

## Certificate in Clinical Genetics for Health Professionals

### Course Syllabus

#### Description

Since the completion of the Human Genome Project in 2003, knowledge about genes and chromosomes has made tremendous advances into the everyday practice of medicine. The improved understanding of the underlying genetic contributions to disease and how to use genomic information to improve modern health care treatment plans has not always been taught in health care professional training programs.

The certificate program is taught by experts in the field. It is designed as an interactive, online, self-paced program with case-based applications. No prior knowledge of genetics is required and there are no prerequisites to take this course.

#### Purpose

The purpose of this certificate is to provide health care professionals with a broad overview of genetics and to demonstrate how to incorporate genomic medicine to their current practice. This certificate is not intended to create experts in genetics or genetic counseling but rather to enhance genetic knowledge and strengthen the skills of providers to be able to recognize the appropriate indications for referral to a genetics professional.

#### Target Audience

The certificate is intended for health care professionals in clinical practice from all facets of care including providers in the areas of: *Pediatrics, family or internal medicine, obstetrics and gynecology and specialty areas of medicine (oncology, neurology and cardiology)*.

It is intended for health care providers such as *physicians, advanced practice providers, nurses, occupational and physical therapists, speech-language pathologists, audiologists* and many others who are practicing in one of the medical areas listed above.

#### Learning Objectives

After completing the certificate program, the learner will be able to:

1. Describe the important role of genetics knowledge in the current standard of care for various medical problems throughout the spectrum of life.
2. Apply foundational aspects of genetics to case-based scenarios.
3. List and describe the various types of services offered by genetics specialists.

4. Identify “red flags” for a possible genetic etiology based on various patient presentations and make appropriate referrals to a genetics specialist.
5. Distinguish between the different types of genetic testing and, using a case-based approach, create a treatment plan that incorporates referral to a genetic specialist for appropriate clinical signs and symptoms.
6. Compare direct-to-consumer genetic tests to clinical genetic testing in order to help guide patients appropriately.
7. Describe the process for interpreting basic genetic testing results for common inheritable disease states.
8. Identify common heritable diseases and describe the initial work-up for genetic testing/referral for particular patient populations in at least one of the following specialty areas: pediatrics, oncology, cardiology, neurology, preconception and prenatal.

### Format

The certificate comprises approximately of 31.8 hours of content with knowledge checks and supplemental enrichment materials throughout. The first 6 modules consist of approximately 17.6 hours of content and make-up the “core” portion of the certificate. There are 5 specialty modules which can earn the participant up to 14.2 hours of CE. **Participants must select at least 1 specialty module in addition to the core modules to complete the certificate.**

Total credits will be determined by length of the specialty module(s) selected, i.e. each 1-hour module is equal to 1 credit hour.

#### A. Core Modules:

Topic	Hours
Module 1: <i>Why Genetics? New Era of Genomics &amp; Personalized/Precision Medicine</i>	1.5
Module 2: <i>Basics of Genetics</i>	5.8
Module 3: <i>The Professional Landscape</i>	1.8
Module 4: <i>Identification of Genetic Disorders in Your Practice and the Referral Process</i>	3.0
Module 5: <i>Genetic Testing</i>	4.0
Module 6: <i>Ethical Considerations: Informed Consent &amp; Implications of Genetic Testing</i>	1.5
<i>Approximate Total Hours:</i>	17.6

#### B. Specialty Modules:

Topic	Hours
Specialty Module 1: <i>Pediatrics</i>	7.2
Specialty Module 2: <i>Oncology</i>	2.5
Specialty Module 3: <i>Cardiology</i>	1.5
Specialty Module 4: <i>Neurology</i>	1.5
Specialty Module 5: <i>Preconception and Prenatal Genetics</i>	1.5
<i>Approximate Total Hours:</i>	14.2

## Learner Expectations

The learner will be required to complete all 6 core modules and select at least 1 specialty area - cardiology, pediatrics, oncology, neurology or preconception and prenatal. The average length of time for completion of the certificate is approximately 8 weeks.

Upon completion of the certificate, the learner will receive Continuing Medical Education (CMEs) credits for their respective specialty along with a certificate of completion from ASU.

## Requirements

In order to receive the CME/CE credit, participants must pass all end-of-module knowledge checks with 80% accuracy.

Participants must:

1. Complete Core Modules 1 through 6.
2. Complete at least 1 out of 5 Specialty Modules.
3. Submit a pre-course survey prior to beginning the course.
4. Submit a post-course survey upon completion of the final module.

## Modules and Learning Objectives

### Core Modules

*The following modules will form the foundation of the course. Every participant will need to successfully complete all of the modules in this section to receive a certificate of completion.*

Core Module	Learning Objectives
<b>Course Introduction and Overview</b> (K. Hunt Brendish, B. Peter) <b>Length:</b> 30 min.	
<b>Module 1:</b> <i>Why Genetics? New Era of Genomics &amp; Personalized/Precision Medicine</i> <b>Instructors:</b> K. Hunt Brendish, B. Peter, N. Scherer <b>Length:</b> 60 min.	<b>Learning Objectives:</b> <ol style="list-style-type: none"><li>1. Discuss how identifying a hereditary disorder can alter medical management recommendations and improve patient outcomes</li><li>2. Describe cases as examples of individuals who benefited from therapy based on knowledge of their genetic makeup</li><li>3. Define personalized/precision medicine and how it is more effective than traditional approaches to therapy</li><li>4. Name three suggested core competencies in genetics that apply to all healthcare providers</li></ol>
<b>Module 2 – Part 1:</b> <i>Basics of Genetics</i>	<b>2.1 Chromosomes, Genes and Humans</b> <b>Learning Objectives:</b>

Core Module	Learning Objectives
<p><b>Instructor:</b> B. Peter</p> <p><b>Length:</b> 1 hr. 20 min.</p>	<ol style="list-style-type: none"> <li>1. Define Mendel’s three laws (Segregation, Independent Assortment, Dominance)</li> <li>2. Name three breakthrough discoveries in the history of genetics</li> <li>3. Define the terms genome and exome and explain the difference</li> <li>4. Describe the process of egg and sperm cell generation</li> <li>5. Define the Central Dogma using the terms DNA, transcription, translation, amino acid, and protein</li> <li>6. Describe at least two differences between nuclear and mitochondrial DNA</li> <li>7. Describe how genes are regulated and expressed</li> <li>8. Describe how epigenetic changes influence how genes work</li> </ol>
<p><b>Module 2 – Part 2:</b> <i>Basics of Genetics</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<p><b>2.2 Types of Genetic Variants and How Genetic Variants Cause Disorders</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. List the three major classifications of genetic variants (mutations) identified in our genome</li> <li>2. Provide at least three examples of a genetic disease caused by each of the three type of genetic variants reviewed</li> <li>3. Identify the best genetic test to detect each type of genetic variant</li> <li>4. Describe the complexity of determining the genetic causes of common diseases</li> </ol>
<p><b>Module 2 – Part 3:</b> <i>Basics of Genetics</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<p><b>2.3 Categories of Genetic Diseases</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe three categories of genetic diseases</li> <li>2. Identify the inheritance patterns for each category of disease</li> <li>3. Appreciate the incidence of each category of genetic disease in the general population</li> <li>4. List the clinical features of a common genetic disease from each category</li> </ol>
<p><b>Module 2 – Part 4:</b> <i>Basics of Genetics</i></p>	<p><b>2.4 Modes of Inheritance &amp; Non-traditional Inheritance</b></p> <p><b>Learning Objectives:</b></p>

Core Module	Learning Objectives
<p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<ol style="list-style-type: none"> <li>1. Identify the classic modes of inheritance including: autosomal dominant, autosomal recessive, X-linked recessive and X-linked dominant</li> <li>2. Describe nontraditional inheritance patterns &amp; factors that influence inheritance patterns including: <ul style="list-style-type: none"> <li>– Mitochondrial inheritance</li> <li>– Multifactorial inheritance</li> <li>– Mosaicism</li> <li>– Sporadic/De novo</li> <li>– Trinucleotide repeat expansion</li> <li>– Penetrance and Expressivity</li> <li>– Genomic imprinting</li> <li>– X-inactivation</li> </ul> </li> <li>3. Discuss the clinical features of four genetic disorders to illustrate exceptions to classic inheritance patterns</li> </ol>
<p><b>Module 3 – Part 1:</b></p> <p><i>The Professional Landscape</i></p> <p><b>Instructor:</b> B. Peter</p> <p><b>Length:</b> 15 min.</p>	<p><b>3.1 Overview of the World of Genetic Services</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe the professional roles of <ul style="list-style-type: none"> <li>– Genetic counselors</li> <li>– Clinical geneticists</li> <li>– Clinical laboratory geneticists</li> <li>– Research scientists</li> <li>– Education in genetics</li> </ul> </li> </ol>
<p><b>Module 3 – Part 2:</b></p> <p><i>The Professional Landscape</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 45 min.</p>	<p><b>3.2 What is Genetic Counseling?</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe the training required to become a genetic counselor</li> <li>2. Discuss the differences between a geneticist and a genetic counselor</li> <li>3. Summarize the role of a genetic counselor in clinical practice</li> <li>4. Identify a genetic counselor in your area</li> </ol>
<p><b>Module 3 – Part 3:</b></p> <p><i>The Professional Landscape</i></p>	<p><b>3.3 What is My Role on an Interprofessional Team that Includes Genetics Professionals?</b></p> <p><b>Learning Objectives:</b></p>

Core Module	Learning Objectives
<p><b>Instructor:</b> N. Scherer and K. Will</p> <p><b>Length:</b> 45 min.</p>	<ol style="list-style-type: none"> <li>1. Define an interprofessional team</li> <li>2. Describe the five major functions within an interprofessional team</li> <li>3. Describe the key characteristics of a "good team"</li> </ol>
<p><b>Module 4 – Part 1:</b></p> <p><i>Identification of Genetic Disorders in Your Practice and the Referral Process</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 60 min.</p>	<p><b>4.1 How to Identify a Possible Genetic Disorder</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Discuss the importance of taking a good family history in order to identify a possible hereditary condition and for providing an accurate risk assessment</li> <li>2. Recognize pedigree symbols and how to draw and interpret a three-generation pedigree</li> <li>3. Provide your patient with resources for how to collect, update and document family history information</li> </ol>
<p><b>Module 4 – Part 2:</b></p> <p><i>Identification of Genetic Disorders in Your Practice and the Referral Process</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 60 min.</p>	<p><b>4.2 “Red Flags” for a Possible Genetic Disorder &amp; When to Refer to a Genetic Specialist?</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Identify the clinical “red flags” for a possible genetic disease</li> <li>2. Recognize the most common referral indications for reproductive genetics, pediatric and adult genetics</li> <li>3. Gather the appropriate clinical information to provide a genetics clinic when making a referral.</li> </ol>
<p><b>Module 4 – Part 3:</b></p> <p><i>Identification of Genetic Disorders in Your Practice and the Referral Process</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 60 min.</p>	<p><b>4.3 How to Discuss a Genetics Referral with a Patient &amp; Identify a Genetics Provider</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Discuss the reason you are recommending a genetic consultation</li> <li>2. Address potential concerns about a genetic consultation</li> <li>3. Prepare your patients for what type of information they need to bring to a genetic consultation and what to expect during their genetics appointment</li> <li>4. Identify a genetic specialist in your area</li> </ol>
<p><b>Module 5 – Part 1:</b></p> <p><i>Genetic Testing</i></p>	<p><b>5.1 Types, Methods and Applications of Genetic Tests</b></p> <p><b>Learning Objectives:</b></p>

Core Module	Learning Objectives
<p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<ol style="list-style-type: none"> <li>1. Review the most common types of genetic tests available in clinical care</li> <li>2. List the differences between three major genetic testing methods</li> <li>3. Identify the clinical indications and scenarios applied to each genetic testing method</li> </ol>
<p><b>Module 5 – Part 2:</b> <i>Genetic Testing</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 60 min.</p>	<p><b>5.2 Interpretation of Genetic Test Results</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe the rationale for developing standards and guidelines for the interpretation of sequence variants</li> <li>2. List the five-tier terminology system proposed by the American College of Medical Genetics (ACMG) and the Association for Molecular Pathology (AMP) to describe sequence variants</li> <li>3. Describe the potential clinical implications of a positive, negative and variant of uncertain significance genetic test result</li> <li>4. Discuss why the correct interpretation of genetic test results is so critical to patient care</li> </ol>
<p><b>Module 5 – Part 3:</b> <i>Genetic Testing</i></p> <p>Instructor: K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<p><b>5.3 Direct-to-Consumer Genetic Testing</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe direct-to-consumer (DTC) genetic tests and the types of DTC tests available</li> <li>2. Explain the technology used for DTC tests and contrast this to clinical genetic testing</li> <li>3. Identify the risks and limitations of DTC test reports</li> <li>4. Discuss the reasons individuals pursue DTC testing</li> <li>5. Respond to patient inquiries about pursuing DTC tests and sharing DTC test reports with you</li> </ol>
<p><b>Module 6:</b> <i>Ethical Considerations: Implications of Genetic Testing &amp; A Reciprocal</i></p>	<p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Articulate and address patients concerns surrounding genetic testing and receiving the diagnosis of a genetic disorder</li> </ol>

<b>Core Module</b>	<b>Learning Objectives</b>
<p><i>Decision-Making Consent Process</i></p> <p><b>Instructor:</b> (K. Hunt Brendish)</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<ol style="list-style-type: none"> <li>2. Review the possible unintended consequences of genetic testing without proper pre-test informed consent</li> <li>3. Discuss how genetic/genomic testing, challenges traditional models of informed consent</li> <li>4. Engage patients in a reciprocal decision-making conversation surrounding genetic testing</li> </ol>

**Specialty Modules**

*The specialty modules are designed to allow healthcare professionals a deeper dive into a specific area of clinical genetics. Specialty modules focus on specific populations and/or areas of medicine that are pertinent to interprofessional healthcare audience. Participants should complete the core modules along with one area of specialty to receive the certificate of completion.*

<b>Specialty Module</b>	<b>Learning Objectives</b>
<p><b>Specialty Module 1 – Part 1:</b></p> <p><i>Pediatrics</i></p> <p><b>Instructor:</b> B. Peter</p> <p><b>Length:</b> 35 min.</p>	<p><b>1.1 Intellectual Disabilities</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Define intellectual disability</li> <li>2. Distinguish between syndromic and nonsyndromic forms of intellectual disability and describe an example of syndromic intellectual disability</li> <li>3. Describe some possible strategies to determine the genetic cause of unidentified (e.g., nonsyndromic) intellectual disability</li> <li>4. Describe the course of action that the medical or clinical service provider can take when a genetic or chromosomal cause of an intellectual or learning is suspected</li> <li>5. List the benefits of a genetics workup</li> </ol>
<p><b>Specialty Module 1 – Part 2:</b></p> <p><i>Pediatrics</i></p> <p><b>Instructor:</b> B. Peter</p>	<p><b>1.2 Learning Disabilities &amp; Disorders of Spoken &amp; Written Language</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Define learning disabilities (“learning differences”)</li> </ol>

Specialty Module	Learning Objectives
<p><b>Length:</b> 75 min.</p>	<ol style="list-style-type: none"> <li>2. Define the major disorders of spoken and written language: speech sound disorder, developmental language disorder, stuttering, dyslexia</li> <li>3. Distinguish between syndromic and nonsyndromic presentation of communication disorders and describe an example of a syndromic presentation</li> <li>4. Describe some of the known genetic variations associated with these disorders</li> <li>5. Describe the course of action that the medical or clinical service provider can take when a genetic or chromosomal cause of a learning or communication disability is suspected</li> <li>6. List the benefits of a genetics workup</li> </ol>
<p><b>Specialty Module 1 – Part 3:</b> <i>Pediatrics</i> <b>Instructor:</b> N. Scherer <b>Length:</b> 45 min.</p>	<p><b>1.3 Clefting &amp; Other Craniofacial Conditions</b> <b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Define the primary types of cleft lip and/or palate.</li> <li>2. Distinguish between syndromic and nonsyndromic presentations of cleft lip and/or palate</li> <li>3. Give examples of autosomal dominant and recessive syndromes associated with cleft lip and/or palate</li> <li>4. Describe the composition of a cleft palate team</li> <li>5. Describe the process for genetic referrals for children with clefts</li> </ol>
<p><b>Specialty Module 1 – Part 4:</b> <i>Pediatrics</i> <b>Instructor:</b> K. Aleck <b>Length:</b> 1 hr. 30 min.</p>	<p><b>1.4 Discovery at the Speed of Sound: The Genetics of Deafness</b> <b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Identify the anatomy and physiology of hearing</li> <li>2. Recognize the environmental and genetic causes of hearing loss</li> <li>3. Recognize the need to test children for hearing loss</li> </ol>
<p><b>Specialty Module 1 – Part 5:</b> <i>Pediatrics</i> <b>Instructor:</b> T. Grebe</p>	<p><b>1.5 Unraveling the Etiology of Autistic Spectrum Disorders: An Approach to Genetic Evaluation</b> <b>Learning Objectives:</b></p>

Specialty Module	Learning Objectives
<p><b>Length:</b> 1 hr. 30 min.</p>	<ol style="list-style-type: none"> <li>1. Recognize several syndromes, chromosome abnormalities, and genes that are associated with autism</li> <li>2. Identify the role of genetics in autism from both a clinical and scientific perspective</li> <li>3. Recognize the appropriate laboratory evaluations for a child with autism</li> <li>4. Recognize the impact of a genetic evaluation and diagnosis in the medical management of individuals with autism</li> </ol>
<p><b>Specialty Module 1 – Part 6:</b> <i>Pediatrics</i> <b>Instructor:</b> A. Ryan <b>Length:</b> 1 hr. 40 min.</p>	<p><b>1.6 Who to Refer: Common Referral Indications for a Pediatric Genetics Evaluation</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Identify “who to refer” for pediatric genetics’ evaluation</li> <li>2. Identify common features found in each category discussed (connective tissue disorders, developmental delay, lysosomal storage disorders, congenital heart disease)</li> <li>3. Give examples of genetic conditions in each category</li> <li>4. Recognize the genetic cause of those conditions</li> <li>5. Find a provider to whom you can refer patients for a genetics evaluation in Arizona</li> <li>6. Identify a genetics clinic outside of Arizona</li> </ol>
<p><b>Specialty Module 2 – Part 1:</b> <i>Oncology</i> <b>Instructor:</b> K. Hunt Brendish <b>Length:</b> 60 min.</p>	<p><b>2.1 Hereditary Cancer Syndromes</b></p> <p><b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Define oncogenes and tumor suppressor genes and their role in carcinogenesis</li> <li>2. Explain the difference between acquired/sporadic and hereditary cancer</li> <li>3. Identify three key features of a hereditary cancer syndrome</li> <li>4. Describe multi-gene panel testing for hereditary cancer syndromes</li> <li>5. Compare and contrast germline genetic testing and somatic genetic testing and provide an example of how germline and somatic genetic test results can inform treatment options</li> </ol>

Specialty Module	Learning Objectives
<p><b>Specialty Module 2 – Part 2:</b> <i>Oncology</i> <b>Instructor:</b> J. Mikhael <b>Length:</b> 1hr. 30 min.</p>	<p><b>2.2 Bringing Genomics to the Cancer Clinic</b> <b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Explain the importance of precision medicine in cancer including incidence of genetic mutations and types of genes.</li> <li>2. Outline the basis for biomarkers in oncology and their spectrum of use.</li> <li>3. Outline the basis for gene-based testing for liquid biopsy and spectrum of use.</li> </ol>
<p><b>Specialty Module 3:</b> <i>Cardiology</i> <b>Instructor:</b> K. Hunt Brendish <b>Length:</b> 1 hr. 30 min.</p>	<p><b>3.1 Hereditary Cardiovascular Disorders</b> <b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe the genetic variation underlying the heritable component of cardiovascular disorders</li> <li>2. List the most common types of single-gene cardiovascular disorders</li> <li>3. Identify individuals who are at-risk to be affected by an inherited cardiovascular disorder</li> <li>4. Discuss genetic testing recommendations for inherited cardiovascular disorders</li> <li>5. Describe how (pediatric &amp; adult) cardiologists can partner with geneticists/genetic counselors to develop a specialized clinical cardiovascular genetics program</li> </ol>
<p><b>Specialty Module 4:</b> <i>Neurogenetics</i> <b>Instructor:</b> K. Hunt Brendish <b>Length:</b> 1 hr. 30 min.</p>	<p><b>4.1 Genetic Characteristics of Parkinson and Alzheimer Disease</b> <b>Learning Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Describe the genetic contribution to Alzheimer disease (AD) and Parkinson disease (PD)</li> <li>2. Identify the complexities associated with predisposition genetic testing for AD, PD and other neurodegenerative disorders</li> <li>3. Review pre-symptomatic genetic testing protocols for neurodegenerative disorders</li> </ol>
<p><b>Specialty Module 5:</b></p>	<p><b>5.1 Preconception and Prenatal Genetics</b> <b>Learning Objectives:</b></p>

Specialty Module	Learning Objectives
<p><i>Preconception and Prenatal Genetics</i></p> <p><b>Instructor:</b> K. Hunt Brendish</p> <p><b>Length:</b> 1 hr. 30 min.</p>	<ol style="list-style-type: none"> <li>1. Discuss the purpose of carrier screening prior to conception</li> <li>2. Describe the technology available to help couples avoid having a child with a genetic disease</li> <li>3. Review the various types of prenatal screening and diagnostic testing available and identify the differences between screening and diagnostic testing</li> <li>4. List the possible referral indications for a pre-conception and a prenatal genetic consultation</li> </ol>

### CME Designation Statement



In support of improving patient care, this activity has been planned and implemented by the College of Health Solutions at Arizona State University. The ASU Office of Interprofessional Continuing Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the health care team.



This activity was planned by and for the health care team, and learners can receive up to 31.8 Interprofessional Continuing Education (IPCE) credits for learning and change.

### Activity Planning Committee and Contact Information

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**Conflict of Interest Disclosure**

- Dr. Hunt Brendish has no financial or nonfinancial disclosures to report for this activity.*
- Ms. Contreras has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Dahl-Popolizio has no financial or nonfinancial disclosures to report for this activity.*
- Ms. Madden has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Neilson has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Peter has no financial or nonfinancial disclosures to report for this activity.*
- Ms. Raney has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Rao has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Scherer has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Will has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Aleck has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Grebe has no financial or nonfinancial disclosures to report for this activity.*
- Dr. Mikhael has no financial or nonfinancial disclosures to report for this activity.*
- Ms. Ryan has no financial or nonfinancial disclosures to report for this activity.*