

**ACGME Program Requirements for Graduate Medical Education
in Laboratory Genetics and Genomics
Summary and Impact of New Specialty Requirements**

1. Describe the scope of practice of the new specialty, as well as the process involved in development of the requirements (e.g., date of recognition of the specialty by the ACGME Board, involvement of specialty boards/organizations, etc.).

Scope of practice:

Laboratory genetics and genomics is a laboratory-based discipline that focuses on analysis and interpretation of assays that identify constitutional/germline and somatic/acquired genetic changes underlying human disease. This includes education and training in the technical skills and knowledge necessary to perform and interpret results that impact the diagnosis and management of human genetic diseases. Upon completion of the program, graduates can function as laboratory directors or technical supervisors of clinical laboratories, and as clinical consultants in the management of patients with a broad range of somatic or inherited disorders.

Process:

Laboratory genetics and genomics is a combination of two disciplines: clinical cytogenetics and genomics, and clinical molecular genetics and genomics. The American Board of Medical Genetics and Genomics (ABMGG) has been accrediting programs in clinical cytogenetics and genomics since 1984 and programs in clinical molecular genetics and genomics since 1991. The ABMGG began accrediting the combined laboratory genetics and genomics programs in 2016. In 2017, the ABMGG Board of Directors approved proposing the transition of accreditation of all ABMGG-accredited laboratory genetics and genomics programs to the ACGME.

In June 2017, the ACGME Board of Directors approved the transition of accreditation of laboratory genetics and genomics from the ABMGG to the ACGME. Shortly after that approval, the Review Committee for Medical Genetics and Genomics formed a subcommittee to draft the Program Requirements. The subcommittee consisted of Review Committee members and representation from the ABMGG and the American College of Medical Genetics and Genomics with expertise in the field. The existing ABMGG requirements were converted into the ACGME Program Requirement format, and then refined by the subcommittee.

Laboratory genetics and genomics is one of the first two non-physician disciplines to be approved under the ACGME's post-doctoral accreditation track. Education and training in laboratory genetics and genomics is available to those who have completed an MD or DO degree, or any other doctoral-level degree in a relevant field. Completion of a laboratory genetics and genomics program does not satisfy the requirements for completion of a residency in order to obtain a medical license.

2. How will the proposed requirements improve resident/fellow education?

As one of the first two non-physician disciplines to be accredited by the ACGME, this program will provide access to ACGME-accredited education for an entirely new group of learners. Accreditation of programs in this discipline will also allow those with an MD or DO degree to learn and train side-by-side with colleagues holding a doctoral-level degree in

other related fields, which will allow for new types of collaboration and different perspectives from learners from various backgrounds.

3. How will the proposed requirements improve patient care and patient safety/quality?

Laboratory genetics and genomics is currently accredited by the ABMGG, so these proposed requirements are similar to what has already been in place. As such, there should be no impact on patient care or patient safety/quality, since programs are already adhering to the majority of these proposed requirements.

4. How will the proposed requirements impact continuity of patient care?

Laboratory genetics and genomics is currently accredited by the ABMGG, so these proposed requirements should not impact the continuity of patient care, as programs are already adhering to the majority of these proposed requirements.

5. Will the proposed requirements necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?

The ABMGG designed the requirements for laboratory genetics and genomics to be similar in structure, format, and rigor to ACGME Program Requirements, so most programs are already meeting strict standards. Since the ACGME requirements were drafted by taking the ABMGG requirements and refining them, programs should already be familiar with and adhering to a majority of the proposed requirements.

Since programs in this discipline are currently accredited by the ABMGG, they may not currently be overseen by the institutional Graduate Medical Education Committee (GMEC) or the designated institutional official (DIO). As these programs are overseen by the GMEC and the DIO, there may be a shift of resources within an institution to align their function with other ACGME-accredited programs currently under that same oversight.

As the education and training in this discipline are laboratory-based, laboratory facilities and space that may differ from what is required for other ACGME-accredited programs must be available at the institution. These laboratories will be required to follow strict federal, state, and local regulations. Since many of these programs are already accredited by the ABMGG, the resources in regards to faculty members, volume and variety of patients, and space are likely already in place.

6. How will the proposed requirements impact other accredited programs?

The proposed requirements should have a minimal impact on other ACGME-accredited programs since there are currently 35 ABMGG-accredited laboratory genetics and genomics programs. The programs will be new within the ACGME accreditation system, but they have been accredited for many years. Additionally, since these programs will be accredited under the ACGME's post-doctoral accreditation track, they will be separate from medical specialties and subspecialties accredited by the ACGME.