



# The Genomic Healthcare Branch

Division of Policy, Communications  
and Education

NHGRI

Donna Messersmith, PhD

Inter-Society Coordinating Committee

January 24, 2017

# Organization Summary

- Government organization
- Genomic Healthcare Branch currently has four people:
  - Bob Wildin, MD, Chief
  - Donna Messersmith, PhD, Health Policy Analyst
  - Ashley Lewis, Scientific Program Analyst
  - Faye Brown, Operations Coordinator (part-time)
  - Recruitment in progress for Clinical Policy Analyst
- Purpose: promote the effective integration of genomic discoveries into healthcare through practitioner education, policy change, and health IT infrastructure.

## Status of organization provider education and genomics

*We have active programs addressing provider genomic literacy – here's what's working*

**Program title(s):** Genomics education websites and in-person “Short Course in Genomics for Health Professional”

**Types:** resource repository (G2C2); genomic case studies (G3C); webinar series for insurers; nurse genomics collaborations

**Strategies:** collaborate with genomics education providers in multiple healthcare disciplines; partner with professional organizations including Blue Cross

**Evaluation of trainee competence:**

**Systematic evaluation of program:** Short Course evaluated each day; obtained ongoing feedback from participants about value and impact of the course; identified collaborations that resulted from the course. Performed usability testing of G2C2 revisions through paper and “talk aloud” evaluations prior to redesign completion.

**Genetic/genomic expertise provided by:** NHGRI experts and external nurse and physician assistant educators

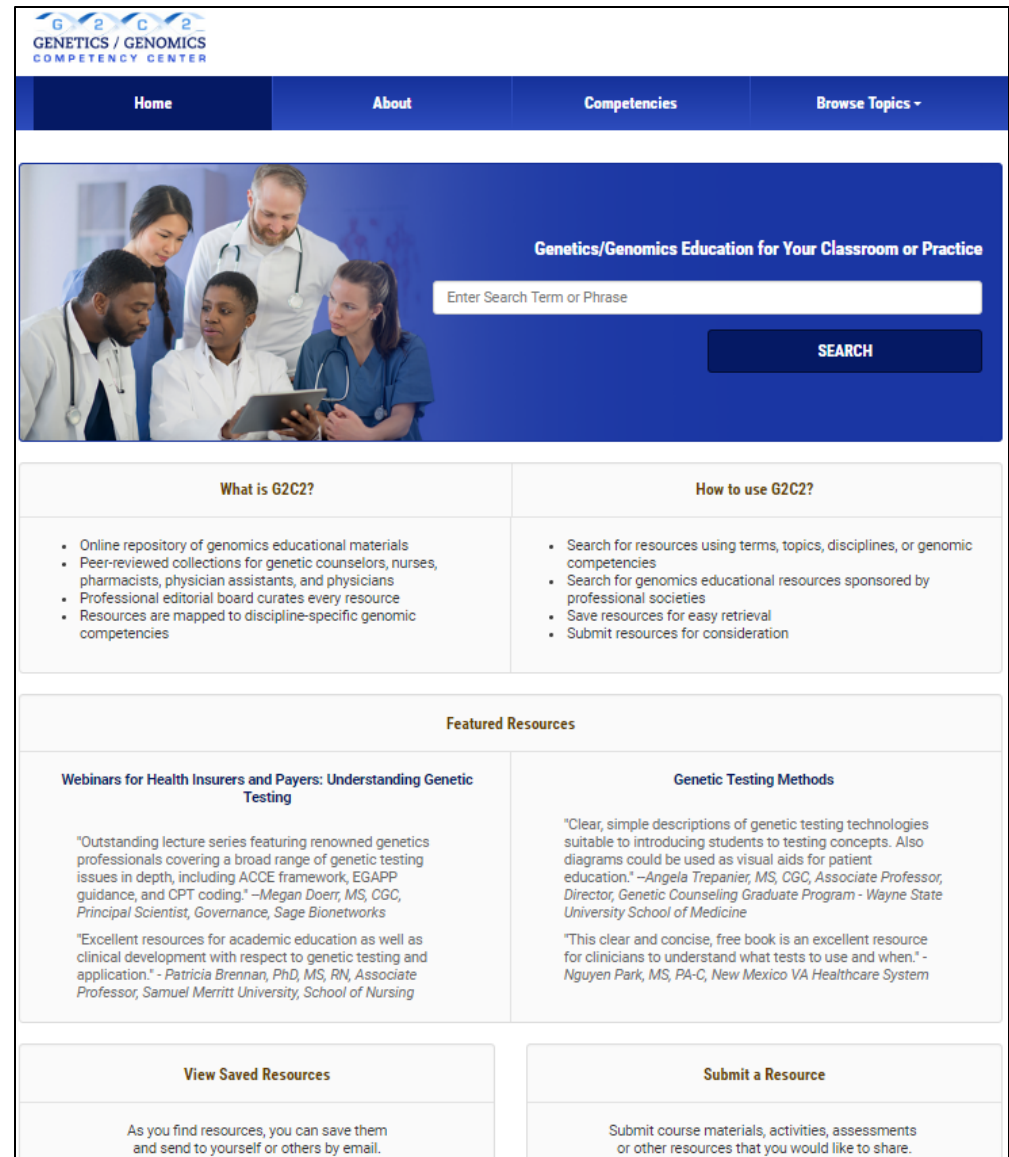
**Timeline:** Ongoing (G2C2 and G3C); annual (Short Course)

**Requests for assistance/collaboration:** ideas for additional case for G3C; postings onto listserv; submissions to G2C2; planning for possible expansion of Short Course

**Requests for RESEARCH programs:** Evaluation of genomics integration into healthcare practice

# G2C2 <http://genomicseducation.net/>

- Genetics/Genomics Competency Center (G2C2)
- Website repository of genomics educational resources mapped to competencies
- Completed redesign and improved usability



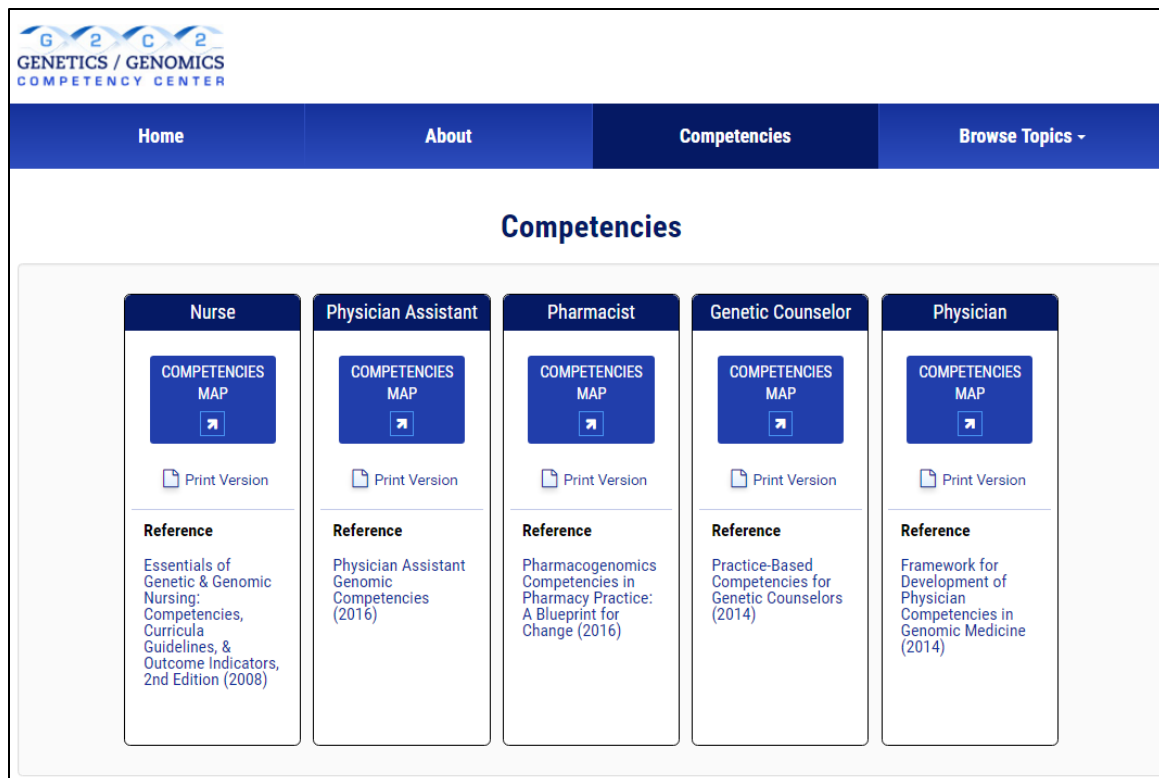
The screenshot shows the homepage of the Genetics/Genomics Competency Center (G2C2). The header includes the G2C2 logo and navigation links for Home, About, Competencies, and Browse Topics. The main banner features a group of healthcare professionals and the text "Genetics/Genomics Education for Your Classroom or Practice" with a search bar and a "SEARCH" button. Below the banner are two columns of information: "What is G2C2?" and "How to use G2C2?". The "What is G2C2?" section lists the online repository, peer-reviewed collections, professional editorial board, and mapped resources. The "How to use G2C2?" section lists search tips, sponsored resources, save options, and submission instructions. Below this is a "Featured Resources" section with two columns: "Webinars for Health Insurers and Payers: Understanding Genetic Testing" and "Genetic Testing Methods". The "Webinars" section includes quotes from Megan Doerr and Patricia Brennan. The "Genetic Testing Methods" section includes quotes from Angela Trepanier and Nguyen Park. At the bottom, there are two columns: "View Saved Resources" and "Submit a Resource".

What is G2C2?	How to use G2C2?
<ul style="list-style-type: none"> <li>• Online repository of genomics educational materials</li> <li>• Peer-reviewed collections for genetic counselors, nurses, pharmacists, physician assistants, and physicians</li> <li>• Professional editorial board curates every resource</li> <li>• Resources are mapped to discipline-specific genomic competencies</li> </ul>	<ul style="list-style-type: none"> <li>• Search for resources using terms, topics, disciplines, or genomic competencies</li> <li>• Search for genomics educational resources sponsored by professional societies</li> <li>• Save resources for easy retrieval</li> <li>• Submit resources for consideration</li> </ul>
Featured Resources	
<p><b>Webinars for Health Insurers and Payers: Understanding Genetic Testing</b></p> <p>"Outstanding lecture series featuring renowned genetics professionals covering a broad range of genetic testing issues in depth, including ACCE framework, EGAPP guidance, and CPT coding." --Megan Doerr, MS, CGC, Principal Scientist, Governance, Sage Bionetworks</p> <p>"Excellent resources for academic education as well as clinical development with respect to genetic testing and application." - Patricia Brennan, PhD, MS, RN, Associate Professor, Samuel Merritt University, School of Nursing</p>	<p><b>Genetic Testing Methods</b></p> <p>"Clear, simple descriptions of genetic testing technologies suitable to introducing students to testing concepts. Also diagrams could be used as visual aids for patient education." --Angela Trepanier, MS, CGC, Associate Professor, Director, Genetic Counseling Graduate Program - Wayne State University School of Medicine</p> <p>"This clear and concise, free book is an excellent resource for clinicians to understand what tests to use and when." - Nguyen Park, MS, PA-C, New Mexico VA Healthcare System</p>
View Saved Resources	Submit a Resource
As you find resources, you can save them and send to yourself or others by email.	Submit course materials, activities, assessments or other resources that you would like to share.

# Competencies:

<http://genomicseducation.net/competency>

- **Genetics/Genomics Competency Center**
  - Genomics competencies published for five disciplines: physician, nurse, physician assistant, pharmacist, genetic counselor
  - Competency maps link users to resources that fulfill competencies



The screenshot displays the 'Competencies' page of the Genetics/Genomics Competency Center. The page features a navigation bar with 'Home', 'About', 'Competencies', and 'Browse Topics'. Below the navigation bar, the title 'Competencies' is centered. The main content area is organized into five columns, each representing a profession: Nurse, Physician Assistant, Pharmacist, Genetic Counselor, and Physician. Each column contains a 'COMPETENCIES MAP' button with a right-pointing arrow, a 'Print Version' link, and a 'Reference' section listing relevant literature.

Nurse	Physician Assistant	Pharmacist	Genetic Counselor	Physician
COMPETENCIES MAP	COMPETENCIES MAP	COMPETENCIES MAP	COMPETENCIES MAP	COMPETENCIES MAP
Print Version	Print Version	Print Version	Print Version	Print Version
<b>Reference</b> Essentials of Genetic & Genomic Nursing: Competencies, Curricula Guidelines, & Outcome Indicators, 2nd Edition (2008)	<b>Reference</b> Physician Assistant Genomic Competencies (2016)	<b>Reference</b> Pharmacogenomics Competencies in Pharmacy Practice: A Blueprint for Change (2016)	<b>Reference</b> Practice-Based Competencies for Genetic Counselors (2014)	<b>Reference</b> Framework for Development of Physician Competencies in Genomic Medicine (2014)

# G3C <http://genomicscases.net/>

- Global Genetics and Genomics Community (G3C)
- Unfolding Case Studies for Genetics and Genomics Healthcare Education
- *Interested in partnerships to develop an additional case*



The screenshot shows the homepage of the Global Genetics and Genomics Community (G3C). At the top, there is a navigation bar with links for Home, Resources, About, and Login / Register. The main content area features a large banner for "GENOMIC HEALTH CARE SIMULATIONS" with a list of bullet points: Interview "patients" at your own pace, Complete supplemental educational activities, Assess your genomic competency, Consider commentary about specific cases from genomic experts, and Earn CNE or CME credit for each case. Below this is a section titled "HOW IT WORKS" with three numbered steps: 1. Login or Register (Join the G3C Learning Portal for free and expand your genetic/genomic knowledge), 2. Choose from 15 Cases (Narrow your search based on topic and level of difficulty), and 3. Start Seeing Patients (Apply what you learn today. Lead your "patients" to quality healthcare outcomes). The page also includes a navigation menu and a footer with the text "Unfolding Case Studies for Genetics & Genomics Healthcare Education".

Global Genetics and Genomics Community

Home Resources About Login / Register

**GENOMIC HEALTH CARE SIMULATIONS**

- Interview "patients" at your own pace
- Complete supplemental educational activities
- Assess your genomic competency
- Consider commentary about specific cases from genomic experts
- Earn CNE or CME credit for each case

**YOU ASK THE QUESTIONS**

Recognize the indications for predisposition genetic testing for a known deleterious mutation in a family.

**HOW IT WORKS**

- 1 Login or Register**  
Join the G3C Learning Portal for free and expand your genetic/genomic knowledge.
- 2 Choose from 15 Cases**  
Narrow your search based on topic and level of difficulty.
- 3 Start Seeing Patients**  
Apply what you learn today. Lead your "patients" to quality healthcare outcomes.

**Unfolding Case Studies for Genetics & Genomics Healthcare Education**

# Webinars for Health Insurers and Payers:

## Understanding Genetic Testing

<https://www.genome.gov/insurersgenetictesting>

- Webinar series for medical staff in the insurance industry
- Goal is to prepare insurers to understand genetic testing strategies, interpretation, outcomes and patient care
- Website with recorded webinars available for continuing education



- Created by the Insurer Staff Education Working Group of ISCC

# Short Course in Genomics: Nurse, Physician Assistant, and Faculty Track

August 1-3, 2016 at NIH

- 21 nurse and 9 PA educators participated
- 9 NHGRI and 7 external presenters
- “Community of Practice” listserv of participants: “Genomics Education for Practitioners”
- Planning for August 2017 course for nurses and PAs

