

# Too few technologists: labs take inventive steps

## Valerie Neff Newitt

April 2019—The tight supply of technologists to fill open positions is pushing laboratories to be creative in finding answers. Memorial Sloan Kettering Cancer Center and TriCore Reference Laboratories found their answers by looking not just outward but also—and largely—inward.

MSK has created an innovative Laboratory Scholars Program that draws employees from other parts of the cancer center, places them in an education program in coordination with a partnering college, and retrains them to become laboratory technologists.

TriCore Laboratories in Albuquerque, NM, designed a Histology Apprenticeship Program that recruits candidates from among TriCore employees to participate in targeted histotechnology training. Those who complete the training successfully can apply for an HT level-one position within the laboratory.



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New York City proves to be a tough recruitment locale for laboratory technologists, says Melissa S. Pessin, MD, PhD, chair of the MSK Department of Laboratory Medicine. “It is worse than in other parts of the country for a few reasons. First, many clinical laboratory scientist training programs had closed in New York State. Second, it is very expensive to live in the New York City metro area, so many lab technologists have worked two jobs. Those reaching retirement age just can’t handle the strain of that anymore; as a result, many of the technologists are retiring,” she says.

In addition, anyone from outside the state has to take the full ASCP Board of Certification exam and undergo a transcript and clinical education review, in accordance with New York State licensure law. “So we can’t easily bring in a specialist—for example, someone who has been doing just micro for 20 years—because that person would have to pass the full board, which presents a challenge.”

Not unique to New York is the general lack of knowledge about the profession, “which certainly doesn’t help any of us.”

With a number of new sites opening over the next few years in the MSK network, Dr. Pessin and others worried there would be far too few laboratory technologists to staff them. In 2013 Dr. Pessin, working with the human

resources department and Cynthia McCollum, senior vice president of hospital operations, started to explore solutions. Dr. Pessin suggested the creation of a scholars program that would include MSK employees, rather than students drawn strictly from outside, in hopes of attracting some of their own employees to the field.

"We don't have our own medical laboratory technology school, and to create one would have been too difficult," Dr. Pessin says. There was no place to house it, and an administrative structure and New York State approval would have been needed. "So we devised an option that no one else had considered. We partnered with another organization in an innovative way."

Tomya Watt, MSK's VP of talent acquisition, working with the nonprofit Council for Adult and Experiential Learning, identified several potential partners. Marist College in Poughkeepsie, NY, about two hours away by train, was the potential partner school with the greatest flexibility to create a customized program. "Together," Dr. Pessin says, "we came up with a plan that would allow our students the shortest amount of time for retraining, and which in turn would allow us to fill these positions as fast as possible."

The yearlong program, which got underway in 2014, runs from July to July. From July to December the scholars attend lectures at MSK two days a week and participate in study groups on a third day. On alternative days, twice weekly, they travel to Marist College for their student lab experience. From January to February they are in level-two didactic courses, and from March to July they are in clinical rotations.

"Scholars must rotate through all of the general labs. They do blood bank, chemistry, hematology which includes coagulation, urinary analysis and body fluids, and microbiology," Dr. Pessin says. "We also give them extra experiences: phlebotomy, time in our outpatient site, time in our flow cytometry/cell immunology area, and time in cell therapy where we process stem cells for transplants." Molecular pathology is being added to the program.

When the scholars complete the program, they sit for the ASCP BOC exam for the medical laboratory scientist. Successful completion of the exam, along with the degree from Marist College, is recognized by the state, qualifying scholars to apply for the New York State license.

Joann C. Rittersbach, BS, MT(ASCP), educational liaison manager for laboratory medicine at MSK, is confident there is no other program like this in the United States. "And I suspect there is not another program like this outside of the U.S. as well," she says. Rittersbach meets with educators often and says she has yet to come across anyone who has developed a similar program. "There is a lot of interest in it because it's the right thing for the right reasons."

Recruitment for the program started in 2014 on MSK's internet site where information about the program is available. Email, informational sessions, referrals, and posted notices help get the word out. Candidates must be full-time MSK employees in good standing and employed for at least a year by the time they apply for the program, and they must hold a bachelor's degree or higher in a life science or a two-year MLT degree. They have to submit an essay about why they want to work in the lab, be interviewed, and complete prerequisite courses required by Marist College (general biology I and II, general chemistry I and II, introduction to organic chemistry or organic chemistry I and II, microbiology, all with labs; immunology, parasitology, statistics, and a computer class).

Ultimately, Marist College holds the curriculum for the program and grants the degree.

"Many of the people we get are working as research assistants, physician office assistants, or in animal tech jobs," Dr. Pessin says. "Often they hope to get into medical school and then realize it may not work out for them. They want to stay in medicine and want to do something more patient-care-related than what they have been doing."

"We also pay," Dr. Pessin says. "By redirecting part of the tuition reimbursement budget, the HR department covers their salary while they are students in the program throughout the year, the cost of prerequisite courses, the tuition, their books, their train travels to Marist and back, review courses for them, and the cost of their exam. It's a good deal." If participants put in the effort, she says, "they don't take a financial hit doing it." It's an opportunity for MSK employees to change careers at the cancer center's expense. Scholars pay only for the

resulting license, and graduates of the program must commit three years to laboratory medicine once they receive their New York State license and it can be verified by MSK.

Says Rittersbach: "Graduates are technically clinical laboratory technologists, and are considered LT1, our entry-level medical technologist position. Managers with open positions offer interviews to the graduates. The scholars and the managers rank their preferences, and then we do a matching system to find the best fit for both."

Eight scholars have been accepted into the program each year from 2014 to 2019. Thirty have graduated.

Dr. Pessin says the program has been a success by all accounts. "We are very satisfied. The scholars have worked at various parts of the institution; they bring new perspectives from other departments. And they tend to be very motivated. We are at 100 percent exam pass rate, which is terrific, for our first four cohorts." All are still employed at MSK.

The scholars now make up about 12 percent of the laboratory technologist/technician workforce.

"But we've been expanding at a fairly rapid rate, so it is not enough," Dr. Pessin says. "We remain challenged. We always have openings, but I know for a fact that we are doing better at recruitment than most of the other New York City hospitals."

The Laboratory Scholars Program itself is expanding. "For the 2019-2020 cohort," Rittersbach says, "we will expand to 10 scholars in the program, collaborate with pathology, and include a molecular component to meet the pathology experience." Dr. Pessin explains: "Anatomic pathology is completely separate from lab medicine here at MSK. We have been so successful that AP would like us to recruit for them as well and train for molecular technologists."

Dr. Pessin has not overlooked the related challenge of retaining talent. "Something that has been a challenge in most institutions is there are very few places to promote medical technologists. Traditionally we have LT1, 2, and 3 positions. After LT3 you possibly could become a supervisor or a manager. But obviously there are not many supervisors or managers. Furthermore, not every great tech should, or wants to, supervise. So we came up with a lab technologist 4, or LT4, which is the same salary level as a supervisor and allows technologists to be experts in their area or other areas—for example, a quality expert, lab information system expert, or education expert." It has provided opportunities to promote people so they do not feel they have to go to other institutions to advance. "This is a creative way to value people in each of our service areas."

The HR department handles the program's funding matters. "HR is accountable for financials; we are not involved," Dr. Pessin says. "But they have done the numbers and found this is more cost efficient than other forms of recruitment. Based on how much it costs them for the level of recruiting they have to do for us, they felt this was a good investment. And because MSK is traditionally so supportive of advancing its own employees, they felt this was the right thing to do."

Rittersbach adds, "That MSK is financially supporting the Lab Scholars Program—salaries, tuition, expenses—shows a commitment of administration, the lab management team, and technologists who all recognize the value of having highly trained and qualified employees working at the bench."

When TriCore Reference Laboratories experienced a more than 20 percent vacancy rate in histotechnologist positions in its pathology department, it was clear it was time to take action.



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"We just could not find experienced HTs to fill all the positions," says Chris Goodwin, MBA, PA(ASCP), CT(ASCP), anatomic pathology core lab manager. "My director, Eric Carbonneau, and I sat down to do our staffing plan and knew we had to get creative. We came up with the Histology Apprenticeship Program."

They crafted job descriptions, after consulting with their human capital management department, "and set the program up correctly, so we could fulfill the business need for TriCore as well as attract the right candidates for the lab," Goodwin says.

The apprenticeship program was launched in 2017 to recruit candidates for histotechnology training from within and outside TriCore. When the apprentices complete the program and graduate, they are encouraged to apply to TriCore's open HT1 positions and take the ASCP BOC exam.

"In our AP areas we employ many great individuals who have experience in pathology in terms of accessioning, processing, slide distribution, and all the other things that make AP work," Goodwin says. "This program provides them with a defined career path. They can go from a lab assistant to a histotechnologist. In fact, we have been able to recruit great people into our AP lab assistant program, based on our having this apprenticeship program open to them. They see a future."

Laura Enriquez, HT(ASCP), TriCore's technical supervisor of histology, says program participants must have completed 60 semester hours of academic coursework from an accredited college or university, and it has to include 12 hours of biology and chemistry. "All lab assistants with that college coursework can apply for an apprentice position. They will then go through a routine interview process, and we make a selection."

The program begins with basic embedding, which is a four- to six-week process during which participants do little else. At the end of that period they must demonstrate 50 percent productivity, which is 20 blocks per hour, with a variety of tissues. Once they achieve that benchmark, they move on to microtomy for six to eight weeks. "Again, they have a benchmark," Enriquez says, "where they must meet a minimum of 10 blocks per hour of cutting. Once they master that, they spend the next 12 weeks rotating between embedding and cutting. They also learn to cut the recuts, to cut from a special stain, IHCs." At the end of the six-month period, they are encouraged to apply—"I hold my breath and hope they do," Enriquez says—for a full-time HT1 position. "That provides a pay increase for them."

While the program is still in its infancy, "and evolving as we evolve," she says, "we already have one apprentice who became an HT1 in July 2018, two who became HT1s in February, and two more who completed the program in March who also plan to jump into full-time positions."

TriCore had been down seven histotechnologists, but with the recent apprentices added to the mix, it is now short two.

"There is a shortage of histotechnologists across the country, so basically we just had to grow our own," Enriquez says. "The positions wouldn't be filled otherwise. I feel great that we are drawing great people into the field. I am proud of my apprentices; they are all wonderful."

Histotechnologists who are already on staff mentor the apprentices, Goodwin says. "We are taking full advantage of their experience and knowledge. At first there were a few people who were a tad reluctant to step in and help train the apprentices. They may have doubted their teaching ability, but that changed in a hurry," he says. "Once they tried it and got adjusted to the idea, it improved their lives and job satisfaction." Some now enjoy being a mentor. "I don't think there is a single person in our lab who has not helped the apprentices along their journey. The program has increased overall engagement and has been great for morale."

Apprentices receive a salary while they train. At the program's end, they are not constrained in any way, nor must they make a time commitment to the lab.

Because the apprenticeship is open to everyone who meets the educational criteria, many have wanted to take advantage of it. "We post the apprenticeships as positions," Enriquez says. "On my first two postings there were roughly 90 applicants. So while we were having trouble getting histotechnologists, we had no trouble getting apprentices." TriCore's human capital management recruitment team uses social media to spread the word.

Enrollment is on a rolling basis. "Whenever we have good candidates," Goodwin says, "we bring them in, as long as we are ready for them. We don't want too many at any given time because we have to have an experienced HT to provide one-on-one training for each apprentice." After two apprentices complete the program, two more are brought in. "We just want to keep the cycle going—leveraging our knowledge and growing our own."□

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