

Table S1: Training Program Description

Session Title	Learning Objectives
Pharmacogenomics Core Concepts	
Pharmacogenomics: Core Concepts	<ol style="list-style-type: none"> 1. Explain relevant genomic terminology and concepts. 2. Identify pharmacokinetic and pharmacodynamics sources of genetic variation. 3. Describe the impact of common genetic variations in CYP450 enzymes on anticipated drug response. 4. Identify common genetic variants in drug transporters and drug targets (e.g. SLC01B1, VKORC1) that impact response to drug therapy
Pharmacogenomics: Application to Pharmacy Practice	<ol style="list-style-type: none"> 1. Interpret a genotype for a given P450 enzyme and describe anticipated response on drug action. 2. Describe the available information sources for interpreting pharmacogenomic information 3. Describe the role of the CPIC guidelines. 4. Describe the pharmacist role in the field of pharmacogenomics
Genotyping Laboratory Procedures	<ol style="list-style-type: none"> 1. Describe the process of pharmacogenomics testing, from sample collection to report generation.
Applications of Pharmacogenomics in Practice	
Pharmacogenomics in Psychopharmacology: Antidepressants, Anxiolytics and Antipsychotics	<ol style="list-style-type: none"> 1. Identify which gene-drug relationships have evidence to support their implementation for antidepressant and antipsychotic therapy. 2. Summarize the CPIC¹ guideline recommendations for pharmacogenetics of relevant antidepressant therapy including selective serotonin reuptake inhibitors and tricyclic antidepressants. 3. Discuss potential applications of pharmacogenetics to antipsychotic therapy.
Pharmacogenomics: Opioid therapy	<ol style="list-style-type: none"> 1. Describe the impact of genetic polymorphisms on anticipated response to opioid therapy. 2. Describe the evidence-based guideline recommendations for codeine therapy based on CYP2D6 genotype.
Cardiovascular Pharmacogenomics	<ol style="list-style-type: none"> 1. Describe the evidence and guideline recommendations for genotype guided warfarin dosing. 2. Describe the impact of CYP2C19 polymorphisms on clopidogrel therapy. 3. Discuss the impact of SC01B1 polymorphisms on risk of adverse effects with simvastatin therapy.
Case Discussions: Applying Pharmacogeno- mic Testing in Practice	<ol style="list-style-type: none"> 1. Interpret a pharmacogenetic testing report. 2. For a given patient scenario, identify relevant pharmacogenetic variations that may impact drug therapy, and develop recommendations to optimize therapy.
Implementing Pharmacogenomic Testing into Practice: Communicating with Pati- ents and the Health Care Team	<ol style="list-style-type: none"> 1. Describe an approach to educate both a patient and other healthcare professionals about pharmacogenomics test results. 2. Describe the key pieces of information to include in documentation of pharmacogenomic testing results and treatment plans. 3. Discuss ethical and legal implications of pharmacogenomic testing.

¹CPIC - Clinical Pharmacogenetic Implementation Consortium <https://cpicpgx.org/guidelines/>