



Pharmacogenomics Certificate Program

Program Overview

This program has been designed specifically for health-system pharmacists to provide them with the knowledge of genetic factors that influence drug disposition, response, and adverse effects. Program participants will gain the practical clinical skills necessary to apply precision medicine at their own practice settings.

Topics Covered:

- Pharmacogenomics fundamentals
- Clinical implementation issues and educational resources
- Drug-induced hypersensitivity reactions
- Neurology
- Psychiatry/Pain
- Cardiology
- Oncology

Special Features:

- Free genetics test kit and results (wide range of genes) to first **50 registrants**
- Practice-based
- 15 total hours of CPE
- Taught by a cadre of expert faculty

Live Program Overview:

- Participants will learn how to apply the information presented online and at the live program;
- Faculty will present evidence-based and practice-based patient cases through an interactive forum;
- Participants will have an opportunity to review and interpret their personal genetic report.

Online Program Description

Online Home Studies
<p>Title: Pharmacogenomics Fundamentals</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• Describe the definition of pharmacogenomics• Describe the benefits and challenges of pharmacogenomics• Explain basic pharmacogenomics nomenclature• List examples of clinical applications of pharmacogenomics
<p>Title: Clinical Implementation Issues and Educational Resources</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• Describe ethical, legal, social issues (ELSI) related to pharmacogenomics implementation in clinical practice• List practical suggestions to effectively integrate pharmacogenomics into clinical practice• Identify and use available pharmacogenomics information

Online Home Studies

Title: **Neurology**

Learning Objectives:

- List the genotype variants involved in anticonvulsant efficacy and toxicity
- Discuss the current recommendations for pharmacogenomic testing for anticonvulsants
- Describe the interaction between genotype variants and ethnic groups involved in hypersensitivity reactions for anticonvulsants
- Describe challenges in clinical implementation of pharmacogenomic tests for anticonvulsants

Title: **Psychiatry/Pain**

Learning Objectives:

- List the genotype variants involved in antidepressant and opioid efficacy and toxicity
- Discuss the current recommendations for pharmacogenomic testing for antidepressants and opioids
- Describe challenges in clinical implementation of pharmacogenomic tests for antidepressants and opioids

Title: **Drug-Induced Hypersensitivity Reactions**

Learning Objectives:

- List the genotype variants associated with drug-induced hypersensitivity reactions
- Discuss the current recommendations for pharmacogenomic testing for commonly used drugs associated with hypersensitivity reactions
- Explain how the identification of specific polymorphisms of certain drugs translate into clinical application

Title: **Oncology**

Learning Objectives:

- Describe how the germline genome affects drug exposure and/or toxicity in oncology patients
- Discuss the current development of pharmacogenomics associated with the clinical practice in oncology
- Describe the various applications of pharmacogenomics in oncology clinical practice

Title: **Cardiology**

Learning Objectives:

- List the genotype variants involved in the efficacy of antiplatelet and anticoagulant agents
- Discuss the current recommendations for pharmacogenomic testing for antiplatelet and anticoagulant agents
- Describe challenges in clinical implementation of pharmacogenomic testing for antiplatelet and anticoagulant agents

Faculty Information

Grace M. Kuo, PharmD, MPH, PhD, FCCP, FNAP

Professor of Clinical Pharmacy

Associate Dean for Strategic Planning and Program Development

UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences

Adjunct Professor of Family Medicine and Public Health

Director of SDPharmNet™; Director of PharmGenEd™

Jerika T. Lam, PharmD, AAHIVP, FCSHP

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Javad Tafreshi, Pharm.D., BCPS-AQ Cardiology, F.A.H.A.

Professor and Chair
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Director, PGY2 Cardiology Pharmacy Residency Program
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Sun (Coco) Yang, B.Pharm, Ph.D, BCPPS, APh.

Assistant Professor
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Chapman University School of Pharmacy

Shaun Opie, PhD (live session guest speaker)

Chief Scientific Officer
Vantari Genetics

Accreditation Information

Activity Number: 0126-0000-17-589-B01-P

Release Date: 10/25/17

Expiration Date: 10/25/20

Activity Type: Practice-based

Target Audience: Pharmacists

Duration: 15 contact hours: 7 hours online/8 hours live

No partial credit given

Cost: \$345 CSHP Members | \$745 CSHP non-members

Claiming Credit: Participants will be provided a session code for the entire certificate program at the live event. All online home studies must be completed and passed to attend the live portion.

NOTE: If a participant fails to complete any portion of the program, no refund will be given.



The California Society of Health System Pharmacists is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.