

An interview with Brandy Gunsolus. First graduate of the Doctorate of Clinical Laboratory Science

Lauren N Eddington

Brandy Gunsolus is the first graduate of the Doctorate of Clinical Laboratory Science (DCLS) programme in the United States, gaining this qualification from Rutgers University in May 2018. This is a relatively new course, available to qualified medical laboratory scientists with a bachelor's degree and at least two years of work experience. It provides the graduate with a generalist laboratory professional doctorate and a more advanced knowledge of laboratory and management subjects. Since then she has been working in Pathology Utilisation and Physician/Laboratory Liaison at Augusta University Health in Atlanta Georgia. I reached out to Brandy by email to learn more about her experiences and her current role, which includes more involvement with clinicians regarding laboratory usage.

Lauren. Hello! Thanks so much for talking to me. First of all, if you can tell me a little about yourself; what is your medical laboratory background?

Brandy. I initially graduated with a BS degree in Chemistry from Southeastern Louisiana University during a time when the economy was not doing well. The only job I could find was teaching high school science and I quickly realised that it was not for me. I learned about medical laboratory specific education from a neighbour and found a programme that allowed me to complete a 2nd BS degree in CLS in only 15 months. This was a Louisiana State University Health Sciences Center in New Orleans. From there I worked the bench at a large medical center in New Orleans until Hurricane Katrina. I was displaced by the hurricane to North Louisiana and found a position managing a physician office laboratory. There the physicians were able to get to know me and began asking me questions like "what test should I order if I think they have sarcoidosis?" or "how do I interpret this funky test result?" I quickly realised that I did not have enough education to answer the questions they were asking of me. That is when I decided to pursue my master's degree as the DCLS did not exist yet. In my last semester of my master's degree, which I obtained from Rutgers University, the programme director sent me a message stating they had a new degree, the DCLS, explaining what it was and I knew it was so desperately needed. As soon as I graduated from my master's I applied for the DCLS and the rest, as they say, is history.

Lauren. Why did you decide to do the DCLS programme? Especially as the first person to do it!

Brandy. I knew from first-hand experience that there was a gap between physicians and the laboratory. Physicians needed help in ordering the right test, at the right time, and interpreting those test results correctly. The DCLS does this and more! The DCLS rounds with patient care teams provided bedside point-of-contact clinical laboratory consultation, aids in diagnosis through Diagnostic Management Teams, develops and monitoring laboratory utilisation programmes, and performs translational research to improve patient outcomes and laboratory service delivery.

Lauren. What did the programme entail?

Brandy. I took courses in advanced MLS as well as pharmacology, disease, diagnosis, statistics, clinical correlation, and research. It culminated in a 1-year clinical residency and research project. The DCLS combines chemical, genetic, haematology, immunopathology, and microbiology into one.

Lauren. Now that you've been qualified for about a year, how have you been able to use your new qualification?

Brandy. I have developed, implemented, and have been monitoring a system-wide pathology utilisation programme which includes physician education, physician ordering feedback reports, electronic medical record notifications, test algorithm development, and more. I have embarked on a large scale physician education initiative since laboratory medicine has nearly been eliminated from US medical school curriculums. This has been very well received and has made a tremendous impact. The many phone calls, emails, and secure messages I received daily for clinical consultation from physicians has been both great and quite overwhelming. I am so busy that my facility wants to hire more!

Lauren. What does a usual work day look like for you?

Brandy. I typically arrive at 0700 and leave around 1700. My day is spent on patient care rounds in the morning, answering consults throughout the day, attending hospital or laboratory quality meetings after lunch, and working on various research/quality improvement projects in the afternoon. I'm quite busy!

Lauren: I'm specifically interested in the fact that you attend ward rounds, can you explain how that is an important part of your role?

Brandy: Much as the clinical pharmacist ensures correct medications and dosages, I ensure correct lab testing, correct timing of testing, and correct interpretation of test results. This reduces both costs and diagnostic errors.

Lauren. As the first person in this newly developed role you are forging the path for laboratory professionals becoming more integrated into the healthcare team. How has your role been perceived by other hospital staff? And by fellow scientists?

Brandy. The hospital is thrilled with the results and wants to hire more. The physicians are demanding me to do more and more. They want a DCLS on every patient care team. The negative feedback mainly comes from fellow MLS scientists who did not think the DCLS would be accepted.

Lauren. What are your thoughts on how the role of the laboratory will develop looking forward?

Brandy. I think we will see more and more DCLS employed and, much like the clinical pharmacist, see exponential growth as the need is shown and how a DCLS can improve patient outcomes while saving money.

Lauren. And do you have any words of wisdom for us scientists in New Zealand?

Brandy. *I will leave you with a favourite quote of mine: Knowing is not enough; we must apply. Wishing is not enough; we must do (Johann Wolfgang von Goethe).*

Lauren. A big thank you to Brandy Gunsolus for her time and responses.

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Comment on: An interview with Brandy Gunsolus

Michael Legge

Lauren has provided an insight into the development of the Doctor of Clinical Laboratory Science in the USA with the interview of the first programme graduate. In the previous NZIMLS Journal I provided a brief comparative consideration of how this qualification compared with the RCPA Faculty of Science Fellowship and indicated major points of difference between the two qualifications (1). Reading the interview caused me to consider how the Doctorate might compare with an established programme in the UK, the Physician Associate, which has been running for ten years and is overseen by the Royal College of Physicians. The Masters course is offered by over 30 UK Universities and is a two year full-time programme. Overall the Physician Assistants are an integrated part of a medical team and are responsible for performing medical examinations, ordering and interpreting tests and recommending therapy. The examination is based on a National examination and has a recertification requirement by examination every six years and there is an ongoing CPD requirement. The Faculty of Physician Assistants is part of the Royal College of Physicians where a “managed voluntary register” is maintained and is currently under consideration for Registration by the UK Health and Care Professionals Council.

This programme is part of a wider National Health Service Health Care Practitioners training system, which also provides Masters programmes for Advanced Critical Care Practitioner, Surgical Care Practitioner and Physican’s Assistants (Anaesthetics) to work with medical teams. Currently these qualifications are not available in New Zealand.

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REFERENCE

1. Legge M. Comment on the Doctorate of Clinical Laboratory Science programme. *N Z J Med Lab Sci* 2019; 73: 66-67.

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