Cardiovascular Genetics Online

Lecture #	Lecture Title	Lecturer	Behavioral Objectives Participants will:
Lecture 1	Overview of Cardiac Structure, Function, and Screening Tests	Bing Hinton, MD	Review cardiovascular structure and function as well as traditional cardiac screening tests
			Examine how abnormal cardiac development can lead to pediatric heart disease
			Examine how defining the phenotype can impact genetic and developmental research efforts
Lecture 2	Inherited Arrhythmias and Sudden Cardiac Arrest: Genetic Counseling and Testing	Erin Miller, MS	Outline types of inherited arrhythmia and availability of genetic testing.
			Review genetic counseling, genetic testing, and cardiac screening recommendations for inherited arrhythmias.
			Outline approach to genetic evaluation in SCA/SCD.
Lecture 3	Inherited Arrhythmic Disorders	Rick Czosek, MD and Jeff Anderson, MD	Describe the molecular basis of ion-channel mediated tachycardias
			Discuss the symptoms, diagnosis, treatment, and surveillance recommendations for CPVT, Brugada syndrome, Short QT, and Long QT
			Discuss inheritance patterns and screening recommendations for inherited arrhythmias and aortopathies
Lecture 4	Aortopathies: Genetic Counseling and Testing	Amy Shikany, MS	Become familiar with genetic counseling principles for aortopathies
			Review etiologies, inheritance patterns and screening recommendations for aortopathies
			Discuss the genetic testing available for aortopathies
Lecture 5	Genetic Counseling and Testing for Cardiomyopathy	Erin Miller, MS	Outline types of cardiomyopathy and availability of genetic testing
			Review genetic counseling, genetic testing, and cardiac screening recommendations for cardiomyopathy
			Apply knowledge of familial cardiomyopathy through case examples

Lecture 6	A Practical Approach to the Evaluation of Cardiomyopathy: Syndromic, Metabolic, Neuromuscular and Acquired Causes	Stephanie Ware, MD	Recognize the importance of diagnosing the underlying cause of cardiomyopathy in facilitating appropriate treatment, management, and screening for patients and their families
			Discuss the most common syndromic, metabolic, neuromuscular, and acquired causes of cardiomyopathy
			Construct a differential diagnosis for patients with different types of cardiomyopathy
Lecture 7	Genetic Counseling for Congenital Heart Defects	Ashley Parrott, MS	Practice risk assessment for determining the cause of congenital heart defects
			Identify recurrence risk information associated with congenital heart defects
			Review genetic testing available for congenital heart defects
Lecture 8	Syndromic Causes of Congenital Heart Disease	Nicole Weaver, MD	Recognize a cardiovascular genetics approach to differential diagnosis
			Identify syndromes commonly associated with congenital heart disease
Lecture 9	Familial Coronary Heart Disease	Amy Sturm, MS	Review statistics and traditional risk assessment tools for coronary heart disease
			Define characteristics of increased familial risk for coronary heart disease
			Describe the current state of genomic risk assessment for coronary heart disease
Lecture 10	(Genetic) Epidemiology of Cardiovascular Disease	Lisa Martin, PhD	Explain the phenotypic complexity of cardiovascular disease and its impact on genetic studies
			Contrast the gene identification methods of linkage and association studies
			Describe the common disease/common variant hypothesis in relation to cardiovascular disease
Lecture 11	Cardiac Involvement in Neuromuscular Conditions	Elizabeth Ulm, MS	Identify neuromuscular disorders that commonly have cardiac involvement
			Discuss the specific cardiac findings that are associated with specific neuromuscular disorders.