we offer a unique selection of prenatal screening and diagnostic tests to providers nationwide through our renowned send-in laboratories.

a different kind of lab experience

Our licensed and board-certified genetic counselors work closely with our laboratory staff to produce comprehensive test results in rapid time, so you can stay focused on your patient.

work with insight

To learn more about our send-in laboratories and available tests, visit insightmedicalgenetics.com/lab-services

visit us at booth #308

insight™
MEDICAL GENETICS

Exhibitor Index *(continued)*

Oregon Reproductive Medicine
Booth #535
www.oregonrepoductivemedicine.org

Parabase Genomics
Booth #715
Phone: 857.288.0838
Fax: 866.604.9369
info@parabasegenomics.com
www.parabasegenomics.com

Parabase Genomics is committed to improving neonatal care through the development of comprehensive early diagnostics of inherited disorders that will help physicians inform treatment decisions based on an individual patient's molecular profile.

Pathway Genomics
Booth #321
Phone: 858.450.6600
Marketing@pathway.com
www.pathway.com

Founded in 2008, Pathway Genomics is a clinical diagnostic and mobile healthcare technology company providing services worldwide. We offer genetic testing for multiple specialties including hereditary cancers, pharmacogenomics, and general health & wellness testing.

PC PAL
Booth #733
Phone: +33 1 69 53 46 20
Fax: +33 1 69 53 69 81
conf@pcpal.eu
www.pcpal.eu

PC PAL, an international medical specialist software company, presents PedigreeXP. This unique interactive drawing tool facilitates recording and interpretation of pedigrees. PC PAL also provides modules for integration into medical records.

PerkinElmer Labs
Booth #422
Phone: 855.PKI.LAB1 (855.754.5221)
www.nflabs.com

PerkinElmer is a global company committed to healthier pregnancies, healthier babies and healthier families. PerkinElmer Labs and our partners provide a comprehensive portfolio of products and services that include the latest advances that range from biochemical screening for aneuploidy and a first of its kind screening test for early onset preeclampsia, to non-invasive prenatal testing (NIPT) and cord blood and tissue banking from ViaCord.

Personalis, Inc.
Booth #602
Phone: 650.752.1300
Fax: 650.752.1301
info@personalis.com
www.personalis.com

Personalis is pioneering genome-guided medicine utilizing the latest commercial sequencing tools and its proprietary ACE Platform technology to provide end-to-end advanced genomic research and diagnostics services for inherited diseases and cancer.

PreventionGenetics
Booth #109
Phone: 715.387.0484
Fax: 715.384.3661
clinicaldnatesting@preventiongenetics.com
www.preventiongenetics.com

PreventionGenetics is a leader in providing comprehensive clinical DNA testing offering next-generation sequencing, Sanger sequencing and deletion/duplication testing via array CGH for over 1200 genes. PreventionGenetics is CAP/CLIA-accredited.

Proband, The Children's Hospital of Philadelphia
Booth #732
Phone: 267.426.7522
Fax: 215.590.5245
probandapp@chop.edu
www.probandapp.com

Proband is an iPad application designed to replace paper for drawing pedigrees during family history interviews. Proband uses intuitive gestures to make creating pedigrees fast and efficient. Check out our new features and functionality and the Proband Connect server component.

Progenity
Booth #322
Phone: 855.293.2639
Fax: 760.268.0771
events@progenity.com
www.progenity.com

Progenity is a molecular diagnostics company that provides specialized testing services for women and children. We partner with clinicians to offer patients high-quality tests with actionable results that enable informed medical decisions.

Progeny Genetics, LLC
Booth #716
Phone: 800.776.4369
Fax: 888.584.1210
mbrammer3@gmail.com
www.progenygenetics.com

Progeny is now offering a cloud-based application for a nominal fee. Includes integrated risk modeling, patient screening, triage family history questionnaires, and the ability to integrate with your EMR. New iPad app also available.

QIAGEN Bioinformatics
Booth #600
Phone: 800.305.0670
info@biobase-international.com
www.qiagenbioinformatics.com

QIAGEN Bioinformatics is powered by CLC bio, Ingenuity, and BIOBASE. We offer bioinformatics software tools for next generation sequencing (NGS) data analysis and interpretation. Our solutions are designed to be universal, so you can mix and match the technologies best suited to your needs.

Quest Diagnostics
Booth #203
Phone: 866.MYQUEST (866.697.8378)
www.QuestDiagnostics.com

Quest Diagnostics, the world's leading provider of diagnostic testing, information and services, offers a comprehensive genetics testing menu including prenatal and neonatal, oncology, neurology and endocrinology. We empower health with diagnostic insights.

Ravgen
Booth #737
Phone: 410.715.2111
Fax: 410.715.2119
ema@ravgen.com
www.ravgen.com

Ravgen specializes in noninvasive prenatal testing on fetal DNA at a diagnostic level. A safe blood sample from the pregnant woman can test for single gene disorders, chromosomal abnormalities, and paternity.

Recombine
Booth #504
www.recombine.com

Recombine was founded by experts in fertility and reproductive genetics. We offer CarrierMap, a comprehensive carrier screen for over 200 genetic conditions, and FertilityMap, a complete fertility genetic assessment for infertility. From sample collection to genetic counseling, we manage the entire genetic testing process. It is genetic testing, simplified.

Recordati Rare Diseases
Booth #116
Phone: 908.236.0888
Fax: 908.236.0028
info@recordatirarediseases.com
www.recordatirarediseases.com

Recordati Rare Diseases' (RRD) mission is to partner with patients, healthcare providers, advocacy, and industry to make products available to treat rare diseases. RRD is a member of the Recordati Group, which includes Recordati and Orphan Europe.

Reproductive Genetic Innovations
Booth #530
Phone: 847.400.1515
Fax: 847.400.1516
info@rgipgd.com
www.rgipgd.com

Reproductive Genetic Innovations (RGI) is a world-renowned provider of pre-implantation genetic diagnosis and screening (PGD and PGS), offering testing for single gene disorders, chromosomal rearrangements and aneuploidy by next-generation sequencing (NGS), array CGH and FISH.

Reprogenetics
Booth #219
Phone: 973.436.5000
Fax: 973.710.4238
www.reprogenetics.com

Reprogenetics LLC is a pioneer in the field of pre-implantation genetic diagnosis (PGD). Genetic counseling is provided for all services including aneuploidy, translocation and single gene disorders.

Seattle Children's Hospital
Booth #107
Phone: 206.987.3361
Fax: 206.987.3840
plugs@seattlechildrenshospital.org
www.seattlechildrenshospital.org

A resource for practical & sustainable utilization management solutions through the PLUGS collaborative network of labs.

Sequenom Laboratories
Booth #401
www.sequenom.com

Sequenom Laboratories, a molecular diagnostics laboratory dedicated to improving patient care, commercialized the first noninvasive prenatal test for pregnant woman at increased risk. Through a routine blood draw, MaterniT21™ PLUS laboratory-developed test analyzes and reports clinically relevant fetal chromosomal abnormalitie, including the core trisomies 21, 18, and 13, as well as trisomies 16 and 22; fetal sex aneuploidies and select microdeletions.

Sharsheret
Booth #532
Phone: 866.474.2774
Fax: 201.837.5025
info@sharsheret.org
www.sharsheret.org

Sharsheret supports women and families, of all Jewish backgrounds, living with and at high genetic risk for breast or ovarian cancer at every stage – before, during, and after diagnosis.

Shire
Booth #717
Phone: 781.482.9222
www.shire.com

Shire enables people with life-altering conditions to lead better lives. Our strategy is to focus on developing and marketing innovative specialty medicines to meet significant unmet patient needs. We focus on providing treatments in rare diseases, neuroscience, gastrointestinal and internal medicine and are developing treatments for symptomatic conditions treated by specialist physicians in other targeted therapeutic areas, such as ophthalmics.

Simons Variation in Individuals Project (Simons VIP)
Booth #112
Phone: 855.329.5638
Fax: 570.214.7342
coordinator@simonsvipconnect.org
www.simonsvipconnect.org

Simons VIP is a family-support community and research initiative aimed at better understanding the medical, learning, and behavioral features of individuals with genetic changes associated with autism spectrum disorder and developmental delay.

SimulConsult
Booth #317
Phone: 617.879.1670
Fax: 617.849.5993
feldman.lynn@simulconsult.com
www.simulconsult.com

SimulConsult's® Genome-Phenome Analyzer® provides labs and clinicians fast, reliable genome interpretation and reporting in the clinical context. Also offered are phenotype collection tools integratable with EHRs and LIMs, which generates robust letters of medical necessity.

Southwestern Women's Options
Booth #217
Phone: 505.242.7512
Fax: 505.242.0540
boyd02@covad.net
www.southwesternwomens.com

Curtis Boyd, MD owned clinics provide a full range of medical and surgical abortion services. The Albuquerque office specializes in third trimester abortion care and offers a unique fetal indications program geared to the special needs of the patient and her family.

St.Jude Children's Research Hospital
Booth #643
Phone: 901.595.2339
Fax: 866.833.0113
christa.brown@stjude.org
www.stjude.org

St. Jude Children's Research Hospital is a premier center for research and treatment of potentially fatal childhood diseases, including cancer, blood, genetic, and immunodeficiency disorders. Our mission is to advance cures and prevent pediatric catastrophic diseases.

St. Louis Fetal Care Institute
Booth #319
Phone: 314.268.4037
Fax: 314.678.4499
fetalcare@ssmhc.com
www.stlouisfetalcare.com

The St. Louis Fetal Care Institute is a comprehensive diagnostic and therapeutic program that specializes in treating congenital problems and structural abnormalities in babies, both in the womb and after birth.

Transgenomic Inc
Booth #314
Phone: 402.452.5400
Fax: 402.452.5401
info@transgenomic.com
www.transgenomic.com

Transgenomic, Inc. is a global biotechnology company specializing in genetic testing for cardiology (FAMILION), neurology, mitochondrial disorders and oncology. Transgenomic develops assays and offers testing with the goal to improve overall medical diagnosis and outcomes for patients.

Tute Genomics
Booth #721
Phone: 858.779.4363
adrienne.wallet@tutegenomics.com
www.tutegenomics.com

Tute Genomics is a Utah-based company that is powering the world's genomic knowledge with a cloud-based solution for precision genome-guided medicine. Genomics is changing healthcare as we know it and Tute is helping to shape the future of medicine: unlocking the genome, personalizing treatment and powering discovery.

UAB Medical Genomics Laboratory
Booth #431
Phone: 205.934.5562
Fax: 205.996.2929
medgenomics@uabmc.edu
www.genetics.uab.edu/medgenomics

The MGL provides sensitive, comprehensive, reliable and cost-effective testing to help with early and accurate diagnosis of genetic disorders. The MGL has a special focus on and expertise in all forms of the neurofibromatoses, the rasopathies and tuberous sclerosis.

UCLA Clinical Genomics Center
Booth #310
Phone: 310.775.5884
scwebb@mednet.ucla.edu
www.pathology.ucla.edu/genomics

The UCLA Clinical Genomics Center offers clinical exome sequencing (CES), genetic counseling and expert interpretation by our genomic data board. CES is just part of an extensive menu of genetic and genomic testing for hereditary disorders, cancer diagnosis/management, and other conditions, which are all performed within our CLIA-certified and CAP-accredited molecular diagnostics laboratories. Other available techniques include sanger sequencing, FISH, and chromosomal microarray for both postnatal evaluation and neoplastic conditions.

University of Chicago Genetic Services Laboratories
Booth #318
Phone: 773.834.0555
Fax: 773.702.9130
ucgslabs@genetics.uchicago.edu www.dnatesting.uchicago.edu

The University of Chicago Genetic Services Laboratory offers state-of the-art DNA diagnostic services including exome sequencing. Our focus is on testing for rare genetic diseases, including brain malformations, monogenic diabetes, and ataxia.

University of Washington
Booth #114
Phone: 800.713.5198
kdestro@uw.edu
www.depts.washington.edu/labweb

UNMC Human Genetics Laboratory
Booth #209
Phone: 402.559.5070
Fax: 402.559.7248
humangenetics@unmc.edu
www.unmc.edu/geneticslab

Established in 1974, our full-service clinical cytogenetic and molecular genetic laboratory specializes in both constitutional (prenatal /postnatal) and cancer diagnostics (hereditary/hem/onc) and our board certified geneticists and genetic counselors are committed to providing personalized genetic services.

WVU Medicine
Booth #435
www.wvuhealthcare.com

Attendance Verification Codes

NEW THIS YEAR - In place of badge scanners, an attendance verification code will be provided in each session to verify attendance. Please utilize this page to record the attendance verification code for each session you attend. **You will be required to enter an attendance verification code for each session you attend** to complete an evaluation and claim CEUs.

See page 2 for additional instructions on evaluating sessions and claiming CEUs.

Session	Attendance Verification Code
A01	
A02	
A03	
A04	
A05	
A06	
A07	
A08	
A09	
A10	
A11	
B01	
B02	
B03	
B04	
B05	
B06	
B07	
B08	
B09	

Session	Attendance Verification Code
B10	
B11	
B12	
B13	
B14	
B15	
B16	
B17	
C01	
C02	
C03	
C04	
C05	
C06	
C07	
C08	
C09	
C10	
C11	
C12	

Session	Attendance Verification Code
C13	
C14	
C15	
C16	
C17	
C18	
C19	
D01	
D02	
D03	
D04	
D05	
D06	
D07	
D08	
D09	
D10	
D11	
D12	
D13	