

THE FUTURE IS NOW LEADING THE WAY IN GENOMIC HEALTH

CONVENTION

PROGRAM BOOK

NSGC 32ND ANNUAL EDUCATION CONFERENCE

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The Medical Genetics Laboratories at Baylor College of Medicine have been dedicated to providing the medical genetics community with high quality comprehensive diagnostic services for over 40 years. Building on our institution's strengths in research and discovery, we've got you covered by providing quality genetic testing services relevant to twenty-first century medicine.





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THE FUTURE IS NOW LEADING THE WAY IN GENOMIC HEALTH

Welcome to California!

On behalf of the NSGC Annual Education Conference (AEC) Planning Subcommittee and the NSGC Board of Directors, thank you for joining us in Anaheim!

The future is now, and NSGC is leading the way in genomic health with more than 22 educational sessions designed to support your professional development. Session topics include genetic counseling research, ethical issues in genetic testing, personalized medicine and other topics on the forefront of genetics. Educational highlights you will not want to miss include the plenary session on ACMG Recommendations for Return of Secondary Findings in Clinical Sequencing (page 14), the Dr. Beverly Rollnick Memorial Lecture (page 16) and the NSGC Professional Issues Panel (page 15). Reference pages 11-16 for sessions submitted/sponsored by your NSGC Special Interest Group (SIG). Make the most of your AEC schedule and plan to attend educational 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. We encourage you to maximize your AEC experience and take advantage of the Welcome Reception, SIG meetings and other networking opportunities available to you this week. Visit the Exhibitor Suite to see the latest product offerings and services from industry partners. Catch up with old friends and make new connections during receptions, program reunions and daily breaks. Attend the State of the Society address and NSGC Business Meeting to learn more about the latest efforts of your professional organization. There are so many ways to make this week an incredible experience!

We hope you enjoy your time here in California. Take time to learn and connect as we reflect on the advances of the past year and look to the future of genomics, all while enjoying this amazing city!



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Quinn Stein, MS, CGC 2013 AEC Chair



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Katherine Dunn, MS, CGC 2013 AEC Vice-Chair



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Download the free 2013 NSGC AEC Mobile App!



This easy-to-use mobile app contains program information, the schedule-at-aglance, educational content, maps and more! Visit iTunes or

the Google Play Store and search "2013 NSGC AEC" to download your version on your smart phone or tablet. Or, just use this QR Code!

Statement of Purpose

The 32nd 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 "Technology and Innovative Communication in Genetic Counseling: Beyond Telemedicine" and "Living with Inherited Heart Disease: Psychosocial Challenges across the Lifespan." The Exhibitor Suite will provide current information and the opportunity to talk with exhibitors about new developments in genetics. The Preconference Symposia will provide in-depth information on specific topics relevant to the field of genetic counseling.

Continuing Education Units

NSGC has been approved to offer up to 0.50 CEUs or 5.0 Contact Hours (Category 1) for the Pre-conference Symposia and up to 3.175 CEUs or 31.75 Contact Hours (Category 1) for the Annual Education Conference. CEUs earned through these programs will be accepted by 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 to count towards recertification.

IMPORTANT: NSGC will issue a CEU confirmation e-mail following the conference. NSGC will only be able to verify the credits you earned by the portion of the sessions that are marked as "attended" and have been evaluated in the online system.

Evaluation Process

Please assist NSGC in evaluating the AEC sessions and provide valuable input that will help plan future conferences.

Educational Session Evaluations

Participants are asked to complete online evaluations to provide input regarding individual speakers and educational content. We ask all attendees to complete an online session evaluation for each session attended. Although individuals claiming CEUs MUST complete evaluations, NSGC would greatly appreciate feedback from all attendees.

Poster Evaluation

Participants may also complete an electronic poster evaluation form to evaluate the posters displayed. Those seeking CEUs for viewing posters MUST complete a poster evaluation form.

Concurrent Papers Evaluation

Concurrent papers feature six back-to-back presentations in four different categories which run concurrently. The speaker in the first time slot is considered speaker 1, the speaker in the second time slot is considered speaker 2, and so on.

Evaluating various speakers:

If you plan to attend all six abstract presentations within the same category (no room change), complete just one electronic evaluation by filling in the session code and evaluating speakers 1 thru 6. If you plan to change categories/rooms between presentations and would like to evaluate each speaker, you may complete up to four evaluations (one for each category, depending how many you attend). For each category, fill in the appropriate session code and then evaluate each speaker based on which time slot they presented in. The speaker in the first time slot is speaker 1, the speaker in the second time slot is speaker 2, and so on.

All online electronic evaluation forms can be found at **www.showreg.net/ NSGC1310S/CEUCreditlogin.asp.** A link to these forms can also be found at **www.nsgc.org** or on the AEC mobile app.

NOTE: To claim CEUs, you only need to complete one electronic evaluation for one category/session. You will claim the same session as "attended" in the online system.

Overall Conference Evaluation

Following the AEC, you will receive an electronic survey by e-mail requesting feedback about your overall conference experience. Please take a moment to complete this brief survey as your feedback is integral in planning future NSGC events.

2013 AEC Online Session Recordings

Maximize your AEC experience — listen to the sessions you missed in Anaheim, earn additional CEUs or access the valuable information you gathered on site. Take advantage of the opportunity to purchase the online session recordings — order today!

Session recording packages featuring all Pre- Conference Symposia*, or featuring the AEC Plenary and Educational Breakout Sessions* are available for purchase. The online recordings will contain synched audio and PowerPoint® presentations for each session. It is required that you complete and pass a quiz included at the conclusion of each session as well as submit an evaluation to earn Category 1 CEUs for participating in the online course recordings. Purchase your online recording package in conjunction with your AEC registration for a special discounted rate.**

If you register for the AEC only:

- AEC recordings \$59
- Pre-conference Symposia recordings \$119

If you register for a Pre-conference Symposium only:

- AEC recordings \$119
- Pre-conference Symposia recordings \$59

Best Combo Deal!

If you register for the AEC and Pre-conference Symposia:

 Receive both the Pre-conference Symposia and AEC recordings for the special package price of \$99.

Registered attendees will be able to order online content both during the AEC and following the conference at an increased rate. Do you have colleagues not attending the AEC? Check the NSGC website in January 2014 for additional information and purchase availability.

* With speaker approval

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

Registration Hours

Anaheim Convention Center

Tuesday, October 8	6:00 pm – 8:00 pm
Wednesday, October 9	7:00 am – 8:00 pm
Thursday, October 10	6:30 am – 8:00 pm
Friday, October 11	6:30 am – 7:00 pm

Anaheim Hilton Registration/Information Desk Saturday, October 12 6:30 am - 2:30 pm

Exhibitor Suite Hours

Wednesday, October 9	6:30 pm – 8:30 pm
Thursday, October 10	11:30 am – 2:30 pm
	5:30 pm – 7:30 pm
Friday. October 11	11:30 am - 3:45 pm

Message Center and Job Boards

Bulletin boards with push-pins are available outside Room 206 for attendees to leave messages for colleagues or to post job opportunities within the genetic counseling field. 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 will be available at Registration and will be available for making copies (at the attendee's expense) at the C2 Business Center located **inside the Anaheim Convention Center Main Lobby between Exhibit Halls B & C**. Attendee lists may not be used for solicitation purposes other than networking. NSGC is not responsible for errors and/or omissions.

Handouts and Presentations

NSGC offers electronic versions of AEC handouts. NSGC does not provide paper copies of AEC session handouts at the conference. All session handouts (if provided by the speaker) are posted on the NSGC Website and will be available following the conference until March 1, 2014. To download handouts go to http://www.nsgc.org/2013Handouts.

If you are also registered for a Pre-conference Symposium, you will be given a separate link to access these handouts. Handouts will also be available for making copies (at the attendee's expense) in the hotel's Business Center.

Business Centers: Hours of Operation

The C2 Business Center is located inside the **Anaheim Convention Center** Main Lobby between Exhibit Halls B & C and is open during the following hours:

Monday	9:00am - 6:00pm
Tuesday	9:00am - 6:00pm
Wednesday	7:00am - 7:00pm
Thursday	7:00am - 7:00pm
Friday	7:00am - 6:00pm

The Business Center in the **Hilton Anaheim** is self-serve and is open 24 hours a day. There is also a FedEx Kinko's Store open 24 hours a day in the Hilton Anaheim that offers shipping, copy and printing services.

Internet Access

All NSGC attendees who stay at the Hilton Anaheim will receive complimentary internet access in their guest room.

NSGC will also have an Internet Pavilion, sponsored by NextGxDx, at the Anaheim Convention Center. The Pavilion will be located on the second level, outside of Room 206, for attendee use. For more information about Internet options at the Convention Center, please visit the registration desk or NSGC booth.



Conference Events and Locations

Unless otherwise noted in the Schedule-at-a-Glance, please note all conference functions taking place Wednesday, October 9 - Friday, October 11 will be located in the Anaheim Convention Center. All conference functions taking place on Saturday, October 12 will be located in the Anaheim Hilton.

Sponsored Sessions

New this year! NSGC heard your feedback, and launched pre-registration for each Sponsored Meal Session offered at this year's conference. If you pre-registered to attend a session, a ticket will be printed with your badge at registration. In order to be admitted to each session, please bring the ticket that pertains to that session. We encourage you to show up early for each session to allow all attendees time to be seated. If you did not preregister 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 we still have room, we will be happy to accommodate you.

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

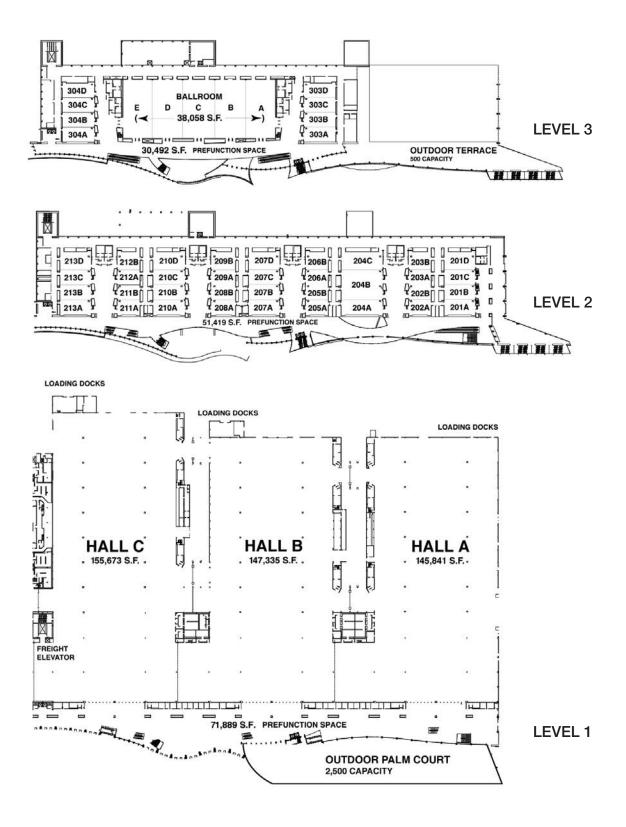
Executive Director Meghan Carey mcarey@nsgc.org

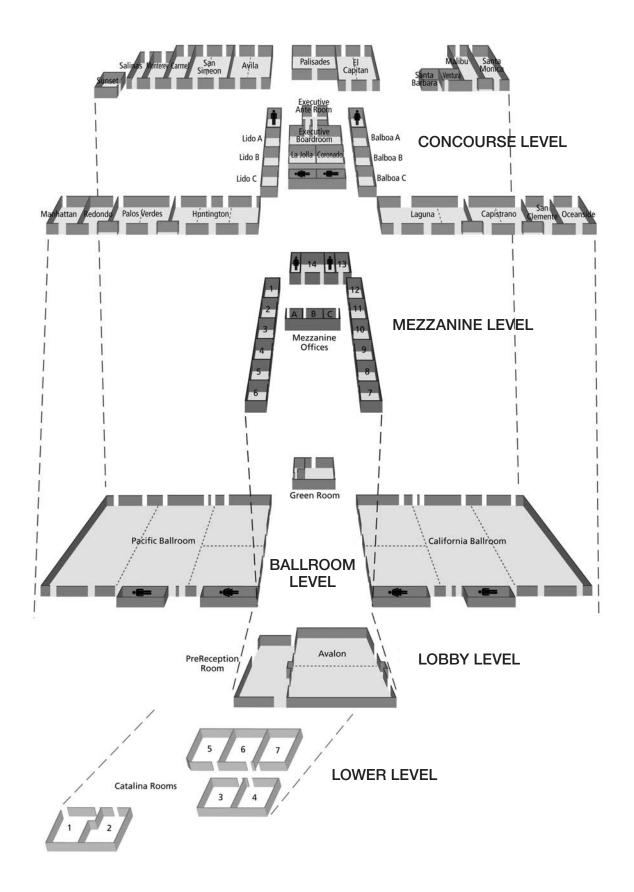
32nd Annual Education Conference Schedule-at-a-Glance

5:00 pm - 9:00 pm	I ynch Syndrome Screenin	g Network Meeting, Room	208 A				
		ig network meeting, noom	200 A				
6:00 pm - 8:00 pm	Registration Open ober 9 - All functions will take place at the Anaheim Convention Center						
		take place at the Anah	eim Convention Center				
7:00 am - 8:00 pm	pm Registration Open						
8:00 am - 2:00 pm	Pre-Conference Symposia	1					
	101 - Leadership Training: Your Next Step in Professional Development, Room 209 AB	102 - Reaching for Common Ground: Prenatal Genetic Counseling and Disability Equality, Room 304 AB	103 - Transitioning and Medical Home: The Role of the Genetic Counselor, <i>Room 206 B</i>	104 - Hereditary Cancer Next-Generation Sequencing Panels: Technology and Clinical Utilization, Room 303 ABC	105 - Epilepsy Genetics: A Paradigm for Genetic Services in the Era of Large Panel Testing, Room 206 A	106 - How to Develop a Genomics Service: A Practical Guide to Patient Selection, Data Generation Variant Analysis, Results Disclosure and Medical Management Using Who Genome Sequencing, <i>Room</i> 201 ABC	
1:00 pm – 3:00 pm	Genetic Counseling Outcomes Focus Groups, Room 203 A						
2:00 pm - 3:15 pm	Welcome to the AEC: How	to Make the Most of the C	onference and NSGC, Room	303 ABC			
3:30 pm - 3:45 pm	Opening Remarks, Ballroor	m ABC					
3:45 pm - 5:15 pm	Janus Series						
	107 - Advancements in Cy in the Era of Personalized	stic Fibrosis Therapeutics Medicine, Ballroom ABC	108 - Familial Hypercholes Treatable Yet Under-Diag Genetic Counselor, Ballroo	nosed. The Role of the	109 - Psychiatric Genetics Ballroom ABC	s: The New Frontier,	
5:30 pm - 5:45 pm	Beth Fine Kaplan Best Stu Ballroom ABC	Ident Abstract Award 110 -	Prenatal Diagnosis and Atti		me: Effects of Advancing Te	chnologies,	
5:45 pm - 6:00 pm	Best Full Member Abstrac Repeat Instability, Ballroom		isk of New Mutations for Hu	ntington Disease: CAG-Size	e Specific Risk Estimates of	Intermediate Allele	
6:00 pm - 6:30 pm	Natalie Weissberger Paul	National Achievement Awa	rd & Audrey Heimler Special	Projects Award, Ballroom A	BC		
6:30 pm - 8:30 pm			ed by Quest Diagnostics, Ex				
Thursday, Octobe	r 10 - All functions will t	ake place at the Anahe	im Convention Center				
6:30 am - 8:00 pm	Registration Open						
7:00 am - 7:45 am	· ·	sion 201 - Broadoning Your	Patients' Options with Expa	ndod Carrier Sereening - S	noncorod by Intograted Cor	otion Ballroom DE	
	•		Patients Options with Expa	nded Carrier Screening - S	porisored by integrated der	letics, Dalli OUTT DE	
7:00 am - 7:45 am	NSGC Leadership Orienta						
7:00 am - 7:45 am	Metabolic SIG Meeting, Ro						
7:00 am - 8:00 am	AEC Breakfast, Ballroom Fo						
8:00 am - 12:00 pm	AEC Outreach Program, R						
8:00 am - 9:30 am	Educational Breakout Ses	sions					
	202 - Living With Inherited Heart Disease: Psychosocial Challenges across the Lifespan, <i>Room 201 ABC</i>	203 - Prenatal CMA: Here to Stay? Room 303 ABC	204 - Technology and Innovative Communication in Genetic Counseling: Beyond Telemedicine, Room 304 AB	205 - Variant of Uncertain Significance Classification in Highly- Penetrant Cancer Susceptibility Genes: Tools for Interpretation, Psychosocial Issues and Decision Making Implications, <i>Room 207</i> <i>BCD</i>	206 - It's a Wonderful GC Life: Consider the Outcomes without Genetic Counselors, Room 204 B		
9:45 am - 10:45 am	Plenary Session 207 - Pas	t is Prologue: Why the Histe	ory of Genetic Counseling M	atters, Ballroom ABC			
10:45 am - 11:30 am	NSGC State of Society Ad	dress, Ballroom ABC					
11:30 am - 2:30 pm	Exhbitor Suite Open, Exhib	it Hall A					
11:30 pm - 12:30 pm	ABGC Business Meeting,	Ballroom ABC					
12:00 pm - 2:00 pm	Various SIG Meetings						
	Psychiatric SIG Meeting, 12:00 pm – 1:00 pm, Room 304 AB	Neurogenetics SIG Meeting, 12:15 pm - 1:15 pm, Room 303 ABC	Cardio SIG Meeting, 12:15 pm - 1:15 pm, Room 208 A	NSGC Cancer SIG Meeting, 12:15 pm - 2:00 pm, <i>Room 207 A</i>	Assisted Reproductive Technologies and Infertility SIG Meeting, 12:30 pm – 2:00 pm, Room 304 C	Personalized Medicine SIG Meeting, 12:30 pm 2:00 pm, Room 208 B	
	Industry SIG Meeting, 12:30 pm - 2:00 pm, Room 204 C	Cystic Fibrosis SIG Meeting, 1:00 pm - 2:00 pm, Room 209 B	Research SIG Meeting, 1:00 pm - 2:00 pm, Room 206B	Prenatal SIG Meeting, 1:00 pm - 2:00 pm, Room 206 A	Student/New Member SIG Meeting, 1:15 pm - 2:00 pm, Room 209 A		
12:30 pm - 2:15 pm		essions are available in the Exi					
12:30 pm - 2:00 pm		·	Genomic Studies: One Lab	s Real World Experience - S	ponsored by Baylor College	e ot Medicine, Ballroom DE	
12:30 pm - 2:15 pm	Various NSGC Committee Meetings Access and Service Delivery Committee Meeting, Membership Committee Meeting, Education Committee Meeting,						
	12:30 pm - 1:30 pm, Room 303 D 12:30 pm - 1:30 pm, Room 204 A Practice Guidelines Committee Meeting, Ethics Advisory Group Meeting,				12:30 pm - 1:30 pm, Room 205 B Public Policy Committee Meeting,		
2:15 pm - 3:45 pm	12:30 pm - 1:30 pm, Room Educational Breakout Ses	203 A	12:30 pm - 2:00 pm, Room		1:15 pm - 2:15 pm, Room 2		
2:15 pm - 3:45 pm	209 - Non-Profit Genetics Groups: A Director's Perspective of the Genetics World, Room 304 AB	210 - Mama Mia! When Your Patient with a Genetic Disease is Pregnant, Room 201 ABC	211 - Genetic Medicine in Multidisciplinary Clinics: Uncharted Frontiers and Stories from the Cleft Clinic, Room 303 ABC	212 - Engaging Multiple Sectors to Utilize Data for Public Health Action: Case Example of BRCA Analysis, Room 207 BCD	213 - Coming Together for the Future: Bridging Professional Divides to Address Common Ethical Questions and Policy		

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4:00 pm - 5:00 pm	Plenary Session 214 - ACM					ABC	
5:00 pm - 6:00 pm	Plenary Session 214 - ACMG Recommendations for Return of Secondary Findings in Clinical Sequencing: Process and Product, Ballroom ABC Plenary Session 215 - Update on Gene Therapy for Neurogenetic Disorders, Ballroom ABC						
5:30 pm - 7:30 pm	Exhibitor Suite Open - Exhibit Hall A						
6:00 pm - 7:00 pm	Posters with Authors 216 - Even Numbered Poster Presentations, Exhibit Hall A						
7:00 pm - 8:00 pm	International SIG Meeting,	Room 203 A					
7:30 pm - 8:00 pm		logy SIG Meeting, Room 20	5 <i>B</i>				
7:45 pm - 9:15 pm				netic Disorder and Fetal A	bnormality in Advanced Gesta	tions at Boulder Abortio	
		Sponsored Evening Session 217 - Termination of Pregnancy for Indications of Genetic Disorder and Fetal Abnormality in Advanced Gestations at Boulder Abortion Clinic - Sponsored by Boulder Abortion Clinic, Ballroom DE					
Friday, October 11	1 - All functions will take	place at the Anaheim G	Convention Center				
6:30 am - 7:00 pm	Registration Open						
7:00 am - 7:45 am	Sponsored Breakfast Session 301 - Comprehensive Prenatal Genetic Testing: Is Chromosomal Microarray Analysis the New Standard? - Sponsored by CellScape, Baliroom DE						
7:00 am - 7:45 am	Past NSGC Board Member	r Breakfast, Room 205 A					
7:00 am - 8:00 am	AEC Breakfast, 2nd and 3rd floor Foyers						
8:00 am - 9:30 am	Educational Breakout Sess	sions					
	302 - Navigating the Current Job Market: Utilizing Resources, Identifying Opportunities and Promoting Yourself to Get the Genetic Counseling Position You Desire, Room 304 AB	303 - Making a Difference: Case Management, Communication and Professional Experiences within Laboratory Genetic Counseling, Room 204 B	304 - Communicating with Your Children Regarding Risk for Adult Onset Disorders, <i>Room 303 ABC</i>	305 - Linking the Clinical Silos of Gastroenterology and Genetic Counseling, Room 207 BCD	306 - Exploring Commonly Occuring but Regularly Unrecognized Ethical Grey Areas in Research, <i>Room 201 ABC</i>		
8:00 am - 12:00 pm	AEC Outreach Program, Ro	oom 304 C	I				
9:45 am - 10:30 am		Fragile X Newborn Screeni	ng Project, Ballroom ABC				
10:30 am - 11:30 am	-	essional Issues Panel, Ballro					
11:30 am - 12:30 pm	NSGC Business Meeting, E						
11:30 pm - 3:45 pm	Exhibitor Suite Open - Exhi						
12:30 pm - 2:00 pm	· ·		ancer Testing Update - Spo	nsored by Myriad Genetic I	aboratories, Inc., Ballroom DE		
12:30 pm - 2:00 pm	· ·	essions are available in the Exh					
12:45 pm - 1:30 pm	Education SIG Meeting, Ro		ionor ouno, Exhibit hairry				
12:45 pm - 1:45 pm		· Odd Numbered Poster Pre	sentations Exhibit Hall A				
2:00 pm - 3:30 pm	Concurrent Papers						
2.00 pm - 3.30 pm	311 - Adult and Cancer, Room 207 BCD	312 - Counseling/ Psychosocial Issues, <i>Room 201 ABC</i>	313 - Education, <i>Room 204 B</i>	314 - Genetic Testing I, <i>Room 303 ABC</i>			
3:30 pm – 3:45 pm	Passport to Prizes Drawing	gs, Exhibitor Suite, Exhibit H	all A				
3:45 pm - 4:45pm	Plenary Session 315 - The	\$1,000 Genome, the \$1 Mill	ion Interpretation, Ballroom	ABC			
4:45 pm - 5:30 pm	NSGC Leadership Awards	Presentation, Ballroom ABC	· · ·				
5:30 pm - 6:30 pm	•	e Engelberg Memorial Fello		n ABC			
6:45 pm - 8:15 pm	-				Genetic Testing - Sponsored	by GeneDx. Ballroom DF	
	Sponsored Evening Session 317 - Multi-Gene Panels: A New Approach to Inherited Cancer and Neuropathy Genetic Testing - Sponsored by GeneDx, Ballroom DE						
Cuturuuy, Ootober	r 12 - All functions will take place at the Anaheim Hilton						
6:30 am - 2:30 pm		ike place at the Anaheii	n Hilton				
	Registration Open			exating NIDT into Clinical	Practical Pavian of the Liter	tura Spanaarad bu	
6:30 am - 2:30 pm 7:00 am - 7:45 am	Registration Open	sion 401 - Non-Invasive Pre		porating NIPT into Clinical	Practice: Review of the Litera	ature - Sponsored by	
	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroom	sion 401 - Non-Invasive Pre n AB		porating NIPT into Clinical	Practice: Review of the Litera	ture - Sponsored by	
	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroom AEC Breakfast, Pacific Ballro	sion 401 - Non-Invasive Pre n AB com Foyer	enatal Testing (NIPT) Incorp		Practice: Review of the Litera		
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7:00 am - 7:45 am 7:00 am - 8:00 am 8:00 am - 9:00 am 9:00 am - 9:30 am	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroon AEC Breakfast, Pacific Ballro Dr. Beverly Rollnick Memo Pacific Ballroom CD Incoming Presidential Add Late-breaking Plenary Ses	sion 401 - Non-Invasive Pre n AB oom Foyer rial Lecture 402 - Navigating Iress, Pacific Ballroom CD ssion 403 - The Genomic Se	enatal Testing (NIPT) Incorp g the Genome in Clinical Ca	are and Public Health: The	Indispensible Role of the Gen	etic Counselor,	
7:00 am - 7:45 am 7:00 am - 8:00 am 8:00 am - 9:00 am 9:00 am - 9:30 am 9:30 am - 10:30 am	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroon AEC Breakfast, Pacific Ballroon Dr. Beverly Rollnick Memo Pacific Ballroom CD Incoming Presidential Add Late-breaking Plenary Ses Pacific Ballroom CD	sion 401 - Non-Invasive Pre n AB oom Foyer rial Lecture 402 - Navigating Iress, Pacific Ballroom CD ssion 403 - The Genomic Se	enatal Testing (NIPT) Incorp g the Genome in Clinical Ca	are and Public Health: The	Indispensible Role of the Gen	etic Counselor,	
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7:00 am - 7:45 am 7:00 am - 8:00 am 8:00 am - 9:00 am 9:00 am - 9:30 am 9:30 am - 10:30 am 10:45 am - 12:15 pm	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroon AEC Breakfast, Pacific Ballroon Dr. Beverly Rollnick Memo Pacific Ballroom CD Incoming Presidential Add Late-breaking Plenary Ses Pacific Ballroom CD Educational Breakout Sess 404 - Passing the Torch: Developing a Genetic Counseling Preceptorship, Laguna AB Lunch on Your Own Sponsored Lunch Session	sion 401 - Non-Invasive Pre n AB com Foyer rial Lecture 402 - Navigating ress, Pacific Ballroom CD ssion 403 - The Genomic So sions 405 - Depression and Psychosis in the Prenatal Setting: A Genetic Counselor's Practical Guide, Avalon	enatal Testing (NIPT) Incorp g the Genome in Clinical Ca equencing and Newborn So 406 - The Whole Exome Network: How Changes in Sequencing Technology Influences Both Providers and Patients, <i>Huntington ABC</i>	407 - Site of Ovarian Cancer Initiation, Discussion of the Evidence of Fallopian Tube Cancer Versus Endometriosis and Management Options for Hereditry Cancer Families, Pacific Ballroom CD	Indispensible Role of the Geno m: Exploring a New Era in Ne 408 - Lessons from Clinical Trials of Genetic	etic Counselor, wborn Screening,	
7:00 am - 7:45 am 7:00 am - 8:00 am 8:00 am - 9:00 am 9:00 am - 9:30 am 9:30 am - 10:30 am 10:45 am - 12:15 pm 12:15 pm - 2:00 pm 12:30 pm - 2:00 pm	Registration Open Sponsored Breakfast Sess Natera Inc., Pacific Ballroon AEC Breakfast, Pacific Ballroon Dr. Beverly Rollnick Memo Pacific Ballroom CD Incoming Presidential Add Late-breaking Plenary Ses Pacific Ballroom CD Educational Breakout Sess 404 - Passing the Torch: Developing a Genetic Counseling Preceptorship, Laguna AB Lunch on Your Own Sponsored Lunch Session Pacific Ballroom AB	sion 401 - Non-Invasive Pre n AB com Foyer rial Lecture 402 - Navigating ress, Pacific Ballroom CD ssion 403 - The Genomic So sions 405 - Depression and Psychosis in the Prenatal Setting: A Genetic Counselor's Practical Guide, Avalon	enatal Testing (NIPT) Incorp g the Genome in Clinical Ca equencing and Newborn So 406 - The Whole Exome Network: How Changes in Sequencing Technology Influences Both Providers and Patients, <i>Huntington ABC</i>	407 - Site of Ovarian Cancer Initiation, Discussion of the Evidence of Fallopian Tube Cancer Versus Endometriosis and Management Options for Hereditry Cancer Families, Pacific Ballroom CD	Indispensible Role of the Gene m: Exploring a New Era in Ne 408 - Lessons from Clinical Trials of Genetic Counseling, El Capitan	etic Counselor, wborn Screening,	
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Anesthetist Rob MacLennan CRNA



Ob Gyn Josepha Seletz MD



Sinai Surgical Center

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Prenatal counselors

How do you handle a family's worst nightmare? Be confident your patients get the care they deserve. Dignity. Privacy. Compassion. Comfort. Refer with confidence. There is no substitute for experience. Your partner in managing the tragically flawed pregnancy



Booth 416 center of the exhibit hall



Wednesday, October 9

Pre-conference Symposia

8:00 am - 2:00 pm

101 Leadership Training: Your Next Step in Professional Development 0.50 CEU

1. Dale West, CAE, SmithBucklin, Inc.; 2. Amy Sturm, MS, CGC, The Ohio State University; 3. Barbara Pettersen, MS, CGC, Natera, Inc.; 4. Cindy Soliday, MS, CGC, Kaiser Permanente; 5. Susan Hahn, MS, CGC, University of Miami Miller School of Medicine; 6. Rebecca Nagy, MS, GCG, The Ohio State University, NSGC President; 7. Beverly Yashar, MS, PhD, University of Michigan, ABGC President; 8. Robin Bennett, MS, CGC, University of Washington, ACGC President

- Identify the personal strengths of genetic counselors and discuss how these strengths can be capitalized upon in leadership positions.
- Develop successful methods of leadership in a practice setting and in professional organizations.
- Learn how to develop a concrete two- to three-year plan defining future goals.

Sponsored by: The Dr. Beverly Rollnick Memorial Fund

102 Reaching for Common Ground: Prenatal Genetic Counseling and Disability Equality

0.50 CEU

 Alexandra Minna Stern, PhD, University of Michigan; 2. Anne C. Madeo, MS, CGC, Genomic Medicine Service - Veterans Health Administration; 3. Adrienne Asch, PhD, Yeshiva University; 4. Alison Piepmeier, PhD, The College of Charleston; 5. Melissa Kershner Lenihan, MS, CGC, St. Luke's Hospital; 6. Lisa R. Johnson, MS, CGC, Miami Valley Hospital; 7. Paige T. Church, MD, University of Toronto; 8. Dana Knutzen, MS, CGC, Madigan Army Medical Center; 9. Stephanie A. Cohen, MS, CGC, LGC, St. Vincent Cancer Genetics Risk Assessment Program; 10. Katie Stoll, MS, LGC, Madigan Army Medical Center

- Describe the history of the genetic counseling profession and its complex relationship with disability.
- Discuss current genetic counseling practices that may contribute to undermining informed decision making.
- Outline steps that genetic counselors can take to support disability equality and informed reproductive decisions through more accurate and complete information and through challenging misconceptions about prenatal testing and the conditions that these tests evaluate.

103 Transitioning and Medical Home: The Role of the Genetic Counselor

0.50 CEU

1. Lori Williamson-Dean, MS, CGC, LGC, Heartland Genetics & NBS Collaborative; 2. Laura Pickler, MD, MPH, Children's Hospital Colorado; 3. Wendy Parent-Johnson, PhD, CRC, CESP, Sanford School of Medicine; 4. Meg Comeau, MHA, Boston University School of Public Health; 5. Bill Kubicek, The Next Step Fund; 6. Young Adult Panelists: Owen Erquiaga, Jasmin Floyd and Teresa Nguyen; 7. Melanie D. Baxter, ScM, CGC, Saint Francis Medical Center; 8. Monica R. McClain, PhD, Institute on Disability, University of New Hampshire

- Describe how genetic counselors can partner with the collaboratives to achieve shared goals.
- Recognize how the process of transition exemplifies the medical home approach and the role genetic counselors can play within the process.
- Interpret select provisions of the Affordable Care Act and what they mean for genetic counselors and their patients.

104 Hereditary Cancer Next-Generation Sequencing Panels: Technology and Clinical Utilization 0.50 CEU

1. Brittany C. Thomas, MS, CGC, Mayo Clinic; 2. AJ Stuenkel, MS, CGC, Ambry Genetics; 3. Benjamin Roa, PhD, Myriad Genetic Laboratories, Inc.; 4. Colin Pritchard, MD, PhD, University of Washington; 5. Noralane Lindor, MD, Mayo Clinic; 6. Erin M. Miller, MS, CGC, Cincinnati Children's Hospital and Medical Center; 7. Heather Hampel, MS, CGC, The Ohio State University Division of Human Genetics; 8. Zohra Ali-Khan Catts, MS, CGC, Christiana Care Helen F. Graham Cancer Center; 9. Anu Chittenden, MS, CGC, Dana Farber Cancer Institute

- Develop knowledge of the details of hereditary cancer panel technologies and the ability for comparative analysis across panels.
- Review the cancer risks and literature strength behind the genes on the commercially offered hereditary cancer panels.
- Discuss strategies for dealing with the new clinical implications of hereditary cancer panels such as clinical management for less penetrant genes and testing strategy when considering single gene vs. panel.

Submitted/Sponsored by: Cancer SIG

105 Epilepsy Genetics: A Paradigm for Genetic Services in the Era of Large Panel Testing

0.50 CEU

1. Christine G. Spaeth, MS, CGC, Cincinnati Children's Hospital Medical Center; 2. Emily King, MS, CGC, Cincinnati Children's Hospital Medical Center; 3. Daniel H. Lowenstein, MD, University of California, San Francisco; 4. Anita Shanmugham, MS, MPH, CGC, GeneDx; 5. Beth Rosen Sheidley, MS, CGC, Boston Children's Hospital; 6. Panelists: Jennifer Errande, Tina Webb, Tamara Horak and Dawn Martenz

- Review the natural history, genetic etiology and current management of primary monogenic and syndromic forms of epilepsy.
- Discuss genetic testing for epilepsy and the role of the genetic counselor.
- Recognize the complex psychosocial issues faced by individuals with epilepsy and their families.

Submitted/Sponsored by: Neurogenetics SIG

105 How to Develop a Genomics Service: A Practical Guide to Patient Selection, Data Generation Variant Analysis, Results Disclosure and Medical Management Using Whole Genome Sequencing

0.50 CEU

1. Regan L. Veith, MS, CGC, Children's Hospital of Wisconsin; 2. Erica Ramos, MS, CGC, Illumina, Inc; 3. Timothy Yu, MD, PhD, Harvard Medical School; 4. Amy White, MS, CGC, Children's Hospital of Wisconsin; 5. Julie A. Rousseau, MS, CGC, LGC, Boston Children's Hospital

- Develop and evaluate a comprehensive, end-to-end process for whole genome sequencing in the clinical setting, from patient selection, data generation and variant analysis to results disclosure and medical management.
- Design a patient selection strategy appropriate for their practice setting.
- Perform a basic analysis of genomic variants using informatics tools.

Janus Series

3:45 pm – 5:15 pm

107 Advancements in Cystic Fibrosis Therapeutics in the Era of Personalized Medicine

0.05 CEU

- 1. Rebecca Darrah, MS, PhD, Case Western Reserve University
- Identify the various classes of CFTR mutations, including their associated molecular effects.
- Describe the interventions that have been designed to correct a subset of molecular defects within the CFTR gene.
- Summarize current clinical trials, efficacy data and implementation strategies for utilizing newly available drugs in the treatment and management of cystic fibrosis.

Submitted/Sponsored by: Cystic Fibrosis SIG

103 Familial Hypercholesterolemia: Common and Treatable Yet Under-Diagnosed. The Role of the Genetic Counselor 0.05 CEU

1. Amy C. Sturm, MS, Ohio State University Wexner Medical Center

- Recognize family histories, clinical signs and lipid levels that suggest Familial Hypercholosterolemia (FH).
- Describe the published recommendations for the screening, diagnosis and treatment of FH.
- Demonstrate ability to implement cascade screening of at-risk family members, to educate patients about FH, therapies, and ways to increase awareness and recognition of FH across medical disciplines.

Submitted/Sponsored by: Cardiovascular Genetics SIG

109 Psychiatric Genetics: The New Frontier 0.05 CEU

- 1. Jehannine Austin, PhD, CCGC, CGC, University of British Columbia
- Summarize the history of psychiatric genetics research and review the most recent results from studies of, for example, CNVs and exome sequencing.
- Evaluate the clinical significance of currently available psychiatric genetic testing, including pharmacogenetic testing, with reference to relative risks and limitations of test results.
- Discuss psychiatric genetic test results in the context of the family and medical history, as well as the importance of understanding the complexity of gene-environment interactions from the perspectives of researchers, patients, patients' families and clinicians.

Submitted by: Psychiatric SIG

Best Abstract Awards

5:30 pm – 5:45 pm

Beth Fine Kaplan Best Student Abstract Award

110 Prenatal Diagnosis and Attitude towards Down Syndrome: Effects of Advancing Technologies

0.025 CEU

- 1. Emily Higuchi, University of Michigan
- Compare the risks and benefits of implementing NIPT as a genetic testing modality from the perspective of the general public.
- Use knowledge about the impact of NIPT on prenatal decision-making to support informed discussions with prospective patients.
- Describe the tensions that NIPT creates between the disability rights community and the genetic counseling community.

5:45 pm - 6:00 pm

Best Full Member Abstract Award

111 Significant Risk of New Mutations for Huntington Disease: CAG-Size Specific Risk Estimates of Intermediate Allele Repeat Instability 0.025 CEU

0.025 CEU

- 1. Alicia Semaka, MSc, PhD, CCGC, University of British Columbia
- Identify factors influencing CAG repeat instability in Huntington disease (HD).
- Learn the likelihood of intermediate allele CAG repeat instability, including repeat contractions and expansions, particularly expansions into the pathological CAG size range.
- Describe the implications of the instability data for genetic counseling, including clinical risk assessment for new mutations and the possibility of symptomatic HD.

Thursday, October 10

Sponsored Breakfast Session

7:00 am - 7:45 am

201 Broadening Your Patients' Options with Expanded Carrier Screening

0.05 CEU

1. Maria Guyette, CGC, Integrated Genetics; 2. Jordanna Mora, CGC, Integrated Genetics

- Identify the approach taken in providing a clinically relevant expanded carrier screen.
- Recognize important considerations when counseling patients regarding expanded carrier screening.
- Relate and counsel through various possible patient scenarios seen with expanded carrier screening.

Sponsored by: Integrated Genetics

Educational Breakout Sessions

8:00 am - 9:30 am

202 Living with Inherited Heart Disease: Psychosocial Challenges Across the Lifespan

1. Laura Cayan, PsyD, San Francisco Family Practice; 2. Christine Colon, MS, LCGC, University of California, San Diego; 3. Jodie Ingles, GDGC, PhD, Centenary Institute; 4. Michael Ackerman, MD, PhD, Mayo Clinic College of Medicine; 5. Samuel F. Sears, PhD, East Carolina University

- Recognize and describe common psychosocial challenges experienced by families living with inherited cardiomyopathies and arrhythmia conditions.
- Describe the medical rationale for lifestyle recommendations that families with inherited heart disease may find challenging.
- Predict issues that may be facing a family with inherited heart disease in clinic and to able to select an effective genetic counseling response.

Submitted/Sponsored by: Cardiovascular Genetics SIG

203 Prenatal CMA: Here to Stay?

0.15 CEU

1. Melissa Savage, MS, CGC, Natera, Inc.; 2. Jill A. Rosenfeld, MS, LCGC, Signature Genomic Laboratories, PerkinElmer, Inc.; 3. Neda Zadeh, MD, FACMG, Genetics Center; 4. Melissa Strassberg, MS, CGC, Texas Children's Maternal Fetal Medicine

- Describe the current technologies available for chromosomal microarray in the prenatal setting.
- Review current literature on the use of chromosomal microarray in prenatal diagnosis.
- Discuss genetic counseling issues inherent to chromosomal microarray.
 Submitted/Sponsored by: Prenatal SIG

204 Technology and Innovative Communication in Genetic

Counseling: Beyond Telemedicine

0.15 CEU

1. Heather Fecteau, MS, CGC, The Medical Center of Plano; 2. Kaylene Ready, MS, CGC, Counsyl; 3. Allison D. Janson Hazell, MSc, CGC, CCGC, Medcan Clinic

- Demonstrate how mobile applications and tablets can improve productivity and efficiency in a genetic counseling setting.
- Describe innovative communication strategies to improve patient understanding and access to genetic counseling services.
- Discover how to utilize technology in genetic counseling by analyzing on-line genomics tools available direct to consumer.

Submitted by: Access and Service Delivery Committee, Health IT SIG and Personalized Medicine SIG $\,$

Sponsored by: Personalized Medicine SIG

205 Variant of Uncertain Significance Classification in Highly-Penetrant Cancer Susceptibility Genes: Tools for Interpretation, Psychosocial Issues and Decision Making Implications 0.15 CEU

1. Julie Culver, MS, CGC, USC Norris Cancer Hospital; 2. Sue Richards, PhD, FACMG, Oregon Health Science University; 3. Sean Tavtigian, PhD, The University of Utah; 4. Julie Eggington, PhD, MS, Myriad Genetic Laboratories, Inc.; 5. Noralane Lindor, MD, Mayo Clinic

- Outline the current ACMG guidelines for classifying variants in genes and Human Genome Variation Society nomenclature.
- Review the most common tools currently used to understand and clinically interpret mutations in cancer susceptibility genes and demonstrate the limitations of each method to enable genetic counselors to assess the classification of the variant.
- Recognize the implications of VUS carriage on surgical decision making and on the psychosocial issues of risk perception and cancer distress.

206 It's a Wonderful GC Life: Consider the Outcomes without Genetic Counselors

0.15 CEU

1. Shanna L. Gustafson, MS, MPH, CGC, University of Michigan, Division of Molecular Medicine and Genetics, Department of Internal Medicine; 2. Heather A. Zierhut, MS, CGC, University of Minnesota Medical Center-Fairview

- Illustrate clinical outcomes of care influenced by the presence of boardcertified genetic counselors and possible future directions for outcomes research.
- Describe tools for obtaining data that have been used to measure patientoriented outcomes in genetic counseling and in other fields that may be applicable to genetic counseling.
- Discuss outcomes for patients and populations influenced by involvement of board-certified genetic counselors, focusing on those which are most important and those that may be lacking from the current body of literature.

Submitted by: Access and Service Delivery Committee

Plenary Session

9:45 am - 10:30 am

207 Past is Prologue: Why the History of Genetic Counseling Matters

0.10 CEU

- 1. Alexandra Minna Stern, PhD, University of Michigan; 2. Robert Resta, MS, LCGC, Swedish Medical Center
- Recognize the importance of understanding the history of genetic counseling as general knowledge and for clinical practice.
- Illustrate how complementary methods might be productively used to explore the history of genetic counseling.
- Describe why the history of genetic counseling is relevant to many contemporary issues in the field and its future.

Sponsored Lunch Session

12:30 pm - 2:00 pm

203 Incidental Findings in Genomic Studies: One Lab's Real World Experience

0.10 CEU

1. Sandra Peacock, MS, CGC, Baylor College of Medicine; 2. Timikia Vaughn, MS, CGC, Baylor College of Medicine; 3. Ankita Patel, PhD, Baylor College of Medicine; 4. Pilar Magoulas, MS, CGC, Baylor College of Medicine; 5. Sandra Darilek, MS, CGC, Baylor College of Medicine

- Summarize the historical medical experience underlining the current approach to incidental findings.
- Illustrate an approach to ethics and current ACMG guidelines using actual clinical cases for genomic based studies such as WES and CMA.
- Recognize the interplay of the laboratory and the clinician in defining incidental findings and the effect on clinical outcomes.

Sponsored by: Baylor College of Medicine

Educational Breakout Sessions

2:15 pm – 3:45 pm

209 Non-Profit Genetics Groups: A Director's Perspective of the Genetics World

0.15 CEU

1. Lisa Salberg, CEO of Hypertrophic Cardiomyopathy Association; 2. Annie Kennedy, Muscular Dystrophy Association

- Identify the services provided by the Hypertrophic Cardiomyopathy Association and the Muscular Dystrophy Association.
- Gather prospective on how genetic counseling and testing have impacted individual families and their respective communities.
- Develop an understanding of the genetics resources and educational needs of patient organizations.

210 Mama Mia! When Your Patient with a Genetic Disease is Pregnant

0.15 CEU

1. Kristin Nunez, MS, CGC, Duke University Medical Center; 2. Jennifer A. Sullivan, MS, CGC, Duke University Medical Center; 3. Wendy E. Smith, MD, Maine Medical Partners, Pediatric Specialty Care

- Recognize the management considerations when the patient has a known genetic diagnosis.
- Identify appropriate care models and resources to maximize patient outcomes for both mother and child.
- Recognize the counseling issues inherent in prenatal sessions when the mother has a genetic diagnosis.

Submitted/Sponsored by: Metabolism/LSD SIG

211 Genetic Medicine in Multidisciplinary Clinics: Uncharted Frontiers and Stories from the Cleft Clinic

1. Carrie L. Blout, MS, CGC, Johns Hopkins University; 2. Marilyn Jones, MD, Rady Children's Hospital; 3. Natalie Beck, MGC, CGC, Johns Hopkins University; 4. Richard Redett, MD, Johns Hopkins Cleft Lip and Palate Center

- Describe the journey to incorporate genetic medicine into an established multidisciplinary team at an academic institution by advocating the worth of family history, genetic counseling and unifying diagnostic evaluations.
- Recognize the genetic complexity of cleft lip +/- palate and the important role of genetic medicine in this multidisciplinary clinic.
- Describe the role of the multidisciplinary team members in a comprehensive cleft clinic to diagnose, treat and counsel patients and demonstrate how this clinical template can be applied to any multidisciplinary clinical setting.

Submitted/Sponsored by: Pediatric SIG

212 Engaging Multiple Sectors to Utilize Data for Public Health Action: A Case Example of *BRCA* Analysis 0.15 CEU

1. Debra Duquette, MS, CGC, Michigan Department of Community Health; 2. Jessica Everett, MS, CGC, University of Michigan; 3. Kate Reed, MS, MPH, National Coalition for Health Profession Education in Genetics; 4. Cecilia Bellcross, PhD, MS, CGC, Emory University School of Medicine; 5. Karen Kovac, MS, CGC, Oregon Health & Science University

- Describe trends in *BRCA1* and *BRCA2* testing at the state level over time.
- Evaluate the importance of population genetic testing data for public health surveillance and policy decisions related to hereditary cancer.
- Discuss implications of population genetic testing data in planning provider and public education about hereditary cancer and appropriate use of genetic tests.

Submitted by: Cancer SIG, Public Health SIG

Sponsored by: Cancer SIG

213 Coming Together for the Future: Bridging Professional Divides to Address Common Ethical Questions and Policy Needs 0.15 CEU

1. Kelly E. Ormond, MS, CGC, Stanford University; 2. Rebecca Nagy, MS, CGC, The Ohio State University; 3. Stephanie M. Fullerton, DPhil, University of Washington; 4. Wayne Grody, MD, PhD, University of California, Los Angeles

- Describe the primary ethics questions facing genome scientists, physicians and genetic counselors over the next two to five years and how they intersect across professional functions.
- Recognize the policy challenges and bottlenecks to developing solutions that could improve the genetics and genomics communities' capacity to address important ethics considerations.
- Identify and advance possible projects for which the big three genetics and genomics professional societies could better work together to address challenges and opportunities facing the field as a whole.

Plenary Sessions

4:00 pm – 5:00 pm

214 ACMG Recommendations for Return of Secondary Findings in Clinical Sequencing: Process and Product 0.10 CEU

1. Sarah S. Kalia, ScM, CGC, Brigham and Women's Hospital and Harvard Medical School; 2. Julianne M. O'Daniel, MS, CGC, University of North Carolina at Chapel Hill; 3. Kelly E. Ormond, MS, CGC, Stanford University

- List at least five disorders for which obligatory reporting as a secondary finding is recommended by the ACMG.
- Describe the guiding principles upon which the minimum list of genes and disorders is based.
- Identify the ethical and clinical issues that arise, including informed consent and return of secondary findings in clinical practice.

5:00 pm – 6:00 pm

215 Update on Gene Therapy for Neurogenetic Disorders 0.10 CEU

1. Beverly Davidson, PhD, University of Iowa; 2. Shawna Feely, MS, CGC, University of Iowa Hospitals & Clinics

- Describe advancements in gene therapy technologies including use of RNAi and ASOs as a potential treatment for neurogenetic conditions.
- Recognize the advancements in the field, but also the current limitations and hurdles for gene therapy to progress from bench to bedside.
- Identify how these advancements may change discussions with patients with regards to future treatment options and clinical trials.

Submitted/Sponsored by: Neurogenetic SIG

Sponsored Evening Session

7:45 pm – 9:15 pm

217 Termination of Pregnancy for Indications of Genetic Disorder and Fetal Abnormality in Advanced Gestations at Boulder Abortion Clinic

0.10 CEU

- 1. Warren M. Hern, MD, MPH, PhD, Boulder Abortion Clinic
- Understand the relevance of these services to genetic counseling.
- Understand the purpose, basic principles, and components of clinical practice including grief support.

Understand the basic operative procedures and clinical results of this care. Sponsored by: Boulder Abortion Clinic

Friday, October 11

Sponsored Breakfast Session

7:00 am - 7:45 am

SOI Comprehensive Prenatal Genetic Testing: Is Chromosomal Microarray Analysis the New Standard?

1. Mary E. Norton, MD, FACMG, FACOG, University of California, San Francisco; 2. Christa L. Martin, PhD, FACMG, Geisinger Health System; 3. W. Andrew Faucett, MS, CGC, Geisinger Health System

- Review the landscape of new prenatal genetic testing and understand what genetic information is most desired by patients during pregnancy.
- One year later: outline how the landmark National Institute of Child Health and Human Development CMA study has altered the prenatal detection of cytogenetic disorders and identify new databases and resources that can assist in patient counseling.
- Discuss the role of genetic counselors in ensuring that families understand their testing options and have the right information to make effective, informed decisions.

Sponsored by: CellScape

Educational Breakout Sessions

8:00 am - 9:30 am

302 Navigating the Current Job Market: Utilizing Resources, Identifying Opportunities and Promoting Yourself to Get the Genetic Counseling Position You Desire

0.15 CEU

1. Melanie Hardy, MS, CGC, Henrico Doctors' Hospital; 2. Rachel Kiely, MS, CGC, Integrated Genetics; 3. Katherine Lafferty, MS, CGC, Boston University; 4. Sharanya Kumaravel, MS, LCGC, Kaiser Permanente; 5. Leslie Bucheit, MS, Baptist Breast Center; 6. Samantha Baxter, MS, CGC, Genelnsight – Partners Healthcare; 7. Briana Sawyer, MS, LCGC, John A. Moran Eye Center; 8. Kelly East, MS, CGC, HudsonAlpha Institute for Biotechnology; 9. Carrie Atzinger, MS, CGC, Cincinnati Children's Hospital Medical Center

- Identify and describe resources utilized by individuals who have been hired into a genetic counseling position in the past three years.
- Review the current landscape of career opportunities, including insight into developing new genetic counseling positions.
- Outline tips for navigating human resources, including characteristics of wellwritten CVs and cover letters and negotiating a contract.

Submitted by: Student/New Member SIG

BOS Making a Difference: Case Management, Communication and Professional Experiences within Laboratory Genetic Counseling 0.15 CEU

1. Jacquelyn D. Riley, MS, CGC, Cleveland Clinic; 2. Christine Miller, MS, LCGC, ARUP Laboratories; 3. Karen E. Wain, MS, CGC, Mayo Clinic; 4. Melanie Meyer, MS, CGC, Pinon Perinatal

- Describe how laboratory genetic counselors contribute to patient care and effective health care delivery by promoting appropriate test utilization, maximizing the quality of test interpretation and serving as a customer liaison.
- Illustrate situations in which laboratory genetic counselors utilize psychosocial skills to improve communication with healthcare providers and to optimize patient care.
- Compare the experiences and career growth of genetic counselors that have transitioned from clinical to lab practice, moved from laboratory to a clinical setting, opted for laboratory counseling as an initial career choice and entered a lab as the first genetic counselor.

Submitted/Sponsored by: Industry SIG

304 Communicating with Your Children Regarding Risk for Adult Onset Disorders

0.15 CEU

1. Susan Peterson, PhD, MPH, The University of Texas MD Anderson Cancer Center; 2. Karen Hurley, PhD, Private Practice and Consulting

- Identify issues facing parents who are considering or planning for communicating information to their children about a familial gene mutation associated with increased risk for adult onset disorders.
- Describe barriers parents may face in having these discussions with their children and approaches to overcome those barriers.
- Identify strategies, tips and resources available to help parents make these discussions as comfortable and effective as possible.

Submitted/Sponsored by: Cancer SIG

305 Linking the Clinical Silos of Gastroenterology and Genetic Counseling

0.15 CEU

1. Sheila R. Solomon, MS, CGC, GeneDx; 2. Andrew Stolz, MD,FACG, University of South Carolina; 3. Jean Paul Achkar, MD, FACG, Cleveland Clinic; 4. Carol Burke, MD, FACG, Cleveland Clinic

- Identify the role a genetic counselor can serve in a gastroenterology clinic.
- Recognize screening techniques for hereditary liver disease and polyposis syndromes.
- Explain the value of SNP testing for patients with inflammatory bowel disease.

Exploring Commonly Occurring but Regularly Unrecognized Ethical Grey Areas in Research 0.15 CEU

1. Jehannine Austin, PhD, CCGC, CGC, University of British Columbia; 2. Laura Hercher, MS, CGC, Sarah Lawrence College; 3. Sharon Aufox, MS, CGC, Northwestern University

- Discuss a researcher's responsibilities to the various stakeholders in their research related endeavor, including the funding agency, home institution, participants, collaborators, other researchers and the general public.
- Identify commonly occurring everyday situations where the existing culture in a research group or institution may be in conflict with principles related to responsible conduct of research.
- Develop an appreciation of how some of these issues can be managed.

Plenary Sessions

9:45 am - 11:30 am

307 The Fragile X Newborn Screening Project 0.075 CEU

1. Myra I. Roche, CGC, University of North Carolina-Chapel Hill

- Describe the spectrum of phenotypes predicted by a positive FMR1 newborn screen and the implications for extended relatives.
- Describe the types of information needed to obtain informed consent when offering FMR1 testing to parents of newborns under a research protocol.
- Summarize the challenges inherent in obtaining informed consent for newborn genetic testing that generates both diagnostic and incidental results.

308 Professional Issues Panel 0.10 CEU

1. John Richardson, Director of Government Relations, NSGC; 2. Joy Larsen Haidle, MS, CGC, Humphrey Cancer Center

- Review the current status of NSGC's federal advocacy efforts to obtain reimbursement for services performed by genetic counselors.
- Monitor the progress of NSGC's state licensure efforts.
- Describe the current climate with regard to third party payer coverage of genetic counseling services.
- Identify strategies NSGC is using in approaching payers to cover and promote genetic counseling services.

Sponsored Lunch Session

12:30 pm – 2:00 pm

309 Myriad: Hereditary Cancer Testing Update

1. Benjamin Roa, PhD, Myriad Genetic Laboratories, Inc; 2. Julie Eggington, PhD, MS, Myriad Genetic Laboratories, Inc.

- Describe different variant classification methodologies.
- Assess the strengths and limitations of different variant classification approaches.
- Evaluate the data and statistics that a lab uses to support a variant classification.

Sponsored by: Myriad Genetic Laboratories

Plenary Session

3:45 pm - 4:45 pm

C15 The \$1,000 Genome, the \$1 Million Interpretation 0.10 CEU

1. Kevin Davies, PhD, Bio-IT World/The \$1,000 Genome

- Review the evolution of next-generation sequencing technology since the Human Genome Project, charting the increase in throughput and quality, as the price has plummeted towards the mythic \$1,000 pricepoint.
- Illustrate the profound impact of exome and whole-genome sequencing in the clinic over the past two to three years, from ending diagnostic odysseys for pediatric patients to changing the therapeutic regimens of cancer patients and discuss the impact of this for the future of diagnostics.
- Contrast the rise of genome interpretation tools and strategies from a variety of academic and industry sources and relate their use to the genetic counseling profession.

Plenary Session

5:30 pm – 6:30 pm

S16 Jane Engelberg Memorial Fellowship (JEMF) Presentation 0.10 CEU

1. Laura Conway, PhD, CGC, Arcadia University; 2. 2014 JEMF Awardee – Flavia Malheiro Facio, MS, CGC; 3. Blythe Crissman, MS, CGC, Duke University; 4. Kathryn Sheets, MS, CGC, Duke University; 5. Sara Fitzgerald-Butt, MS, CGC, Nationwide Children's Hospital

- Describe the purpose and mission of the Jane Engelberg Memorial Fellowship.
- Provide an interim report on original research into the experience and needs of individuals receiving a prenatal diagnosis of Down syndrome.
- Identify the demographic variables and Health Beliefs Model constructs that are correlated with information seeking in adolscents and young adults with congental heart defects.

Sponsored Evening Session

6:45 pm – 8:15 pm

617 Multi-Gene Panels: A New Approach to Inherited Cancer and Neuropathy Genetic Testing 0.10 CEU

1. Scott Weissman, MS, CGC, GeneDx; 2. Lauren M. Yackowski, MS, CGC, GeneDx; 3. Courtney Downtain, MS, CGC, GeneDx

- Recognize the benefits, limitations and genetic counseling considerations of multi-gene testing panels for genetically heterogeneous disorders.
- Discuss the complexities of result interpretation in the realm of multi-gene testing panels using neuropathies and inherited cancers as an example.
- Identify patients who can benefit from genetic testing using a multi-gene panel and review strategies to establish criteria to decide the appropriate testing candidates.

Sponsored by: GeneDx

Saturday, October 12

Sponsored Breakfast Session

7:00 am - 7:45 am

401 Non-Invasive Prenatal Testing (NIPT). Incorporating NIPT into Clinical Practice: Review of the Literature

- 1. Sallie McAdoo, MS, CGC, Natera, Inc.
- Compare and contrast the different testing methods for Non-Invasive Prenatal Testing (NIPT) in the US.
- Describe the complexities a vanishing twin pregnancy will have on the various NIPT methods.
- Appraise evidence for offering NIPT as a primary vs. secondary screen and for offering to high risk groups vs. all pregnant women.

Sponsored by: Natera, Inc

Dr. Beverly Rollnick Memorial Lecture

8:00 am – 9:00 am

402 Navigating the Genome in Clinical Care and Public Health: The Indispensible Role of the Genetic Counselor

0.10 CEU

- 1. James P. Evans, MD, PhD, University of North Carolina at Chapel Hill
- Discover the clinical situations in which genome-scale sequencing holds the most promise.
- Recognize how public health implementation of genomics may be realized and how it differs from clinical applications.
- Recognize some of the challenges to its realistic implementation, including policy challenges.

Sponsored by: The Dr. Beverly Rollnick Memorial Fund

Late-breaking Plenary Session

9:30 am - 10:30 am

403 The Genomic Sequencing and Newborn Screening Disorders Program: Exploring a New Era in Newborn Screening 0.10 CEU

0.10 CEU

Barbara Koenig, PhD, UCSF School of Nursing, Institute for Health & Aging
 Learning objectives TBA.

Educational Breakout Sessions

10:45 am - 12:15 pm

404 Passing the Torch: Developing a Genetic Counseling Preceptorship

0.15 CEU

1. Rebecca Hulinsky, MS, LCGC, Veterans Health Administration; 2. Allison Schreiber, MS, CGC, Cleveland Clinic; 3. Deborah E. Hartzfeld, MS, LCGC, Genomic Medicine Service - Department of Veterans Affairs; 4. Ryan Noss, MS, Cleveland Clinic

- Identify a process to create a preceptorship plan for new employees within your department.
- Analyze current models for post graduation preceptorship, as well as peer to peer mentorship/education opportunities.
- Develop strategies for cultivating colleagues' development as new genetic counselors.

405 Depression and Psychosis in the Prenatal Setting: A Genetic Counselor's Practical Guide

0.15 CEU

1. Angela Inglis, MSc, CCGC, CGC, University of British Columbia; 2. Victoria Hendrick, MD, Olive View UCLA Medical Center; 3. Catriona Hippman, MSc, CGC, BC Women's Hospital & Health Centre/University of British Columbia

Describe the signs and symptoms of perinatal mental illnesses, such as postpartum depression and postpartum psychosis; both from the perspective of a healthcare provider and the lived experience of individuals with perinatal mental illnesses.

- Discuss risk factors and recurrence risks for perinatal mental illnesses in the context of personal and family histories.
- Outline options for screening and management of perinatal mental illnesses, including an update on current knowledge of the teratogenic potential of psychiatric medications, with reference to clinical guidelines.

Submitted by: Prenatal SIG and the Psychiatric SIG Sponsored by: Prenatal SIG

406 The Whole Exome Network: How Changes in Sequencing Technology Influences Both Providers and Patients

0.15 CEU

1. Amy Daly, MS, CGC, GeneDx; 2. Wendy K. Chung, MD, PhD, Columbia University; 3. Dana Nieder, Uncommon Sense

- Examine the evolving role of the genetic counselor in the laboratory.
- Discuss the new needs of the genetics clinic in the era of whole exome and genome sequencing.
- Appreciate the impact of whole exome and genome sequencing on the patient and their family.

407 Site of Ovarian Cancer Initiation, Discussion of the Evidence of Fallopian Tube Cancer Versus Endometriosis and Management Options for Hereditary Cancer Families 0.15 CEU

.15 CEU

1. Amie M. Blanco, MS, LCGC, University of California, San Francisco Cancer Risk Program; 2. Lee-may Chen, MD, University of California, San Francisco Helen Diller Family Comprehensive Cancer Center; 3. Joseph Rabban, MD, MPH, University of California, San Francisco School of Medicine

- Describe the evidence for and have better understanding of the origin of ovarian cancer.
- Describe the new and upcoming surgical approaches for ovarian cancer prevention, such as salpingectomy with ovarian preservation versus bilateral salpingo oophorectomy with or without hormone replacement therapy.
- Produce a better understanding and overview of past, present and future clinical trials for patients at high risk of ovarian cancer.

Submitted/Sponsored by: Cancer SIG

408 Lessons from Clinical Trials of Genetic Counseling 0.15 CEU

1. Barbara B. Biesecker, PhD, MS, CGC, National Human Genome Research Institute/National Institutes of Health; 2. Jehannine Austin, PhD, CGC, University of British Columbia; 3. Rachel Nusbaum, MS, CGC, Georgetown Lombardi Comprehensive Cancer Center; 4. Jessica L. Waxler, MS, CGC, Medical Genetics, Massachusetts General Hospital

- Review studies designed to evaluate the impact of genetic counseling across diverse specialties.
- Discuss the unique challenges and opportunities to counseling within a randomized controlled trial.
- Demonstrate ways to incorporate data from the presented research to the practice of genetic counseling.

Submitted by: Research SIG and Cancer SIG

Sponsored by: Cancer SIG

Sponsored Lunch Session

12:30 pm - 2:00 pm

409 Harnessing Next Generation Sequencing for Comprehensive and Affordable Patient Care

0.10 CEU

1. Kathryn A. Phillips, PhD, University of California, San Francisco; 2. Samuel P. Yang, MD, FAAP, Shodair Children's Hospital; 3. Randy Scott, PhD, InVitae Corporation

- Provide brief background information on new technologies in genetic testing and costs, with particular focus on how comprehensive testing can shift the current paradigm in clinical genetic patient care.
- Provide clinical examples of integration of multiplex genetic testing into routine patient care.
- Understand trends in the application of genetic testing using NGS and what we need to do as a genetic community to ensure that genetic testing can be applied broadly.

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Concurrent Papers

	Friday, October 11 – Anaheim Convention Center			
	 311 - Adult and Cancer 1. Discuss genetic conditions seen in adult patients. 2. Identify the latest developments in evaluation and testing for inherited cancer predispositions. 3. Discuss genetic issues related to common complex diseases. 	 312 - Counseling & Psychosocial Issues 1. Describe common psychosocial and counseling techniques in genetic counseling sessions. 2. Discuss patient concerns and quality of life. 	 313 - Education 1. Describe approaches and issues in the education of genetic counseling students. 2. Discuss genetic education of lay and professional groups. 	 314 - Genetic Testing I 1. Discuss latest developments in the field of diagnostic testing and test interpretation. 2. Discuss potential testing opportunities in the genetics clinic and issues related to genetic testing.
	Room 207 BCD	Room 201 ABC	Room 204 B	Room 303 ABC
2:00 pm – 2:15 pm	Cancer Genetic Provider Practice following Negative BRCA Founder Mutation Testing in Ashkenazi Jewish Individuals N. Petrucelli	Assessment of Genetic Counselors Cultural Competency <i>K. J. Vogel</i>	Barriers Impacting the Utilization of Supervision Techniques in Genetic Counseling <i>A. Masunga</i>	Analysis of a Comprehensive 101 Nuclear Gene Panel for Mitochondrial Disorders <i>A. Shanmugham</i>
2:15 pm – 2:30 pm	Health, Social and Daily Living Skills: An Assessment of Adults with Down Syndrome <i>T. Jacobson</i>	Consent for Genome-Wide Sequencing Research in Families with Genetic Disease: The Emerging Issue of Incidental Findings <i>J. Bollinger</i>	Comparison of Genetic Counseling Student Descriptions of Supervisors and Published Preliminary Supervision Competencies in Genetic Counseling <i>I. MacFarlane</i>	First Case Report of Fetal Monosomy 13 Detected by Noninvasive Prenatal Testing: Advantage of Whole Genome Massively Parallel Sequencing Approach versus Targeted Sequencing Approach for Delineating Aneuploidy Status <i>A. Sachs</i>
2:30 pm – 2:45 pm	Implementation of Risk Assessment Tool for Hereditary Colorectal Cancer and Lynch Syndrome in Gastroenterology Clinic for Referral to Genetics <i>C. Hiles</i>	Depression and Anxiety Experienced by Genetic Counselors <i>K. Shipley</i>	Measuring Genetic Knowledge: Validation of a Brief Survey Instrument for Adolescents and Adults <i>S. Fitzgerald-Butt</i>	Initial Commercial Results from a Noninvasive Prenatal Aneuploidy Test that Employs Massively Multiplexed Targeted PCR Amplification and Sequencing of 19,488 Single-Nucleotide Polymorphisms <i>M. Savage</i>
2:45 pm – 3:00 pm	Prevalence of Lynch Syndrome and Hereditary Breast and Ovarian Cancer among Patients with Primary Endometrial and Primary Ovarian Cancers V. Raymond	Epilepsy in Pregnancy: Current Practices of Prenatal Genetic Counselors <i>N. Klainer</i>	My46: A Genetic Counseling Enhancer <i>S. Jamal</i>	Multiple Heteroplasmies are Associated with Nuclear Defects <i>L. Susswein</i>
3:00 pm – 3:15 pm	Provision of Cardiovascular Genetic Counseling Services: Current Practice and Future Directions <i>A. Somers</i>	Patient Reported Differences in <i>BRCA</i> Pretest Counseling Based on Ordering Provider Type <i>D. Cragun</i>	Peer-to-Peer Education: Development of an Interactive Educational Course on Noninvasive Prenatal Testing for Clinical Genetic Counselors by Laboratory Genetic Counselors <i>A. Swanson</i>	The Clinical Utility of a Single Nucleotide Polymorphism Microarray in Patients with Epilepsy at a Tertiary Medical Center S. Hrabik
3:15 pm – 3:30 pm	The Heart of the Matter: Identifying Factors Associated with Uptake of Genetic Services for Hypertrophic Cardiomyopathy <i>A. Khouzam</i>	South African Genetic Counseling Providers' Perceptions of Genetic Counseling Goals and Cultural Barriers to Goal Attainment: A Validity Study of the Reciprocal-Engagement Model <i>E. Sandberg</i>	Perceptions of Self-Efficacy in Select Supervision Competencies among Clinical Supervisors in Genetic Counseling <i>S. Finley</i>	The Yield of Clinical Genetic Testing for Isolated Left Ventricular Noncompaction <i>A. Shikany</i>

	Saturday, October 12 – Anaheim Hilton			
	 410 - Cancer 1. Identify the latest developments in evaluation and testing for inherited cancer predispositions. 2. Discuss issues that are specific and unique to individuals with an inherited cancer predisposition. 	 411 - Pediatrics and Pre- and Perinatal 1. Discuss the latest developments in prenatal testing and prenatal genetic counseling. 2. Discuss the latest developments in genetic counseling for pediatric patients and their families. 3. Describe the attitudes and perceptions of patients and providers in the prenatal clinic. 	 412 - Professional Issues 1. Discuss the professional and personal experiences of genetic counselors. 2. Identify potential future opportunities for the field of genetic counseling. 	 413 - Genetic Testing II 1. Discuss latest developments in the field of diagnostic testing and test interpretation. 2. Discuss potential testing opportunities in the genetics clinic and issues related to genetic testing.
	Room Huntington ABC	Room Avalon	Room Laguna AB	Room El Capitan
2:00 pm – 2:15 pm	Appreciating the Broad Clinical Symptoms in <i>SMAD4</i> Loss-of-Function Mutation Carriers: A Multi-Center Chart Review <i>K. Wain</i>	Germline Mosaicism in X-linked Periventricular Heterotopia: Implications for Genetic Counseling <i>M. LaPointe</i>	Development of Promotion Guidelines for a Genetic Counselor Career Ladder <i>M. Walker</i>	ClinVar: A New Resource Providing Unrestricted Access to Genotype-Phenotype Relationships <i>A. Malheiro</i>
2:15 pm – 2:30 pm	Implementation of Tumor Testing for Lynch Syndrome in Endometrial Cancers at a Large Academic Medical Center J. Moline	How Should I Tell my Child? Disclosing the Diagnosis of Sex Chromosome Aneuploidies <i>A. Dennis</i>	Health Information Technology (HIT) in Clinical Genetic Counseling: The HIT Survey Project <i>M. Doerr</i>	Has the Implementation of Newborn Screening Impacted Knowledge about Sickle Cell and Personal Trait Status? <i>A. Miller</i>
2:30 pm – 2:45 pm	Mismatch Repair Deficient Tumors Lacking Known Sporadic Causes: Are They all Due to Lynch Syndrome? <i>K. Dempsey</i>	Knowledge, Understanding and Coping Strategies of Siblings of Children with 22q11.2 Deletion Syndrome <i>R. Okashah</i>	Insight into the Successful Billing and Reimbursement for Genetic Counseling Service at a Single Prenatal Clinic <i>E. Cole</i>	Incidental Findings in Whole Exome Sequencing <i>A. Daly</i>
2:45 pm – 3:00 pm	Searching for Recurrent Mis- Match Repair Mutations in Hispanic Patients <i>C. Espenschied</i>	Perceptions and Uptake of Noninvasive Prenatal Testing among Latina Women <i>R. Farrell</i>	Lessons Learned Using Genetic Counselor Driven Online Research Recruitment <i>B. Smith-Packard</i>	Lessons Learned and Practical Tools for Genetic Test Utilization Management: An Update on the Seattle Children's Hospital Experience <i>J. Conta</i>
3:00 pm – 3:15 pm	The Spectrum of Tumors in a Small Series of Adult and Pediatric Oncology Patients with <i>DICER1</i> Mutations <i>K. Schneider</i>	Successful Use of Whole Exome Sequencing in the Prenatal Setting: Should This Be an Expanded Application? <i>M. Smith</i>	Translation and Validation of a Spanish-Language Genetic Literacy Screening Tool <i>S. Rodriguez</i>	Preferences for Results Delivery from Whole Exome Sequencing/Whole Genome Sequencing: Results from ClinSeq Focus Groups <i>C. Young</i>
3:15 pm – 3:30 pm	Timing of Prophylactic Gastrectomy and Presence of Occult Diffuse Gastric Cancer in a Family with Hereditary Diffuse Gastric Cancer and Documented <i>CDH1</i> Mutation <i>J. Polk</i>	The Effect of Genetic Testing on Parental Experience with Diagnosis and Management of Disorders of Sex Development <i>E. Hendricks</i>	Utilization and Perceptions of Healthcare in Duchenne Muscular Dystrophy: An Opportunity for Genetic Counselors to Expand Services <i>R. McGee</i>	The Importance of Including Parental Information in Noninvasive Prenatal Aneuploidy Testing: Three Case Studies <i>B. Pettersen</i>

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Norton, M., et al. Am J Obstet Gynecol. (2012), doi:10.1016/j.ajog.2012.05.021.
 Nicolaides KH, et al. Am J Obstet Gynecol. 2012;207:374.e1-6.
 Song K, et al. J Matern Fetal Neonatal Med. (2013), DOI: 10.3109/14767058.2013.770464.

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Genetic Counselor/Research Coordinator Opportunities

Geisinger Health System (GHS) is recruiting multiple experienced genetic counselors to join our research, cancer, genetics and clinical translation team. Geisinger has an institutional commitment to research and a focus on personalized medicine.

About the Positions

- Join a dynamic stimulating team on the forefront of genomic medicine
- Work with national leaders in genetic counseling, medical genetics and genomic research
- Supportive career recognition as a valued contributor

Current opportunities exist in:

Cancer Clinical Services and Research

Leadership opportunity for Senior Genetic Counselor to provide developmental leadership for an Oncology clinical genetics and research program. Geisinger's Oncology Department is collaborating with Genomic Medicine to expand clinical services and facilitate translation of the rapidly emerging field of cancer genomics into clinical care.

Whole Genome Sequencing

Geisinger has launched a clinical research program using whole genome sequencing for children and adults with undiagnosed conditions. Genetic counselors will help identify patients and develop genetic counseling models

Autism/Developmental Delay

This regional autism/developmental delay, family-focused center that provides diagnosis, treatment, education support and family support. The center will use genetic testing to support targeted treatment and to focus research initiatives.

Prenatal MicroArray Testing

Geisinger is working with Columbia University on phase II of the evaluation of prenatal microarray testing. Geisinger has developed an online resource center to provide information to the clinical community and families.

Other Projects

Geisinger research genetic counselors are also involved in the International Collaboration for Clinical Genomics (ICCG), formerly the Standards for Cytogenomic Arrays (ISCA) Consortium, , the NIH funded project to determine which genes and variants are clinically relevant, PA Cure projects on abdominal aortic aneurysms, eMERGE Consortium, family history initiatives, and the Simons Variation in Individuals Project (VIP).

Geisinger is attending the NSGC Annual Education Conference from October 9-11, 2013. Meet us at Booth # 207 to discuss opportunities in person.

Discover for yourself why Geisinger has been nationally recognized as a visionary model of integrated healthcare. For more information, please visit , please visit Join-Geisinger.org or contact: Jocelyn Heid, Manager, Professional Staffing, at 1-800-845-7112 or jheid1@geisinger.edu.

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Posters

Posters with Authors

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Objective:

Describe the most recent research, techniques and approaches in the field of genetic counseling.

216

Even Number Poster Presentations

Thursday, October 10, 6:00 pm – 7:00 pm 0.10 CEU

310

Odd Number Poster Presentations

Friday, October 11, 12:45 pm – 1:45 pm 0.10 CEU

Access & Service Delivery

- 1 Independent Delivery of Pediatric Genetic Counseling Services: Pilot Clinic in Utah *K. Dent*
- 2 Exploring Barriers to Payor Utilization of Genetic Counselors *N. Doyle*
- 3 Billing, Reimbursement and Barriers of the Genetic Counseling CPT Code: The North Carolina Experience *R. Fowler*
- 4 Why Do Individuals Choose Not to Attend Cancer Genetic Counseling Appointments? An Analysis of Patient and Scheduler Comments *A. Lauritzen*
- 5 It May Not Be Behind, but Different: How to Understand the Situation of Genetics Services and Genetic Counseling in a Non-US Country *C. Tamura*
- 6 Application of the Precaution Adoption Process Model to Evaluate Barriers to Pursuing Cancer Genetic Counseling Services *R. Tryon*
- 7 Development and Implementation of a Mathematical Model to Predict Genetic Counselor Need in a Growing Oncology Setting *B. White*

Adult

- 8 Nonsyndromic Retinitis Pigmentosa Due to *BBS2* Mutations *M. Marino*
- 9 Smokers' Knowledge, Mental Representations and Risk Perceptions of Genetic Contributions To Smoking *G. Reiser*
- **10** The Impact of Living with Klinefelter Syndrome: A Qualitative Exploration of Adolescents and Adults *A. Turriff*

- **11** Homozygosity for Huntington Disease with Only One Parent Known Affected: What's the Explanation? *W. Uhlmann*
- **12** Exploring the Influence of Religiosity and Spirituality on the Ability to Cope with Adverse Genetic Testing Results, and the Impact on Emotional Health Following Genetic Risk Disclosure for Alzheimer's Disease in the REVEAL Study *E. Vaccari*

Cancer

13 Utilization of Magnetic Resonance Imaging Screening for Breast Cancer at the University of Michigan Health System *M. Bailey*

- 14 Outcomes of Contacting Research Participants with Tumor Studies Suggestive of Lynch Syndrome *B. Batte*
- **15** Early-Onset Colon Cancer as the Presenting Feature of Cowden/*PTEN* Hamartoma Syndrome, and the Use of a Next-Generation Cancer Risk Panel for Diagnostic Evaluation *R. Bennett*
- 16 Preliminary Analysis of Patient Reported Experiences of Living with Pancreatic Cancer Risk *E. Brown*
- **17** Adherence to Cancer Risk Management Recommendations among Unaffected *BRCA* Mutation Carriers *A. Buchanan*
- 18 BROCA and ColoSeq Cancer Risk Panels: Four Cases with Unexpected Mutations *A. Jacobson*
- **19** Recontacting Patients Seen in a Hereditary Cancer Risk Assessment Program to Offer New Genetic Testing Technologies: The Experience of a Community-Based Medical Center *K. King-Spohn*
- 20 Screening Breast Magnetic Resonance Imaging Eligibility and Accessibility: A National Survey *L. Lynch*
- 21 Attitudes of Genetic Counselors and Pancreatic Cancer Centers of Excellence Regarding *PalB2* Genetic Testing in Clinical Practice *M. Marshall*
- 22 The Integration of Next-Generation Sequencing Panels in the Clinical Cancer Genetics Practice: An Institutional Experience *C. Mauer*
- 23 Prevalence of Lynch Syndrome Mutations in Patients with Colorectal and Endometrial Cancer Based on a Decade of Diagnosis *W. Mendonca*
- 24 The Impact of Family History on Medullary Thyroid Cancer in Patients with Multiple Endocrine Neoplasia Type 2A *N. Mohrbacher*

- 25 Cancer Worry in Orthodox Jewish Women with and without a Family History of Cancer in the Greater Detroit Area *T. Paling*
- 26 Characterization of Families Heterozygous for the *BARD1* c.1977A>G Pathogenic Mutation *T. Pesaran*
- 27 Unrealistic Optimism in High-Risk Women - An Unrecognized Concern? J. Quillin
- 28 The Effect of Genetic Counseling on Uptake of Risk-Reducing Ovarian Surgery: A Randomized Controlled Study *R. Resta*
- **29** Bilateral Retinoblastoma Due to Post-Zygotic Somatic Mosaicism *K. Schneider*
- **30** Challenges with High-Risk Screening Using Patient Self-Reported Personal and Family History *E. Silver*
- **31** The Sharing Clinical Reports Project (sharingclinicalreports.org): A Volunteer Effort to Place *BRCA* and *BRCA/2* Variants with Pathogenicity Assessments in the Public Domain *L. Swaminathan*
- **32** Genetic Testing Practice Patterns of Endocrine Surgeons for Apparently Sporadic Pheochromocytomas and Paragangliomas *S. Witherington*

Cardiovascular

- **33** Prevalence of Aortopathy in Patients with Hereditary Hemorrhagic Telangiectasia *B. Heald*
- **34** Aortopathy in the 7q11.23 Microduplication Syndrome: A Case Series *A. Parrott*
- **35** Bicuspid Aortic Valve and Aortic Root Dilation in a Family with Kabuki Syndrome: A Case Report *B. Psensky*
- **36** Adult-Onset Dilated Cardiomyopathy as the Primary Manifestation of Mitochondrial m.3243A>G Mutation with Heart-Specific High Mutation Load *A. Shanmugham*

Counseling/Psychosocial Issues

- **37** Parents' Experiences of Receiving Their Child's Genetic Diagnosis: A Qualitative Study to Inform Clinical Genetics Practice *S. Ashtiani*
- **38** An Exploration of Families' Experiences Regarding a Comorbid Diagnosis of Neurofibromatosis Type 1 and Autism Spectrum Disorder in Their Child: Guiding Screening and Disclosure Practices *L. Baret*

Posters

- **39** Genetic Counselling in British Sign Language: Discussion of a Complex, Fast-Changing Topic in a Visual-Spatial Language *R. Belk*
- **40** Opinions on Communicating Hereditary Cancer Information within the Family: The If, When and How of *BRCA1* and *BRCA2 C. Bell*
- 41 Diagnoses across Borders: Experiences Communicating Cancer Diagnoses Amongst U.S. Latino Transnational Families *N. Channaoui*
- **42** Perceptions of Breast Cancer-Related Stigma and Genetic Knowledge among Latina Women: El Mejor Entendimiento del Miedo *J. Cognetti*
- **43** Family Communication: Experiences of Young Adults with Duchenne Muscular Dystrophy *A. Dougherty*
- 44 Quality of Life for Families with a Child with CdLS *A. Egense*
- **45** Exploring Informational Coherence in Genetic Counseling Visits *L. Erby*
- **46** Young Women Living with Mayer-Rokitansky-Küster-Hauser Syndrome: Disclosure to Peers in Adolescence and Young Adulthood *M. Ernst*
- **47** Patients' Goals and Perceived Outcomes of Genetic Counseling Sessions in Cape Town, South Africa: A Validation Study of the Reciprocal-Engagement Model *S. Goettl*
- **48** Intersex Differences: Implications for Genetic Counseling Practice Guidelines *N. Harkavy*
- **49** Late Onset Lysosomal Storage Disorders: Counseling Challenges *J. Hesemann*
- 50 Application of the National Society of Genetic Counselors Practice Guidelines for Hereditary Breast and Ovarian Cancer Genetic Counseling to Male Patients *K. Joseph*
- 51 Siblings of Children with Neurodevelopmental Disabilities: An Investigation of Sibling Intra-familial Relationships *K. Lammers*
- 52 Knowledge and Expectations of Support People in Prenatal Genetic Counseling Sessions *M. McDougle*
- **53** Factors Associated with Parental Stress in the Diagnosis of Klinefelter Syndrome *J. Miles*
- 54 Challenges of Living with Frontotemporal Dementia: Understanding the Perspective of the Affected Individual through Blog Content Analysis *W. Mu*

- 55 Perspectives of Adolescents Regarding Their Genetic Counseling Experience: A Qualitative Study *A. Pichini*
- 56 Genetic Counseling Effectiveness and its Psychological Impact in the Pediatric Hematology and Oncology Setting *J. Sabatino*
- **57** Facilitating Decision-making in Prenatal Genetic Counselling: Perspectives from Patients and Genetic Counselors *D. Salema*
- 58 Disclosure of Vision Loss in the Workplace: Exploring the Decision Making Process *L. Sharma*
- 59 Identification of Themes in the *BRCA1* and *BRCA2* Genetic Testing Process: A Patient's Perspective *K. Smith*
- 60 Living in Lynch Syndrome Limbo: Understanding the Meaning of Uncertain Genetic Test Results *I. Solomon*
- 61 The Use of Photographs for Genetic Counseling about Down Syndrome *K. Stoll*

Educatior

- 62 Evaluating Utilization of Educational Materials in Communicating about Lynch Syndrome to At-Risk Relatives *K. Dilzell*
- **63** Assessing Genetic Counseling Training Programs: Preparing Students for the Role of Laboratory Genetic Counselor *J. Handy*
- 64 A New Model for Promoting Undergraduate Interest for a Genetic Counseling Career J. Kianmahd
- **65** MedGen: Improving Access to Medical Genetics Information at the National Center for Biotechnology Information *A. Malheiro*
- 66 Update on the National Institutes of Health Genetic Testing Registry *A. Malheiro*
- 67 Assessing Deaf Awareness: Training and Attitudes of Recent Genetic Counseling Graduates *H. Nagakura*
- **68** Future Genetic Counseling Training Content and Educational Methods *M. Osak*
- 69 Creating an Online Community and Educational Tool *L. Pugliesi*
- 70 Georgia Healthcare Provider Knowledge, Practice Patterns and Education Needs Regarding Hereditary Breast and Ovarian Cancer E. Schmitt

- 71 Supervisory Styles and Satisfaction: Genetic Counseling Student and Graduate Views *C. Shuss*
- 72 Finding Common Language: Assessing the Use of the Term Intellectual Disability in Clinical Practice *N. Spivak*
- 73 Assessment of the Genetic Counseling Cultural Competence Toolkit Cases Module *N. Warren*
- 74 Implementation of a Service Learning Assignment for Genetic Counseling Students *K. Wusik*

Genetic Testing

- 75 Understanding and Preferences: Informed Consent for Genetic Research in Individuals with Sickle Cell Disease *M. Barr*
- **76** Prevalence of the Beta-S Gene among Socio-economically Disadvantaged Groups in Central India *A. Arjunan*
- 77 Mutation Detection Rate of Exome Sequencing Using Next Generation Sequencing Panel Results as a Reference *S. Bhide*
- **78** The p.Asp982Gly Missense Mutation in *LAMB3* is Unlikely to Cause Epidermolysis Bullosa *L. Briere*
- 79 Fragile X AGG Analysis of More than 1000 Mother-to-Child Transmissions Provides Improved Risk Estimates for Full Mutation Expansions J. Coppinger
- 80 Motivating Factors for Genetic Counselors to Offer Additional Testing Beyond *BRCA1* and *BRCA2 K. Fink*
- 81 High Genetic Heterogeneity Observed When Sequencing Nuclear Genes for the Diagnosis of Mitochondrial Disorders *J. Leighton*
- 82 Informatics-Based Molecular Karyotyping of Products of Conception: Focus on Molar Pregnancies *B. Pettersen* Withdrawn
- 83 Healthy Liveborn Following In Vitro Fertilization with Preimplantation Genetic Diagnosis for Incontinentia Pigmenti by Homolog Phasing with Concurrent 24-Chromosome Aneuploidy Screening *J. Saucier*
- 84 Impact of Cell-Free Fetal DNA Testing on Invasive Procedures Performed after a Positive Prenatal Screen *F. Shah*
- 85 Microsatellite Instability Testing in Rectal Cancer: Tissue May Be an Issue D. Sturgeon Withdrawn

Genomic Sequencing & Personalized Genomics

- 86 Patient Experience with Exome Sequencing *G. Beek*
- 87 Developing an Individualized Medicine Clinic *K. Johnson*
- 88 Likelihood of Use of a New Adult Genetic Risk Assessment Clinic D. Petry
- **89** Physicians' Perceptions of the Elements, Barriers and Availability of Personalized Medicine *K. Petersen*
- **90** Community-based Primary Care Providers' Awareness, Experience and Views on Personalized Genomic Risk Testing *K. Pyrtel*
- **91** Behind the Whole Exome Sequencing Curtain: Phenotypic Information and the Variant Analysis Pipeline *N. Vena*
- **92** Disease Diagnosis by Exome Sequencing: Issues Hampering Causative Variant Discovery *G. Chandratillake*
- **93** Lessons Learned from a Year of Clinical Whole Exome Sequencing *A. Fuller*
- **94** Finding the Clinical Answer in Genomic Sequence: Narrowing the Search Space for Disease-Causing Mutations *S. Garcia*
- 95 Whole Exome Sequencing: Assessing What Patients Want to Know *K. Hitch*
- **96** Engagement among Participants in the ClinSeq Genomic Sequencing Study as a Factor in Communication about Participation *G. Hooker*
- **97** Personal Genetic Testing: Predictors of Subsequent Healthcare Utilization *S. Kalia*
- **98** Early Experiences with Genetic Counseling for Incidental Findings from Whole Exome Sequencing *K. Lee*
- **99** Response Efficacy among Participants in the ClinSeq Genomic Sequencing Study *K. Lewis*
- **100** Genetics in the Era of Whole Exome/ Whole Genome Sequencing *K. Machini*
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The Jane Engelberg Memorial Fellowship

Genomic Sequencing in a Population of Healthy Infants: Exploring Parental Motivations, Expectations and Utilization of Sequencing Results

Flavia Malheiro Facio, MS, CGC

The Audrey Heimler Special Projects Award

Identification of Patient-centered Outcome Measures in Genetic Counseling

Stephanie Cohen, MS, CGC; Heather Zierhut, PhD, MS, CGC and the Genetic Counseling Outcomes Working Group

NSGC Leadership Awards

Natalie Weissberger Paul National Achievement Award Robert G. Resta, MS, CGC

New Leader Sharanya Kumaravel, MS, LCGC

Strategic Leader Elizabeth Kearney, MS, CGC, MBA

Outstanding Volunteer Mary E. Freivogel, MS, CGC

Cultural Competency Nancy Steinberg Warren, MS, CGC

International Leader Jehannine C. Austin, PhD, CHC/CCGC

Best Abstract Awards

Best Full Member Abstract Award

Significant Risk of New Mutations for Huntington Disease: CAG-Size Specific Risk Estimates of Intermediate Allele Repeat Instability

Alicia Semaka, MSc, PhD, CGC, CCGC

Beth Fine Kaplan Student Abstract Award

Prenatal Diagnosis and Attitude Towards Down Syndrome: Effects of Advancing Technologies

Emily Higuchi, MS

Cultural Competency Scholarship

Winners to be announced during the NSGC Leadership Awards Presentation

AEC Planning Subcommittee

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

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Networking Activities and Business Meetings

Welcome Reception

Sponsored by Quest Diagnostics

Wednesday, October 9 • 6:30 pm – 8:30 pm • Exhibit Hall A, Anaheim Convention Center

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 cash bar will be available.

State of the Society Address

Thursday, October 10 • 10:45 am – 11:30 am • Ballroom ABC, Anaheim Convention Center

Join President Rebecca Nagy, 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 2013.

ABGC Annual Business Meeting

Thursday, October 10 • 11:30 am – 12:30 pm • Ballroom ABC, Anaheim Convention Center

NSGC Annual Business Meeting

Friday, October 11 • 11:30 am – 12:30 pm • Ballroom ABC, Anaheim Convention Center

Incoming Presidential Address

Saturday, October 12 • 9:00 am – 9:30 am • Pacific Ballroom CD, Anaheim Hilton

Hear NSGC President Elect Jennifer Hoskovec, MS, CGC, as she introduces herself to NSGC members and outlines her vision for NSGC in 2014.

Meals and Breaks

Lunch will be on your own but there will be concessions in the back of the Exhibitor Suite on Thursday and Friday, located in Exhibit Hall A of the Anaheim Convention Center. There are many opportunities to meet and mingle with your colleagues throughout the conference. Make note of these scheduled breaks to network with your peers. Breakfast on Thursday and Friday will be in the Ballroom Foyer at the Anaheim Convention Center. Breakfast on Saturday will be in the Pacific Ballroom Foyer at the Anaheim Hilton.

Continental breakfast will be served Thursday through Saturday.

Schedule of Breaks:

Thursday, October 10

9:30 am - 9:45 am 12:30 pm - 2:15 pm 3:45 pm - 4:00 pm

Friday, October 11

9:30 am - 9:45 am 12:30 pm - 2:00 pm 3:30 pm - 3:45 pm **Saturday, October 12** (Anaheim Hilton) 10:30 am – 10:45 am

Reunion Information

Wednesday, October 9

University of Cincinnati Genetic

Counseling Program 8:30 pm Location: Buca di Beppo – Anaheim 11757 Harbor Boulevard Garden Grove, CA 92840

Thursday, October 10

Arcadia University Genetic Counseling Training Program

8:00 pm - 10:00 pm Location: The Mambo Terrace at Tortilla Jo's 1510 Disneyland Drive, Building A Downtown Disney District Anaheim, CA 92803

University of British Columbia, University of Toronto, University of Montreal and McGill University

7:45 - 10:00pm Location: The Catch 2100 E. Katella Ave., Suite 104 Anaheim, CA 92806

Icahn School of Medicine at Mount Sinai

8:30 pm - 10:30 pm Location: Hilton Anaheim Avalon A Room

Northwestern University

8:00 pm - 11:00 pm Location: Café Tu Tu Tango, The Outlets at Orange 20 City Boulevard West Orange, CA 92868

University of Maryland

7:00 - 10:00pm Location: TBA*

University of Pittsburgh

7:30 pm - 9:00 pm Location: Tangerine Grill & Patio 1030 W. Katella Ave. Anaheim, CA 92802

University of South Carolina

7:30 pm Location: TBA*

University of Wisconsin-Madison 7:30 pm - 10:00 pm Location: TBA*

Wayne State University Genetic Counseling Graduate Program 7:30 pm Location: TBA*

Friday, October 11

Anaheim, CA 92802

California State University, Stanislaus and University of California, Berkeley 8:30 pm Location: Roy's Restaurant Anaheim 321 West Katella Ave, Suite 105 **California State University, Northridge** 7:00 pm – 9:00 pm

2:00 pm – 9:00 pm Location: TBA*

Sarah Lawrence College Human

Genetics Program 6:30 pm - 8:30 pm Location: Hilton Anaheim AVILA A & B

University of Alabama at Birmingham

7:00 pm - 9:00 pm Location: Crossroads at House of Blues Anaheim 1530 S. Disneyland Dr. Anaheim, CA 92802

University of California, Irvine

7:00 pm - 10:00 pm Location: TBA*

Brandeis University

8:30 pm - 10:30 pm Location: Hilton Anaheim Catalina 1

University of Michigan

8:30 pm Location: TBA (For more information please visit www.hg.med.umich.edu/gcweb/events.)

University of Texas

Time: TBA* Location: TBA*

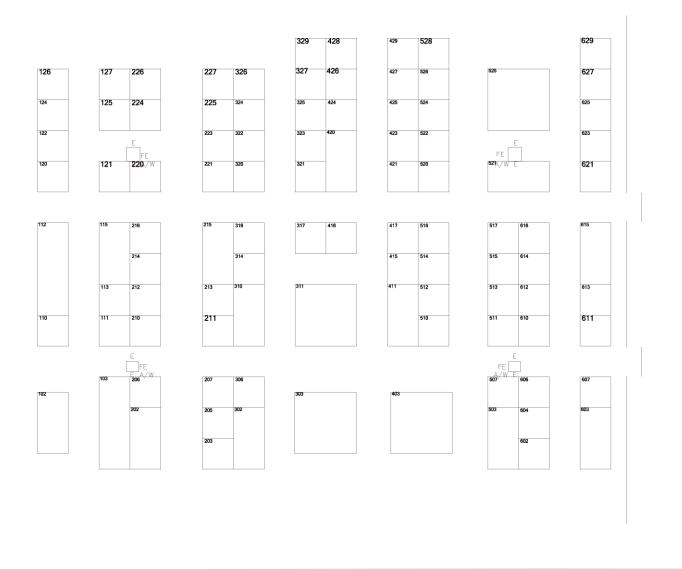
* Please visit the AEC Message Center board for location information.

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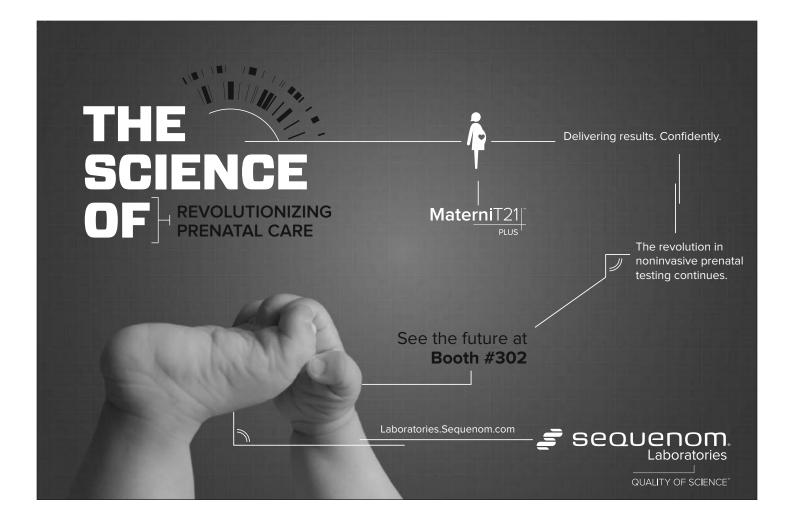
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4p- Suppport Group* Booth#: 325

Phone: 740.936.5095 Email: president@4p-supportgroup.org www.4p-supportgroup.org

The 4p- Support Group supports people with a 4th chromosomal abnormality and their family. Wolf-Hirschhorn is the main syndrome. We offer support networks, newsletters, national conferences and regional gatherings. Come see us at poster #119.

Ambry Genetics *Booth#: 525* Phone: 949.900.5500

Fax: 949.900.5501 www.AmbryGen.com

Ambry Genetics is a CLIA-certified laboratory focused on redefining genetic testing using NGS multi-gene panels and whole-exome sequencing. Cancer menu includes *BRCA* inclusive NGS-panels and other NGSpanels for ovarian, uterine, colorectal, pancreatic, renal and other cancers.

American Board of Genetic Counseling (ABGC) Booth#: 120

Phone: 913.895.4617 Email: info@abgc.net www.abgc.net

The American Board of Genetic Counseling (ABGC) is the credentialing organization for the genetic counseling profession in the United States and Canada. The ABGC certifies and recertifies qualified genetic counseling professionals. In this way the work of the ABGC protects the public and promotes the ongoing growth and development of the genetic counseling profession.

Ariosa Diagnostics Booth#: 615

Phone: 855.927.4672 Fax: 877.927.6151 Email: ClientServices@ariosadx.com www.ariosadx.com

Ariosa[®] Diagnostics, Inc. is a molecular diagnostics company committed to innovating together to improve patient care. The flagship product, the Harmony[™] Prenatal Test, is a safe, highly accurate and affordable prenatal test for maternal and fetal health.

ARUP Laboratories Booth#: 415

Phone: 800.522.2787 Email: clientservices@aruplab.com www.arup.com/genetics

A nonprofit enterpirse of the University of Utah, ARUP Laboratories is a leading national reference laboratory offering esoteric molecular assays and a comprehensive genetics test menu, including biochemical, cytogenetic and molecular genetic testing.

Association of Public Health Laboratories Booth#: 421

Phone: 240.485.2745 Fax: 240.485.2700 Email: jelili.ojodu@aphl.org www.50yearssavingbabies.org

Public health laboratories perform 97% of the newborn screening in the United States. 2013 marks 50 years of saving and improving the lives of more than 12,000 babies per year. Join us in raising awareness among the public.

Asuragen Booth#: 320

Phone: 512.681.5200 Email: clinicallabsupport@asuragen.com www.asuragen.com

Asuragen Clinical Laboratory offers a suite of Fragile X testing methodologies including Xpansion Interpreter®, a breakthrough molecular diagnostic test that utilizes

novel PCR technologies to detect stabilizing AGG sequences within the FMR1 gene in order to refine the risk of expansion in future generations.

Athena Diagnostics, Inc. Booth#: 420 Phone: 800.394.4493

Email: info@athenadiagnostics.com www.athenadiagnostics.com Athena Diagnostics assists health care professionals

Artienta Diagnostics assists health care professionals with the genetic diagnosis of neurological, renal and endocrine diseases. Our comprehensive test menu includes more than 450 assays for diseases such as Alzheimer's disease, muscular dystrophy, monogenic diabetes and polycystic kidney disease to name a few. Visit AthenaDiagnostics.com for a complete test listing.

Baby's First Test Booth#: 520

Phone: 202.966.5557 Fax: 202.955.8553 Email: info@babysfirsttest.org www.BabysFirstTest.org

Baby's First Test increases awareness and understanding of newborn screening for expectant and new parents, health professionals, industry representatives, and the public. The Newborn Screening Clearinghouse, the nation's educational newborn screening resource center, is housed on BabysFirstTest.org.

Basser Research Center for BRCA1/2 Booth#: 526

Phone: 215.662.2748 Email: basserinfo@uphs.upenn.edu www.penncancer.org/basser/ Description not available at time of print; please visit the booth for more information.

Baylor College of Medicine, Medical Genetics Laboratories Booth#: 303

Phone: 713.798.6555; 800.411.4363 Fax: 713.798.2787 Email: genetictest@bcm.edu

www.bcmgeneticlabs.org / www.bcm.edu Baylor College of Medicine's, Medical Genetics Laboratories offer a broad range of diagnostic genetics tests including DNA diagnostics, sequencing, cytogenetics, FISH diagnostics, cancer cytogenetics, chromosomal microarray analysis, whole exome sequencing, biochemical genetics, and Mitochondrial DNA analysis. Additionally we have a full range of testing for Autism Spectrum Disorders.

BIOBASE Booth#: 203

Phone: 800.305.0670 Email: info@biobase-international.com www.biobase-international.com

BIOBASE is a leading provider of manually-curated databases for molecular diagnostics. The HGMDR and Genome TraxT offers well-structured data, assembled by qualified experts, organized in an easily searchable manner that enables researchers to make clinical interpretations of data arising from NGS efforts.

Boulder Abortion Clinic, P.C. Booth#: 306

Phone: 303.447.1361 / 800.535.1287 Email: bachern@msn.com www.drhern.com

Our purpose is to provide the safest possible abortion care and termination of pregnancies for fetal anomolies or medical indications. We provide this care in a confidential, comfortable, humane, and dignified outpatient setting.

Bright Pink Booth#: 205

Phone: 312.787.4412 Email: BrightPink@BeBrightPink.org www.BrightPink.org

Bright Pink is the only national non-profit organization focusing on the prevention and early detection of breast and ovarian cancer in young women while providing support for high-risk individuals.

California Cryobank* Booth#: 610

Phone: 866.927.9622 Fax: 866.625.7336 Email: askccb@cryobank.com www.cryobank.com

California Cryobank (CCB) has helped create more families than any other sperm bank in the world. Stringent quality controls, unmatched customer service, and a uniquely diverse catalog of over 450 highly-screened donors have earned CCB the confidence of physicians and their patients worldwide.

California Department of Public Health Booth#: 324

Phone: 510.412.1463 Fax: 510.412.1551 Email: Sara.Goldman@cdph.ca.gov www.cdph.ca.gov/programs/DSP/Pages/ GeneticCounselorWebpage.aspx

The Genetic Disease Screening Program (GDSP) of the California Department of Public Health runs the largest newborn and prenatal screening program in the world and sets the standard in delivering high-quality, cost-effective genetic services to all Californians. The GDSP licenses any person practicing as a Genetic Counselor in California.

Casey Molecular Diagnostics Lab Booth#: 322

Phone: 503.494.5838 Email: chiangj@ohsu.edu www.ohsucasey.com/diagnozstics

The Casey Eye Institute Molecular Diagnostics Laboratory is a CLIA certified laboratory providing comprehensive molecular testing for genetic diseases involving the eye. Our mission as a laboratory is to identify the causative genetic mutation(s) for every person in a timely and cost-effective manner.

Cedar River Clinics* Booth#: 623

Phone: 800.572.4223 Fax: 425.255.0262 Email: monaw@cedarriverclinics.org www.cedarriverclinics.org

Compassionate abortion care, to 26 weeks elective, with personal sedation plans. Our Fetal Indication Services include a dedicated clinical care advocate and private waiting rooms. We can assist clients with lodging, transportation and funding resources.

Center for Fetal Diagnosis & Treatment at CHOP Booth#: 321

Phone: 800.IN.UTERO (468.8376) Fax: 215.590.2447 Email: fetalsurgery@email.chop.edu www.fetalsurgery@chop.edu

For pregnancies complicated by birth defects, the Center is one of the most experienced programs in the world providing the complete spectrum of care - expert prenatal diagnosis, fetal therapy including fetal repair of spina bifida, delivery and postnatal treatment.

City of Hope – Clinical Molecular Diagnostic Laboratory Booth#: 417

Phone: 888.826.4362 Fax: 626.301.8142 Email: cmdl@coh.org www.cmdl.cityofhope.org

The City of Hope Molecular Diagnostic Laboratory (CMDL) specializes in clinical genetic testing services for cancer predisposition, coagulopathies, connective tissue disorders, muscular dystrophies, neuropsychiatric disorders and pharmacogenetics.

Combimatrix Diagnostics Booth#: 206

Phone: 949.753.0624 Fax: 949.753.1504 Email: info@cmdiagnostics.com www.combimatrix.com

The Perfect Balance of High-Tech and High-Touch. CombiMatrix provides valuable molecular diagnostic solutions and comprehensive clinical support to promote the highest quality of care – specializing in prenatal, miscarriage analysis and pediatric healthcare.

Connective Tissue Gene Tests Booth#: 317

Phone: 484.244.2900 Fax: 484.244.2904 Email: leena.ala-kokko@ctgt.net www.ctgt.net

CTGT is committed to providing the broadest range of molecular diagnostics for inherited connective tissue disorders – over 240 tests and growing rapidly. CTGT has high test sensitivity, fast service, expert advice and superior customer service.

Cord Blood Registry

Booth#: 316

Phone: 800.588.0258 Email: providers@cordblood.com www.cordblood.com

Cord Blood Registry is the largest, most experienced newborn stem cell bank in the world. CBR has banked stem cells for more than 400,000 children, and has released more cord blood for treatment than any other family bank.

Counsyl Booth#: 212

Phone: 415.680.8376 Email: rachel@counsyl.com www.counsyl.com

Counsyl's goal is to make the human genome practically useful for life-altering decisions. We started down this path by making prepregnancy genetic testing affordable for anyone planning to have a child.

Courtagen Life Sciences, Inc. Booth#: 625

Phone: 877.935.7608 Fax: 617.892.7192 Email: genomics@courtagen.com www.courtagen.com

Courtagen Life Sciences, Inc. is a CLIA certified and CAP accredited laboratory providing genetic testing services for neurological and metabolic disorders. Courtagen delivers comprehensive sequence analysis enabling clinicians to make better decisions regarding better patient care.

Denver Genetic Laboratories Booth#: 522

Phone: 303.724.3801 Fax: 303.724.3802 Email: Peter.Arnold@ucdenver.edu www.denvergenetics.org

Denver Genetic Laboratories includes the UCD DNA Diagnostic Laboratory (Dr. Elaine Spector) and the UCD Biochemical Genetics Laboratory (Dr. Stephen Goodman). We offer reliable research-backed clinical Molecular DNA and Biochemical testing.

Edimer Pharmaceuticals Booth#: 122

Phone: 617.758.4300 Fax: 866.334.4240 Email: tessa@edimerpharma.com www.edimerpharma.com / XLHEDnetwork.com Edimer Pharmaceuticals is a biopharmaceutical company developing EDI200 for the treatment of X-linked Hypohidrotic Ectodermal Dysplasia (XLHED). A global Phase II clinical study of EDI200 in newborn boys affected by XLHED is now enrolling.

Elsevier Booth 607

www.elsevierhealth.com

Description not available at time of print; please visit the booth for more information.

Emory Genetics Laboratory Booth#: 503

Phone: 404.778.8499 Fax: 404.778.8559 Email: kellianne.martin@emory.edu www.geneticslab.emory.edu

Emory Genetics Laboratory (EGL) is a worldwide leader in rare disease clinical genetic testing. EGL's biochemical, cytogenetic, and molecular laboratories perform integrated and comprehensive testing including whole exome sequencing, prenatal microarrays and metabolic disorder testing.

Fetal Repair of Myelomeninocele at Vanderbilt Booth#: 614

Phone: 877.875.3737 Fax: 615.322.0370 Email: mary.dabrowiak@vanderbilt.edu www.childrenshospital.vanderbilt.org/fetalcenter

Vanderbilt University Medical Center is the only centrally located facility in the U.S. currently offering prenatal treatment for myelomeningocele. We are unique in our focus on the care of both mom and unborn baby.

FORCE: Facing Our Risk of Cancer Empowered Booth#: 512

Phone: 866.288.RISK (7475) Fax: 954.827.2200 Email: info@facingourrisk.org www.facingourrisk.org

FORCE is a national nonprofit dedicated to fighting hereditary breast and ovarian cancer. With 50 outreach groups throughout the United States, FORCE programs include education, support, advocacy and research specific to BRCA mutations and hereditary cancers.

Fulgent Therapeutics, LLC. *Booth#: 616*

Phone: 626.350.0537 Fax: 626.454.1667 Email: joeroach@fulgent-therpaeutics.com http://fulgent-therapeutics.com/

Fulgent is dedicated to providing superior, comprehensive molecular testing for healthcare providers and pharmaceutical clients. We offer many disease-focused panels using next generation technologies for common or rare genetic disorders.

Geisinger Health System Booth#: 207

Phone: 570.214.9275 / 800.845.7112 Email: jheid1@geisinger.edu www.geisinger.org

Geisinger serves 3 million people in Northeastern and Central Pennsylvania and has been nationally recognized for research, innovation and quality care. The Geisinger Genomic Medicine Institute conducts innovative research in genetics, genomics and family history.

GeneDx Booth#: 311

Phone: 301.519.2100 www.genedx.com

GeneDx tests for more than 350 rare Mendelian disorders using DNA sequencing and deletion/ duplication analysis of the associated gene(s), and offers oligonucelotide microarray-based testing and next-generation sequencing based panels for cardiac, mitochondrial and neurodevelopmental disorders.

Genesis Genetics Institute

Booth#: 516 Phone: 313.259.5507 Email: Dorothy@rbdcreative.com

www.genesisgenetics.org

Genesis Genetics Institute is the pioneer of preimplantaion testing of embryos for inherited genetic abnormailities. Founded by world renowned scientist Dr. Mark Hughes MD, PhD, one of the original scientists working on the National Institute of Health's largely responsible for discovering pre-implantation genetic diagnosis (PGD) as a clinical practice and performed the first successful cases in the world.

Genetics Center*

Booth#: 113 Phone: 714.288.3500 / 888.4.GENETIC Fax: 714.288.3510

Email: contact@geneticscenter.com www.geneticscenter.com

Genetics Center, for 27 years, provides comprehensive clinical genetics services, with counseling, in-house cytogenetic and molecular genetic laboratory testing, including next generation sequencing, microarray, FISH, others. We are CAP accredited, CLIA certified, and COG approved.

GenPath Women's Health Booth#: 411

Phone: 800.633.4522

www.genpathdiagnostics.com

GenPath Women's Health, a division of BioReference Laboratories, Inc. and sister division of GeneDx, specializes in diagnostic needs for MFM and ObGyn, including prenatal/maternal risk assessment, carrier testing, prenatal diagnosis, pregnancy thrombophilia and infection diseases.

Genzyme, a Sanofi Company Booth#: 517

Phone: 617.252.7500 Fax: 617.252.7600 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#: 221

Phone: 617-714-0800 Fax: 617-714-0801 Email: solutions@gsgenetics.com www.goodstartgenetics.com Good Start Genetics is a leading molecular diagnos

Good Start Genetics is a leading molecular diagnostics company that provides carrier screening for the most prevalent and severe diseases, as outlined by ACMG, ACOG and Jewish advocacy societies. Good Start's next generation sequencing technology tests for 5-10 times more pathogenic mutations to provide higher detection rates and lower residual risks, minimizing the risk of missed carriers.

Exhibitor Index

Illumina, Inc. Booth#: 111

Phone: 858.202.4500 Fax: 858.202.4766 Email: info@illumina.com www.illumina.com

Illumina's technologies are providing the foundation for understanding disease at the molecular level. Our genotyping and sequencing technologies are fueling the emerging field of consumer genomics and are beginning to be applied to create innovations in molecular diagnostics.

Integrated Genetics Booth#: 310

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 in prenatal and postnatal genetic testing. For more information visit: www.integratedgenetics. com.

InVitae Corporation* Booth#: 510

Phone: 800.436.3037 Fax: 415.276.4164 Email: clinical@invitae.com www.invitae.com

InVitae is a CLIA-certified genetic testing laboratory based in San Francisco, California. InVitae offers customizable, clinically-relevant next-generation sequencing panels with a rapid turnaround time, competitive price, an accessible online portal, and reimbursement support.

Kaiser Genetics – Northern California Booth#: 425

Email: Cindy.E.Soliday@kp.org 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. Stop by our booth to learn more about our rewarding positions!

Laboratory for Molecular Medicine, PCPGM Booth#: 515

Phone: 617.768.8500 Fax: 617.768.8513 Email: Imm@partners.org http://pcpgm.partners.org/Imm

The Harvard-affiliated Laboratory for Molecular Medicine is a CLIA-certified molecular diagnostic laboratory within the Partners Healthcare Center for Personalized Genetic Medicine. Our major areas of focus are cardiovascular diseases and syndromes, cancer, and hearing loss.

Mauli Ola Foundation* Booth#: 521 Phone: 949.715.1258

Final: info@mauliola.org

MOF began as a group of surfers who banded together to introduce surfing as a natural saline treatment for cystic fibrosis patients and has now expanded to support childhood cancer and other genetic conditions.

Mayo Medical Laboratories Booth#: 507

Phone: 800.533.1710 Fax: 507.284.4542 Email: mml@mayo.edu www.MayoMedicalLaboratories.com Mayo Medical Laboratories provides cc

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.

Mother to Baby Conducted by the Organization of Teratology Information Specialists Booth#: 323

Phone: 877.311.8972 www.otispregnancy.org

Health care providers and their patients can utilize MotherToBaby, a service of the non-profit Organization of Teratology Information Specialists (OTIS), as a resource for accurate and current information about the possible effects of medications and other environmental exposures used during pregnancy and lactation.

Myriad Genetic Laboratories, Inc. Booth#: 202

Phone: 801.584.3600 Email: cscomments@myriad.com www.myriad.com

Myriad Genetics is a leading molecular diagnostic company dedicated to making a difference in patients' lives through the discovery and commercialization of transformative tests to assess a person's risk of developing disease, guide treatment decisions and assess risk of disease progression and recurrence.

Natera Inc. Booth#: 603

Phone: 650.249.9090 Fax: 650.362.9574 Email: info@natera.com www.panoramatest.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 Society of Genetic Counselors (NSGC) Booth#: 112

Phone: 312.321.6834 Fax: 312.673.6972 Email: nsgc@nsgc.org www.nsgc.org

The National Society of Genetic Counselors advances the roles of genetic counselors in healthcare by fostering education, research, and public policy to ensure the availability of quality genetic services. Visit the booth for membership services information, view products and more.

National Society of Genetic Counselors Cancer SIG Booth#: 110

Phone: 312.321.6834 Email: nsgc@nsgc.org

www.nsgc.org/CancerSIG/tabid/248/Default.aspx Members of the NSGC Cancer SIG will be available during breaks to answer your questions about SIG projects and how you can get involved. Please stop by to view and receive samples of materials that have been developed by the SIG recently.

NextGxDx Booth#: 216

Phone: 615.236.4569 Email: dkauke@nextgxdx.com www.nextgxdx.com

NextGxDx streamlines genetic test ordering by providing an online marketplace to search, compare and order genetic tests. GCs can research tests, compare CLIA laboratories using metrics such as TAT and price, and order electronically through the HIPAAcompliant platform.

PerkinElmer Labs Booth#: 115

Phone: 888.NTD.LABS (683.5227); 877.Sig.Chip (744.2447) Email: ntdlabs@perkinelmer.com, info@signaturegenomics.com www.ntdlabs.com, www.signaturegenomics.com

PerkinElmer Labs, along with our NIPT partner Verinata Health, offer a variety of prenatal and pediatric/adult screening and diagnostic testing options to suit every patient case. We provide one source to support your genetic testing needs.

Personalis, Inc.*

Booth#: 124 Phone: 855.GENOME.4 Fax: 650.752.1301 Email: info@personalis.com www.personalis.com

Personalis is a genomics services company providing the most accurate and comprehensive end-toend pipeline for whole human genome and exome sequencing and analysis. We provide sample-toresults solutions for both RUO and CLIA projects.

Pfizer

Booth#: 213

Phone: 212.733.2323 www.pfizer.com

At Pfizer, we apply science and our global resources to improve health and well-being at every stage of life. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time.

Prevention Genetics, LLC Booth#: 215

Phone: 715.387.0484

Email: s.samuels@preventiongenetics.com www.preventiongenetics.com.

PreventionGenetics provides Clinical DNA testing and DNA Banking services. We offer Clinical DNA sequencing tests for more than 600 genes. Our team provides fast turnaround times, outstanding personalized service and the most reasonable prices in the industry.

Progeny Software, LLC Booth#: 602

Phone: 800.776.4369 Fax: 888.584.1210 Email: info@progenygenetics.com www.progenygenetics.com

Collect patient family history online or in clinic via web or tablet. Create customized questionnaire's including annual follow-ups. Manage and analyze clinical data and pedigrees. Integrate with EMR. Come see the new Progeny Version 9!

Quest Diagnositcs

Booth#: 403 Phone: 866.MY.QUEST

www.questdiagnostics.com/Genetics

Quest Diagnostics, the world's leading provider of diagnostic testing, information and services, offers a comprehensive test menu including Genetics, Women's Health, Oncology, Toxicology, Immunology, and Endocrinology. We empower health and diagnostic insights.

Recombine Booth#: 524

Phone: 855.OUR.GENES Email: info@recombine.com www.recombine.com

Recombine is a clinical genetic testing company. We provide a complete and integrated service covering everything from sample collection to genetic counseling. We simplify the genetic testing process so you can focus on caring for your patients.

Reproductive Genetics Institute Booth#: 424

Phone: 773 472 4900 Fax: 773.871.5221 Email: info@reproductivegenetics.com www.reproductivegenetics.com

Reproductive Genetics Institute (RGI) is a worldrenowned provider of Preimplantation Genetic Diagnosis and prenatal testing. With experience spanning three decades, RGI is a leader in PGD technology and offers testing for nearly any single gene disorder, as well as for chromosome rearrangements and aneuploidy by PCR, FISH, and 24-chromosome aCGH.

Reprogenetics Booth#: 214

Phone: 973.436.5003 Fax: 973.710.4238 Email: jfischer@reprogenetics.com www.reprogenetics.com

Reprogenetics is a full-service preimplantation genetic diagnosis (PGD) laboratory offering NGS, 24 chromosome aCGH for aneuploidy, translocations and inversions, PGD for single gene disorders and HLA matching, aCGH for POC testing, and FISH on sperm.

Seattle Children's Hospital **Department of Laboratories*** Booth#: 606

Phone: 206.987.3727 Fax: 206.987.3840 Email: barry.weisband@seattlechildrens.org www.seattlechildrens.org/geneticslab/

Are send-out tests busting your laboratory budget? Is test utilization management just a fantasy? Seattle Children's Genetics Laboratories and PLUGS will reduce your send-out expenses and make UM a reality in your lab-today!

Sequenom Laboratories (formerly Sequenom Center for Molecular Medicine) Booth#: 302

Phone: 877.821.7266

Sequenom Laboratories, a wholly-owned subsidiary of Sequenom, Inc., is a CAP-accredited and CLIAcertified molecular diagnostics laboratory dedicated to improving patient outcomes by offering revolutionary laboratory-developed tests for a variety of prenatal and eye conditions. Sequenom pioneered NIPT with the launch of the MaterniT21 PLUS test. Sequenom quality of science allows you to deliver results. Confidently.

Sharsheret Booth#: 613

Phone: 866.474.2774 Email: jthompson@sharsheret.org www.sharsheret.org

Sharsheret is a national not-for-profit organization supporting young women and their families, of all Jewish backgrounds, facing breast cancer. Our mission is to offer a community of support to women diagnosed with breast cancer or at increased genetic risk, by fostering culturally-relevant individualized connections with networks of peers, health professionals and related resources.

Sinai Surgical Center* Booth#: 416

Phone: 310.247.0553 www.ProChoiceMedical.com

Accredited surgical center specializing in 2nd and 3rd trimester abortions for fetal indications. Rob MacLennan CRNA (anesthetist) and Josepha Seletz MD (OB/GYN) have worked together for 13 years and in partnership for past 3 years.

Southwestern Women's Options Booth#: 612

Phone: 505 242 7512 Email: 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. Louis Fetal Care Institute Booth#: 423 Phone: 314.268.4037

Email: fetalcare@ssmhc.com www.stlouisfetalcare.com

The St. Louis Fetal Care Institute offers state-of-the-art diagnostic methods and treatment options, including open and minimally invasive fetal surgery, for families whose unborn babies are facing medical challenges.

The Greenwood Genetic Center Booth#: 223

Phone: 800.473.9411 Email: kking@ggc.org 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.

The Heart Institute Diagnostic Laboratory Booth#: 514

Phone: 513.803.1751 Email: heartdx@cchmc.org www.cinncinnatichildrens.org/heartdx The Heart Institute Diagnostic Lab at Cincinnati

Children's Hospital Medical Center specializes in sequencing of genes associated with cardiovascular disease and molecular analysis of viruses known to cause myocarditis

The Marfan Foundation* Booth#: 427

Phone: 516.883.8712 Fax: 516.883.8040 www.marfan.org

We pursue the most innovative research and make sure that it recieves proper funding. We inform the public and educate the patient community to increase early diagnosis and ensure life-saving treatment. We provide relentless support to families, caregivers, and healthcare providers.

The University of Chicago Genetic Services Booth#: 511

Phone: 773.834.0555 Email: ucgslabs@genetics.uchicago.edu www.dnatesting.uchicago.edu

Our laboratory is committed to delivering high quality genetic diagnostics services, in particular for neurodevelopmental disorders and rare diseases. Our services include genetic testing for brain malformations, microcephaly, epileptic encephalopathy and Cornelia de Lange syndrome.

Transgenomic Labs Booth#: 513

Phone: 877.274.9432 Fax: 855.263.8668 Email: clientservices@transgenomic.com www.labs.transgenomic.com

Transgenomic offers genetic testing for mitochondrial disorders, epilepsy and seizure-related disorders, autism spectrum and developmental delay disorders, chromosomal abnormalities and inherited diseases. Our comprehensive test menu is designed to meet the needs of Child Neurologists.

UAB Medical Genomics Laboratory Booth#: 429

Phone: 205.934.5562 Fax: 205,996,2929 Email: medgenomics@uabmc.edu www.genetics.uab.edu/medgenomics

The UAB Medical Genomics Laboratory (MGL) is a CAP-certified, non-profit clinical laboratory, offering comprehensive testing for both common and rare genetic disorders, while specializing in the neurofibromatoses: NF1, Legius syndrome, NF2, segmental NF, and schwannomatosis.

UCLA Clinical Genomics Center Booth#: 210

Phone: 310.775.5884 Fax: 310.267.2685 Email: scwebb@mednet.ucla.edu www.pathology.ucla.edu/genomics

The UCLA Clinical Genomics Center offers testing for hereditary disorders and cancer diagnosis/ management, and genetic counseling. Our own CLIA-certified CAP-accredited labs provide exome sequencing with expert interpretation by our Genomic Data Board, custom Sanger sequencing, chromosomal microarray and more.

University of Washington Reference Lab Services Booth#: 604

Phone: 206.465.6717 Email: kdestro@u.washington.edu http://depts.washington.edu/labweb

University of Washington Genetics laboratory offers next-generation sequencing panels, including BROCA Cancer Risk Panel, ColoSeq™ - Lynch and Polyposis Panel, and UW-OncoPlex™ tumor panel.

Verinata Health, an Illumina Company Booth#: 102

Phone: 650.503.5200 / 855.266.6563 Fax: 650.503.5201 Email: info@verinata.com www.verinata.com

Verinata Health, an Illumina company, offers the verifi® test, a non-invasive prenatal test that analyzes cell-free DNA in maternal blood to detect the most common fetal chromosome abnormalities. The verifi® test is available through licensed healthcare providers.

Victor Center for the Prevention of **Jewish Genetic Diseases** Booth#: 314

Phone: 877.401.1093 Fax: 215.456.2356 Email: info@victorcenters.org www.victorcenters.org

We work with healthcare professionals, clergy and the community to create awareness and organize screenings and genetic counseling for the 19 preventable genetic diseases for which 1 in 4 Ashkenazi Jews is a carrier.



Panorama™ The most accurate, comprehensive non-invasive prenatal test (NIPT)

DOWNLOAD PROF. NICOLAIDES' ARTICLE: HTTP://TINYURL.COM/ nateradata THE ONLY NIPT THAT CAN IDENTIFY TRIPLOIDY

Using a simple blood draw from the mother, Panorama

uses a proprietary algorithm to determine the fetal genotype.

 Provides >99% accuracy for T21, T18, and T13; even with fetal fractions as low as 4%



- Reports fetal fraction percent for all cases
- Evaluates and reports risk of Monosomy X
- Provides personalized risk score for every patient
- Available at 9 weeks of gestation and later
- Provides high positive predictive value (PPV) to help you support your patient with the reassurance she needs
- NOW identifies triploidy



Please contact us for more information

1-855-866-NIPT (6478) email: support@natera.com **www.panoramatest.com**



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NSGC 33rd Annual Education Conference SEPTEMBER 17-20, 2014 Ernest N. Morial Convention Center • New Orleans, Louisiana