

Shaping The Future: Evolving a Field-Based Laboratory Rotation to Meet the Needs of Genetic Counseling Students



Breanna Roscow, MS, CGC¹; Merideth Sanders, MS, CGC¹; Heather Bagley, MS, CGC¹; [Sarah Pass](#), MMSc, CGC¹; Flora Days, MS, CGC¹; Sabrina Williams, MS, CGC¹; Shrutika Yeola, MMSc, CGC¹; Jessica Ordonez, MS, CGC¹; Laura Brzeskiewicz, MS, CGC¹

¹ Myriad Genetics, Inc., Salt Lake City, UT

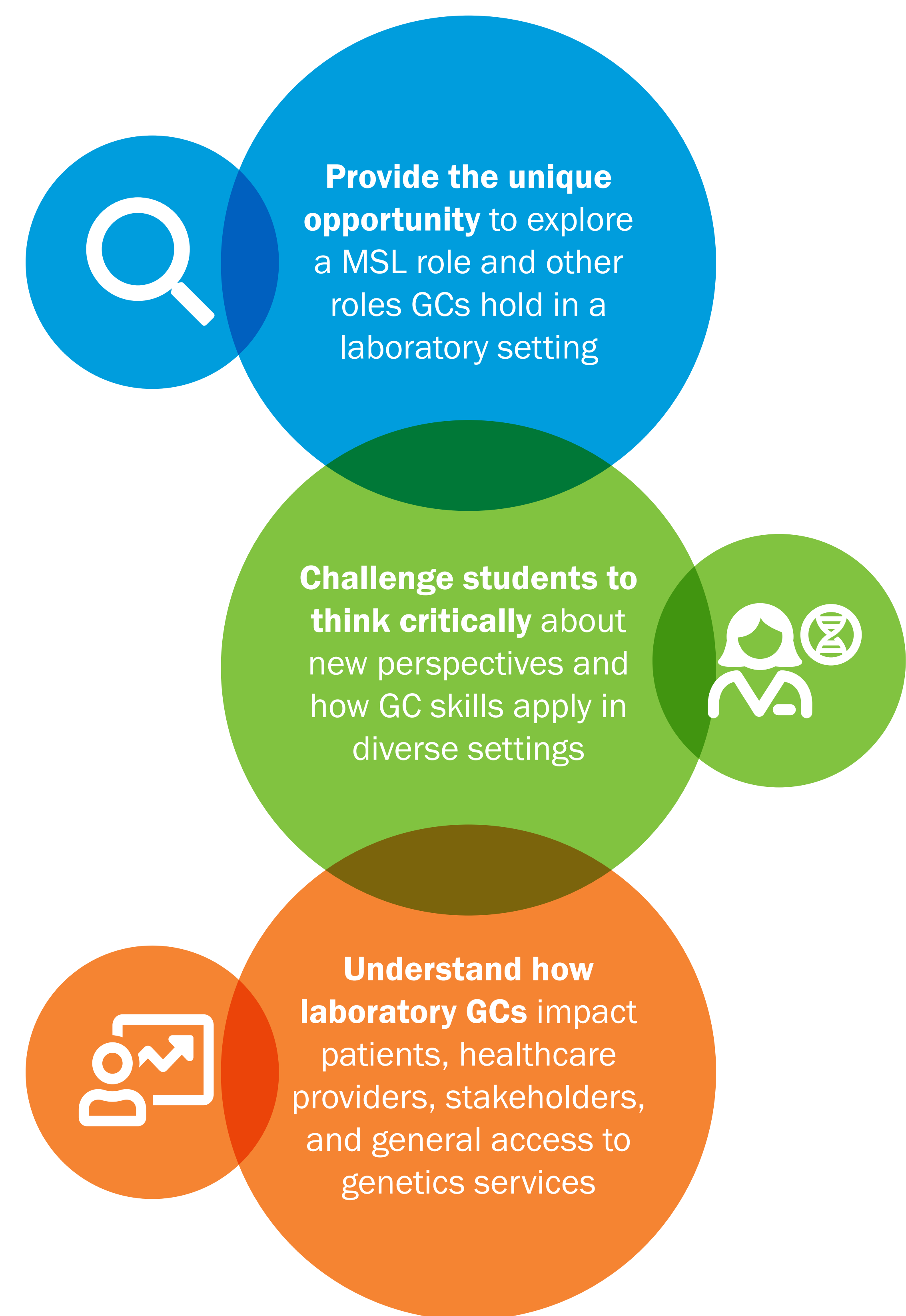
Background

- The number of genetic counselors (GC) in industry roles has expanded over time and currently the second most frequent work setting is with commercial laboratories.¹
- As such, the Accreditation Council for Genetic Counseling (ACGC) has updated standards for GC training to include experiences in diverse settings, including commercial laboratories.²
- Our commercial laboratory field-based rotation (FBR) with medical science liaisons (MSLs) has been offered since 2015.
- In order to adapt and evolve to the needs of GC programs and students, the content used in the FBR needed to be updated. Here we describe the process and outcomes of these updates.

Methods

- A FBR workgroup (FBRW) was formed in August 2023 with the primary goal of updating and centralizing rotation content.
- The FBRW reviewed existing rotation materials and content, identifying what needed updating as well as student assignments/content that needed to be created.
- The number of students and programs accessing the FBR following the changes were compared to an equal 19-month time period prior to FBRW formation (January 2022 – July 2023 vs. August 2023 – April 2025).

Figure 1. Rotation objectives



Results

- From our review, the following changes were identified and implemented:
 - Revision of rotation objectives (**Figure 1**)
 - Updated syllabus and workflow of the rotation (**Figure 2**).
 - Creation of new assignments to diversify learning topics (e.g., oncology tumor testing)
 - Creation of a supervisor standard operating procedures (SOP) document
- Additionally, self-paced learning videos on GC roles within the laboratory (**Table 1**) and topics relevant to genetic testing (**Table 2**) were created and/or updated.
- Following the changes, the full MSL team received training on the FBR and supervisory skills, aimed at increasing interest in FBR participation and support.
- The impact of the workgroup formation on the number of programs, students, and supervisors is described in **Figure 3**.

Figure 2. Field-based rotation workflow and assignments



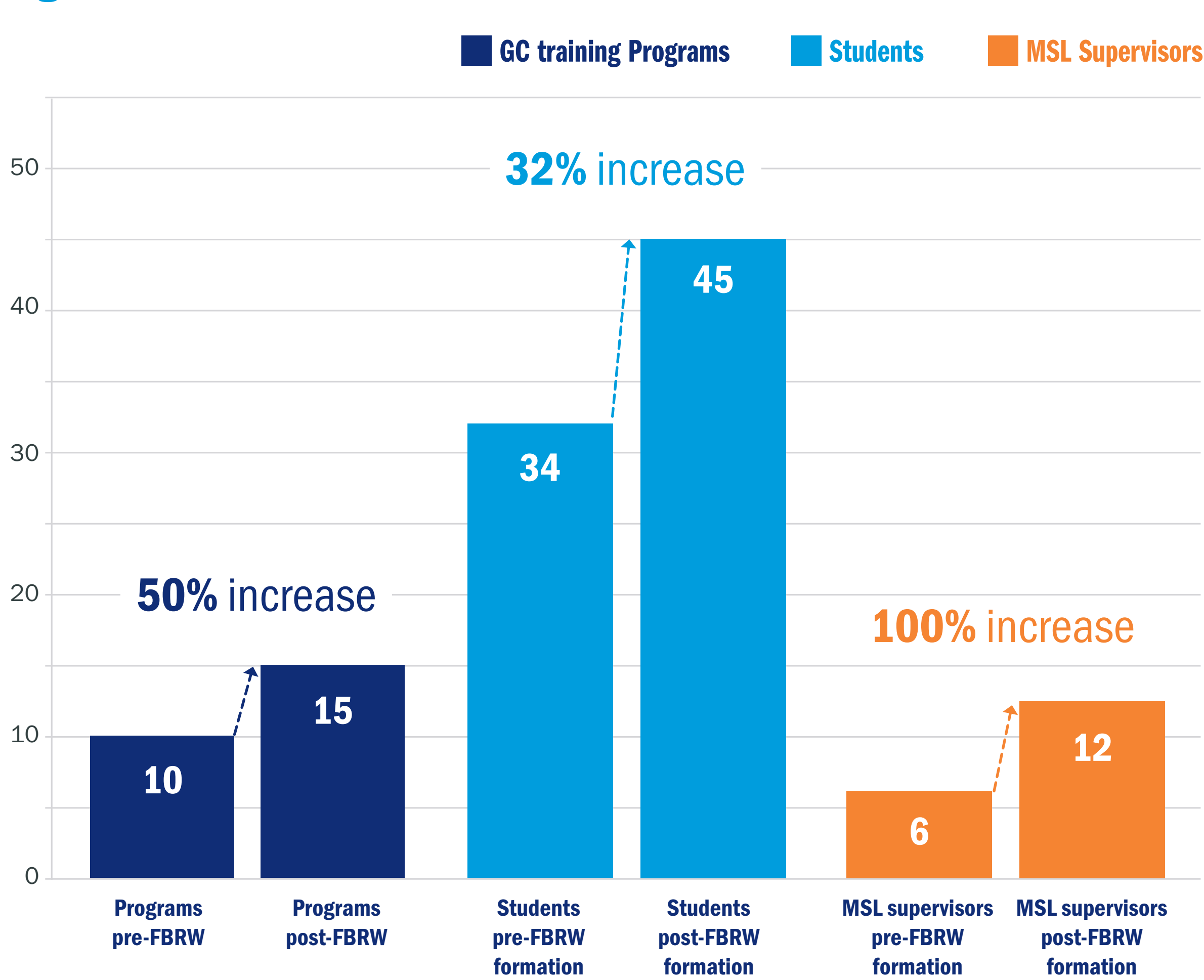
Table 1. Genetic counselor role videos

Roles	Description
Medical Science Liaison (MSL)	Field-based GCs, who provide clinical genetic education and support to providers regarding genetic screening and testing.
Medical Information Liaison (MIL)	Remote GCs who speak to both patients and providers over the phone to answer general clinical inquiries.
Variant Classification in Hereditary Cancer Testing	Variant curation team member focused on hereditary cancer testing.
Variant Classification in Carrier Screening	Variant curation team member focused on carrier screening.
Variant Classification Somatic Testing	Variant curation team member focused on somatic testing.
Leadership	GCs in management and executive leadership, such as Senior Director of Clinical Genomics, Senior VP of Medical Services, and VP of Medical Affairs.
Marketing	GCs who work in resource development and promotion of industry offerings.
Payer Markets	GCs who work with insurance payers on contracts and clinical coverages to increase equitable access to genetic testing/screening.
Commercial Sales	Sales/product representative within the field.

Table 2. Clinical topics videos

Video Title	Details
Breast Cancer Risk Score	Introduction into combined polygenic risk score with personal and family history risks
Common but Complex	Screening for 21-OH Congenital Adrenal Hyperplasia
RNA in Variant Classification	Description of how RNA plays into variant classification
Homologous Recombination Deficiency	Define homologous recombination deficiency, how testing is performed, and how it compares to other somatic testing
Reproductive Technology	Description of reproductive technologies including fetal fraction amplification, rare aneuploidy analysis and microdeletions

Figure 3. Increase in FBR access



Conclusions

- Modernizing the FBR through a collaborative workgroup has resulted in increased involvement of supervisors amongst the MSL team, as well as a more standardized rotation experience for students.
- Due to the creation of the FBRW and content centralization, the FBRW is now better equipped to respond to program requests and subsequently the number of programs and students accessing the FBR has trended upwards.
- Our FBR provides unique opportunities for future GCs to learn about and prepare for industry roles and we continue to evolve the curriculum to meet student's needs.

References: 1. National Society of Genetic Counselors. (2024) 2024 Professional Status Survey, <https://www.nsgc.org/Policy-Research-and-Publications/Professional-Status-Survey>. 2. Accreditation Council for Genetic Counseling. (2023) Standards Of Accreditation for Graduate Programs in Genetic Counseling, https://www.gceducation.org/wp-content/uploads/2024/07/ACGC_StandardsOfAccreditation_2023.pdf.

Disclosures: All authors were employees of Myriad Genetics, Inc. at the time of this study and received salaries and stock as compensation.

Email for Questions: fieldGCrotation@myriad.com