COURSE DESCRIPTION

This 1½ day CME course is to have experts in the field of cardiovascular genetics detail the important role of genetics in the diagnosis, risk stratification, and treatment of diseases affecting the heart and the blood vessels.

Topics covered will include, Genomics 101, Genetic Purgatory, Sudden Death Predisposing Channelopathies: Diagnostic, Prognostic, & Therapeutic Implications of Genetic Testing, Pharmacogenetics of Coronary Artery Disease, and Genetics of Lipidemias and the Aortopathies.

Unique Features: Audience response system to enhance immediate feedback. Easy access to faculty members. One-on-one interaction. Efforts will be made to introduce the clinical applications using new technology, however, there is no hands-on experience provided. Self-assessment questions to gauge outcome.

TEACHING MATERIALS/SYLLABUS

Attendees will be provided a link to obtain course materials on the internet and are welcome to bring a laptop or iPad during the learning sessions. Syllabus will be uploaded the day of the presentation.

COURSE LEARNING OBJECTIVES

Upon conclusion of this program, participants should be able to:

• Summarize the probabilistic nature of genetic testing and develop a strategy to manage the variant of uncertain significance (VUS) test result
• Identify the role of genetic testing in the diagnosis and pathophysiology of the heritable cardiomyopathies, channelopathies, and aortopathies
• Define genetic markers of atherosclerosis and their role in risk stratification of coronary artery disease
• Identify the genetic basis of heritable causes of the hyperlipidemias and implications for prevention and familial screening
• Define the role of inheritance in cardiovascular drug response and to utilize genetics to minimize adverse events and maximize drug efficacy

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

INTENDED AUDIENCE

This course is intended for pediatric and adult cardiologists, internists, primary care providers, and nurse practitioners with special interest in the management of patients with CVD, pediatric and adult cardiology trainees, and genetic counselors with an interest in cardiology.

CREDIT

Mayo Clinic College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Mayo Clinic College of Medicine designates this live activity for a maximum of 13.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Health Care Professionals – A certificate of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

Attendees should ensure in advance that their credentialing or licensing organization accepts AMA PRA Category 1 Credits™ from the sponsor of this activity.

EDUCATIONAL GRANTS

At the time of this printing, a complete listing of commercial supporters was not available. Appropriate acknowledgment will be given to all supporters at the time of the meeting.

Exhibits will be available for viewing at scheduled breaks.
DATE AND LOCATION
The Genetics of Heart & Vascular Disease will be held October 28-29, 2016. Course headquarters will be located at the Ritz Carlton, Amelia Island in the Talbot Ballroom on the First Floor. Meeting site telephone: 907-277-1100

TRAVEL
Jacksonville International Airport is the recommended airport for arrival. Taxi or shuttle is the recommended mode of transportation from the airport.

Travel arrangements are the sole responsibility of the individual registrant.

LODGING ACCOMMODATIONS
Explore Amelia Island where it is treasured for its long stretches of quiet beaches, natural beauty, unique history, and charming seaport character. Choose from golf, spa, dining, shopping, and a range of outdoor activities with your spare time. Amelia Island has been recognized by Conde Nast Traveler’s Reader’s Choice Awards as one of the Top 25 Islands in the world!

To secure your room at The Ritz Carlton, please call 888-239-1217 and state that you will be attending the Mayo Clinic Conference. The room rate is $249 (single/double). The room block is scheduled to be held until Thursday, October 6, 2016 but may be sold out before this date. We advise you to register for the program and reserve your lodging as soon as possible.

On-line Booking: https://resweb.passkey.com/go/MayoGeneticCardiology2016

Check-in time is 4:00 p.m.
Check-out time is 11:00 a.m.

Parking at the Hotel: Valet Overnight Parking - $12/day

For further information regarding the area and its attractions, please refer to: http://www.ameliaisland.com/

Mayo Clinic’s Department of Cardiovascular Diseases is not responsible for expenses incurred by an individual who is not confirmed and for whom space is not available at the meeting. Costs incurred by the registrant such as airline or hotel fees or penalties are the responsibility of the registrant.

We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us better serve you.

FACULTY
Course Directors
Michael J. Ackerman, M.D., Ph.D.
Naveen L. Pereira, M.D.
Iftikhar J. Kullo, M.D.

Faculty
Paldeep S. Atwal, M.B., Ch.B.
Linnea M. Baudhuin, Ph.D.
Nicole J. Boczek, Ph.D.
Johan (Martijn) M. Bos, M.D., Ph.D.
David R. Deyle, M.D.
Teresa M. Kruisselbrink, M.S., C.G.C.
Arthur A.M. Wilde, M.D., Ph.D.

FACULTY DISCLOSURE
As a provider accredited by ACCME, Mayo Clinic College of Medicine (Mayo School of Continuous Professional Development) must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course director(s), planning committee, faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty also will disclose any off-label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of this information will be published in course materials so those participants in the activity may formulate their own judgments regarding the presentation.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:45 a.m.</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:15 a.m.</td>
<td>Welcome</td>
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<tr>
<td>7:30 a.m.</td>
<td>Genetics &amp; Genetic Testing 101: How Do You Spell D-N-A?</td>
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<td>8:00 a.m.</td>
<td>Sanger, Next Gen, WES – Does the Technique Matter?</td>
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<td>8:20 a.m.</td>
<td>Polyphen, SIFT, CONDEL, PARALOGUES: This is Greek to Me?</td>
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<td>8:40 a.m.</td>
<td>Genetic Purgatory: Exposing the VUS Issue</td>
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<td>9:10 a.m.</td>
<td>Genetic Counseling and Genetic Counselors: What's This All About Anyway?</td>
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<tr>
<td>9:30 a.m.</td>
<td>Panel Discussion</td>
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<td>10:00 a.m.</td>
<td>Refreshment Break</td>
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<td>10:15 a.m.</td>
<td>Brugada Syndrome</td>
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<td>10:45 a.m.</td>
<td>Long QT Syndrome</td>
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<td>11:15 a.m.</td>
<td>Catecholaminergic Polymorphic Ventricular Tachycardia</td>
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<tr>
<td>11:45 a.m.</td>
<td>Panel Discussion</td>
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<tr>
<td>12:15 p.m.</td>
<td>Lunch</td>
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<td>1:15 p.m.</td>
<td>Hypertrophic Cardiomyopathy</td>
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<td>1:45 p.m.</td>
<td>Arrhythmogenic Cardiomyopathy</td>
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<td>2:15 p.m.</td>
<td>Dilated Cardiomyopathy</td>
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<td>2:45 p.m.</td>
<td>Refreshment Break</td>
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<tr>
<td>3:00 p.m.</td>
<td>Restrictive Cardiomyopathy and Left Ventricular Noncompaction</td>
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Schedule continued on next page.
3:30 p.m. Sudden Death Victims (aka, The Molecular Autopsy)
Michael J. Ackerman, M.D., Ph.D.

4:00 p.m. Panel Discussion
Michael J. Ackerman, M.D., Ph.D., Arthur A.M. Wilde, M.D., Johan (Martijn) M. Bos, M.D., Ph.D., Paldeep S. Atwal, M.B., Ch.B., and Teresa M. Kruisselbrink, M.S., C.G.C.

OPTIONAL – DAY 1 SPECIAL EVENING SESSION – 4:30 p.m. - 6:00 p.m.
Expert Analysis of Channelopathy/Cardiomyopathy Genetic Test Reports from Your Patients
Michael J. Ackerman, M.D., Ph.D., Arthur A.M. Wilde, M.D., Ph.D., Paldeep S. Atwal, M.B., Ch.B., and Teresa M. Kruisselbrink, M.S., C.G.C.

Saturday, October 29, 2016
Day 2 – Session V - Pharmacogenetics of Coronary Artery Disease and Congestive Heart Failure
Iftikhar J. Kullo, M.D., presiding

6:45 a.m. Continental Breakfast
7:00 a.m. Early Bird Special: Pharmacogenetics 101: CYPs, VKORCs, and GATCs
Naveen L. Pereira, M.D.

7:30 a.m. Interpreting Genetic Tests for Cardiovascular Diseases: From Genotyping to Sequencing
Iftikhar J. Kullo, M.D.

8:00 a.m. Genetics, FDA, and Drug Labels: Guidance for the Practitioner
Naveen L. Pereira, M.D.

8:30 a.m. Coronary Heart Disease Events: Will Genetic Testing Improve Prediction?
Iftikhar J. Kullo, M.D.

9:00 a.m. Heart Failure and Beta Blockers: Should I Genotype CYP2D6 and BAR?
Naveen L. Pereira, M.D.

9:30 a.m. Panel Discussion
Naveen L. Pereira, M.D. and Iftikhar J. Kullo, M.D.

10:00 a.m. Refreshment Break

Day 2 – Session VI - Genetics of Hyperlipidemias and the Aortopathies
Naveen L. Pereira, M.D., presiding

10:30 a.m. Familial Hypercholesterolemia and other Heritable Lipid Disorders
Iftikhar J. Kullo, M.D.

11:00 a.m. Amyloidosis: How Can Genetics Help?
Naveen L. Pereira, M.D.

11:15 a.m. Marfan Syndrome and the Other Aortopathies
David R. Deyle, M.D.

11:45 a.m. Panel Discussion
Iftikhar J. Kullo, M.D., Naveen L. Pereira, M.D., and David R. Deyle, M.D.

12:15 p.m. Conclusion
Michael J. Ackerman, M.D., Ph.D.