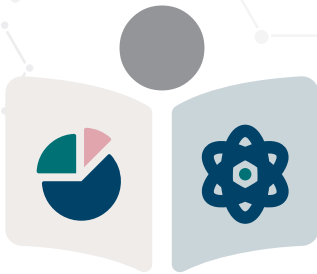


SCHOOL OF PHARMACY AND HEALTH SCIENCES
CENTER FOR TRAINING IN APPLIED GENOMICS

Certificate in Applied Genomics

CAG

The Certificate in Applied Genomics at Keck Graduate Institute (KGI) in Claremont, CA, is an executive education program designed for bioscience industry and healthcare professionals who wish to gain expertise in the rapidly growing field of applied human genomics. The 15-unit program will bring participants up to date in clinical genomics, pharmacogenomics, gene editing technologies, nucleic acid sequencing, epigenomics, and more. The curriculum will also consider the ethical and legal issues raised by these advances.



CLINICAL AND APPLIED FOCUS

Coursework is tailored to how advances in genomics technology and science impact clinical practice, drug discovery, and development.



NETWORKING

Build a professional network with other bioscience industry and healthcare professionals interested in human genomics.



HANDS-ON ACTIVE LEARNING

While interacting with faculty and students in the synchronous, online classroom, students can ask questions and engage in active learning activities based on the latest education and learning practices.

About the Certificate

As human genomics research rapidly moves from promise to practice, the importance of foundational knowledge in human genomics and its applications for healthcare and drug discovery is becoming more vital for professionals in a wide variety of settings.

By completing this Certificate in Applied Genomics, participants will understand and appreciate the science behind the headlines and use this knowledge to impact the bioscience and healthcare industries.

Courses are delivered online with a schedule designed for working professionals. Participants

will benefit from dynamic, live class sessions led by KGI faculty and genomics subject matter experts, in addition to hands-on activities designed to emphasize course learning objectives. There are five courses followed by a capstone.

As enrolled KGI students, participants will also have access to all of the resources and services available to students at The Claremont Colleges, including library access and opportunities to engage with an innovative learning community.

Course Sequence

Intro course	Applied Genomics—Translating Concept to Clinic 1.5 units, 7 weeks	
Fall 1 or 2	Human Variation and Disease 3.0 units, 15 weeks	DNA and RNA Sequencing 3.0 units, 15 weeks
Spring 1 or 2	Clinical Genetics: Actionability and Genome Editing 3.0 units, 15 weeks	Epigenomics 3.0 units, 15 weeks
Capstone	Applied Genomics Capstone 1.5 units, 7 weeks	

Time to completion is approximately one year for an expedited track or two years for a part-time track.

Certificate Objectives

By the end of the certificate, participants will be able to:

- Describe the structure and function of the human genome and epigenome.
- Identify the types and consequences of genetic variation seen in individuals.
- Define clinical actionability and discuss trends in precision genomic medicine.
- Describe current methods and challenges for genome editing as a therapy.
- Demonstrate knowledge of existing public and proprietary bioinformatics databases, tools and software programs.
- Demonstrate knowledge of genomic laboratory and sequencing techniques.
- Manipulate genome-wide datasets to draw conclusions relevant to clinical needs.
- Read and evaluate primary literature in human genetics and genomics.
- Discuss ethical and legal issues related to human and applied genomics.

How to Apply

Dates and Deadlines

The course start dates and deadlines will vary for each course. Visit kgi.edu/cag for updated dates and deadlines.

Application Requirements

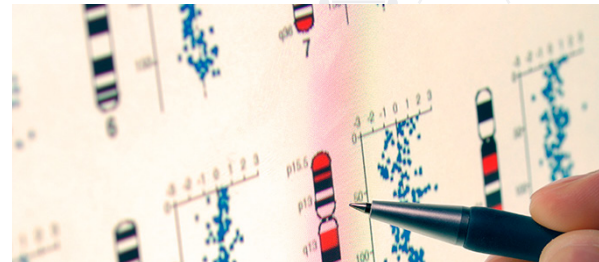
An online application form is required that contains questions about your personal and educational background. Additional requirements can be submitted along with your online application or separately:

- Personal Statement
- CV/Resume
- Letter of Recommendation
- Transcripts

Application Review




The Admissions Committee is made up of faculty and senior administrators who will thoroughly and conscientiously review each application. Applications will be considered in the context of the total applicant pool, as well as in relationship to our general admissions standards. We do not use arbitrary grade point or test score cutoffs.

All admissions decisions are final for the term in which they are rendered.



Contact Us

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