

A New Distance Learning Graduate Program in Emerging Diagnostic Technologies

HANA FUKUTO, GLORIA VIBOUD

ABSTRACT

With an increasing number of molecular-based technologies being introduced, clinical laboratories are faced with a growing need for clinical laboratory scientists (CLSs) specialized in molecular testing. To address this shortage, the New York Health Workforce Retraining Program/Initiative supported the development of a medical molecular biology (MMB) graduate advanced certificate program. Out of 76 CLSs who participated in a needs-based assessment survey, 54 (71%) expressed interest in applying to a program that included molecular diagnostics, flow cytometry, and cytogenetics. The most-cited obstacle for applying was time to attend onsite classes. Based on those needs, a 12-credit distance learning program was created for working professionals who hold a baccalaureate degree in clinical laboratory science. This is the first program in the country that provides a strong foundation in the 3 areas at the core of precision medicine: molecular diagnostics, flow cytometry, and cytogenetics. The program's learning outcomes are consistent with those of the

National Accrediting Agency for Clinical Laboratory Science for diagnostic molecular scientists and those of the American Society for Clinical Pathology (ASCP) for technologists in molecular biology, technologists in cytogenetics, and specialists in cytometry. A preliminary first-quarter assessment survey showed that 100% of the participants are satisfied with the program and find the online format to be very effective as a teaching platform. Upon graduation, 75% of the participants plan to take at least 1 of the previously mentioned ASCP examinations, and 100% are likely to work in any of the 3 specialties. In conclusion, the MMB program can potentially alleviate the shortage of medical technologists with skills in molecular-based testing.

ABBREVIATIONS: ASCP - American Society for Clinical Pathology, CLS - clinical laboratory scientist, MMB - medical molecular biology.

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Hana Fukuto, Clinical Laboratory Sciences, Stony Brook University, Stony Brook, NY

Gloria Viboud, Clinical Laboratory Sciences, Stony Brook University, Stony Brook, NY

Address for Correspondence: **Gloria Viboud**, Clinical Laboratory Sciences, Stony Brook University, Stony Brook, NY, gloria.viboud@stonybrook.edu