

# 2015 Annual Clinical Genetics Meeting

## Course Information

Date of Release: June 1, 2015

Expiration Date: May 31, 2017

Estimate Time of Completion: Maximum of 57 hours

ACMG Short Course Cancer Genetics: Translation of New Concepts to Clinical Care 4.5

ACMG Short Course Clinical Exome Sequencing 4.5

Special Satellite Meeting View 'Undiagnosed' and Discuss the Utah Population Database - A Community Conversation 2

Trainee Session Things We Don't Always Teach in Genetics Residency: A Toolkit for Trainees and Mentors 1.5

3 Concurrent Sessions (What's New in TSC and NF1?) (Cardinal Signs of Selected Syndromes) (Genotype-Phenotype Correlations) 6

3 Concurrent Sessions (Genomics for the Healthy) (Syndrome Specific Specialty Clinics and Networks) (Biology & Classification of Early Life Epilepsies) 4.5

Presidential Plenary: Genetics and Genomics, Looking to the Future 1.5

3 concurrent Oral Abstracts/Platforms (Cancer/Genetic Counseling/Education Platform Presentations) (Clinical Genetics) (Molecular Genetics / Exome) 6

March of Dimes Symposium Interdisciplinary Approach to Disorders of Sex Development: From Genes to Quality of Life 2.5

The Next Generation of Genomic Testing: Billing and Reimbursement in the Genomic Era and Prenatal Diagnostics 1.5

Highlights Plenary Session 1

3 Concurrent Sessions (Molecular Diagnostics of Cancer) (Mendelian Forms of Common Diseases) (Reproductive Genetics) (Biochemical Genetics/Legal Ethical/Public Health/Perinatal) 6

3 concurrent Oral Abstracts/Platforms (Molecular Genetics / Exome / Cytogenetics / Therapeutics Platform Presentations) (Clinical Genetics) 6

3 Concurrent Sessions (Molecular and Clinical Spectrum of Inborn Errors) (Genetics of Sudden Cardiac Death) (Addressing the Missing Diagnostic Yield) 6

ACMG/SIMD Joint Plenary (Part 1) Could It Be Metabolic? Practical Approaches to Common Presentations 1.5

ACMG/SIMD Joint Plenary (Part 2) Diagnosis of Metabolic Disease in the 21st Century 2

## Purpose

The 2015 Annual Clinical Genetics Meeting will present both research and clinical topics that promote the science and the practice of clinical genetics and genomics. Sessions will focus on the latest discoveries of the etiology and the pathogenesis of genetic disorders, the latest developments in genetic testing and screening, the laboratory's role in the diagnosis of genetic disorders, the treatment of genetic disorders in children and adults, the delivery of genetic services and more.

## Audience

- Medical and clinical geneticists; genetic counselors; pediatric, obstetric, and maternal-fetal specialists; and all medical practitioners who are providing comprehensive diagnostic, management, and counseling services for patients with, or at risk for, genetically influenced health problems
- Laboratory directors and technicians who conduct genetic testing
- Researchers involved in the discovery of genetic disorders and treatments
- Any healthcare and public health professionals who have an interest in medical and clinical genetics and genomics

## Learning Objectives

After attending the 2015 ACMG Annual Meeting, participants should be able to:

1. Describe the latest advanced in the field of Cancer Genomics and distinguish advantages and disadvantages between various methodologies for optimal patient care
2. Generalize updated information on technologies and topics in reproductive genetics
3. Describe rare known genetic conditions diagnosed on prenatal ultrasound as well to assist in the differential diagnoses of unknown cases

4. Recognize the limitations and applications of prenatal exome sequencing
5. Provide appropriate pre-and post-test counseling
6. Explain how advanced paternal age affects fertility and reproductive outcomes
7. Recognize cardinal clinical signs and symptoms of specific rare syndromic conditions
8. Identify the appropriate molecular diagnostic testing strategies
9. Review the application and significance of variants found on microarray results
10. List four causes for missing diagnostic yield in clinical whole exome sequencing tests
11. Identify genes associated with early life epilepsies, their phenotypes, diagnostic approaches and the impact of genetic etiology on treatment
12. Describe the clinical manifestations of inherited cardiomyopathies and arrhythmias, and available genetic testing, screening, prevention and treatment options
13. Discuss the complex nature and need for multidisciplinary care in disorders of sexual development
14. Describe four key components of successful career development
15. Explain the impact of reimbursement policies on patient care, from the perspective of clinical geneticists and how ACMG is involved in working at the national and local levels to support laboratories and clinicians in reimbursement efforts
16. Illustrate the relationship between professionals and support groups as partners in clinical care and research

## **Plenary and Concurrent Sessions**

These sessions have been developed based on proposals from members and nonmembers of ACMG and the Program Committee. The sessions highlight a wide range of topics of interest to genetics practitioners, researchers, laboratory directors and technicians, and counselors. If submitted, abstracts from speakers are available in their online session description. Abstracts can also be accessed from the Search function at [www.acmgmeeting.net](http://www.acmgmeeting.net).

## **Platform Presentations**

ACMG's Program Committee has assembled abstract-driven platform talks totaling 48 presentations. Each presenting author will give a 10-minute talk followed by 5 minutes of discussion.

## **Accreditation**

The American College of Medical Genetics and Genomics is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## **Credit Designation 2015 ACMG Annual Clinical Genetics Meeting**

The American College of Medical Genetics and Genomics designates this enduring activity for a maximum of 48 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## **Credit Designation ACMG Short Course – Cancer Genetics: Translation of New Concepts to Clinical Care**

The American College of Medical Genetics and Genomics designates this enduring activity for a maximum of 4.5 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## **Credit Designation ACMG Short Course – Clinical Exome Sequencing**

The American College of Medical Genetics and Genomics designates this enduring activity for a maximum of 4.5 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### **Continuing Education Credits (CEUs) – Laboratory Directors and Laboratory Personnel**

ACMG is approved as a provider of continuing education programs in the clinical laboratory sciences by the American Society for Clinical Laboratory Science (ASCLS) Professional Acknowledgment for Continuing Education (P.A.C.E.®) Program. ACMG designates the 2015 Annual Clinical Genetics Meeting for a maximum 48 contact hours and the ACMG Short Courses for a maximum of 4.5 contact hours of continuing education each.

*ACMG is approved by the Florida Board of Clinical Laboratory Personnel as CE Provider #50-11878.*

*ACMG is approved by the California Department of Health Services through the ASCLS P.A.C.E.® Program as CE Provider # 0001.*

**The National Society of Genetic Counselors (NSGC) has authorized the American College of Medical Genetics to offer up to 5.70 CEUs or 57.00 contact hours (Category 1) for the 2015 ACMG Annual Clinical Genetics Meeting Recordings.** The American Board of Genetic Counseling (ABGC) will accept CEUs earned at this program for the purposes of certification and recertification. (Certificates will be issued quarterly by NSGC)

### **Disclosure Statement**

In accordance with the Accreditation Council for Continuing Medical Education (ACCME) and the policy of the American College of Medical Genetics and Genomics (ACMG), speakers and moderators presenting in sessions that offer CME and CEU credit must disclose, prior to the start of their presentations, the existence of any financial interest and/or other relationship(s) they might have with the manufacturer(s) or provider(s) of any commercial product(s) or service(s), including diagnostic laboratories to be discussed during their presentation. These disclosures are included in the Disclosure section of this program guide.

Speakers with disclosures are required to provide a slide that states any relevant financial relationships (or lack thereof), and to state these to the audience at the start of their presentation. All disclosures have been peer reviewed by the CME Subcommittee.

Members of the Program Committee, Education Committee, CME Subcommittee, and ACMG staff have also completed the disclosure process. If these

members of the planning group have disclosed the existence of any financial interest and/or other relationship(s) they might have with the manufacturer(s) or provider(s) of any commercial product(s) or service(s), including diagnostic laboratories, they are listed in the Disclosure section of this program guide. Members who are not listed in the Disclosure section have nothing to disclose.

### **Diagnostic and Testing Labs and Commercial Interest**

ACMG CME activities adhere to the Accreditation Council for Continuing Medical Education (ACCME) Standards for Commercial Support. The ACCME has defined under its conflict of interest definition the types of industry interests that must be excluded from CME content delivery. This largely applies to manufacturers of pharmaceuticals and devices. Diagnostic laboratories, whether not-for-profit or for-profit, that are not owned by device manufacturers are exempted from this CME requirement. However, they are still expected to be fair and balanced in their presentations

### **HIPAA Compliance by Speakers and Presenters**

The ACMG supports medical information privacy. While the ACMG is not a “covered entity” under HIPAA 1996 and therefore is not required to meet these standards, ACMG wishes to take reasonable steps to ensure that the presentation of individually identifiable health information at ACMG-sponsored events has been properly authorized. All presenters have completed a form indicating whether they intend to present any form of individually identifiable healthcare information. If so, they were asked either to attest that a HIPAA-compliant consent form is on file at their institution, or to send ACMG a copy of the ACMG HIPAA compliance form. This information is on record at the ACMG Administrative Office and will be made available upon request.

### **Disclaimer**

ACMG educational programs are designed primarily as an educational tool for health care providers who wish to increase their understanding of the application of genomic technologies to patient care. The ACMG does not endorse, or recommend the use of this educational program to make patient diagnoses, particular by individuals not trained in medical genetics. Adherence to the information provided in these programs does not necessarily ensure a successful diagnostic outcome. The program should not be considered inclusive of all proper procedures and tests or exclusive of other

procedures and tests that are reasonably directed at obtaining the same results. In determining the propriety of any specific procedure or test, a healthcare provider should apply his or her own professional judgment to the specific clinical circumstances presented by the individual patient or specimen. ACMG educational programs are designed primarily as an educational tool for health care providers who wish to increase their understanding of the application of genomic technologies to patient care. The ACMG does not endorse, or recommend the use of this educational program to make patient diagnoses, particularly by individuals not trained in medical genetics. Adherence to the information provided in these programs does not necessarily ensure a successful diagnostic outcome. The program should not be considered inclusive of all proper procedures and tests or exclusive of other procedures and tests that are reasonably directed at obtaining the same results. In determining the propriety of any specific procedure or test, a healthcare provider should apply his or her own professional judgment to the specific clinical circumstances presented by the individual patient or specimen.

### **Content Validation**

ACMG follows the ACCME policy on Content Validation for CME activities, which requires: *Content Validation and Fair Balance*

1. ACMG follows the ACCME policy on Content Validation for CME activities, which requires:
  - a) All recommendations involving clinical medicine must be based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients.
  - b) All scientific research referred to, reported or used in CME in support or justification of patient care recommendations must conform to the generally accepted standards of experimental design, data collection and analysis.
2. Activities that fall outside the definition of CME/CE; “Educational activities that serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession” (source: ACCME and AMA) will not be certified for credit. CME activities that

promote recommendations, treatment, or manners of practicing medicine or pharmacy that are not within the definition of CME/CE or, are known to have risks or dangers that outweigh the benefits or, are known to be ineffective in the treatment of patients.

3. Presentations and CME/CE activity materials must give a balanced view of therapeutic options; use of generic names will contribute to this impartiality. If the CME/CE educational materials or content includes trade names, where available, trade names from several companies must be used.

### **System Requirements**

This website utilizes some of the latest advancements in web technologies. It is recommended that end users' devices satisfy the following requirements to take advantage of everything this website has to offer.

- OS: Windows, Mac
- Browser: Internet Explorer 7 or higher, Firefox, Chrome, Safari
- Javascript & Cookies enabled
- Adobe Flash Player 9.124.0 or higher
- Recommended RAM: 512MB+

### **Mobile support**

- Apple iPad/iPhone running HTML5
- Android Device running Flash

### **Requesting Credit for the Activity**

There is a fee for a credit certificate.

To obtain credit, you must:

- a) Read all text and view all slide and video presentations for which you wish to receive credit
- b) Answer the post-test questions. After you have answered all the questions and passed a claim credit button will appear on this page if you have achieved a passing score. If you did not achieve a passing score, please review the session and retake the test.