n an occupation that is increasingly becoming a “buyer’s market,” pathology techniques and practices are changing and evolving with the times.

Always busy and rewarding, a pathologist’s day can consist of multiple tasks, including working with laboratorians, reviewing specimens, completing research or teaching. With a hand in most of the laboratory operations, a pathologist needs to be thoroughly knowledgeable of the diagnostic medicine field.

Pathologists get satisfaction from knowing they are playing a pivotal role in the diagnosis and care of patients. ADVANCE spoke with four pathologists about what it’s like to be working in their shoes.

Jay Schamberg, MD
Pathology was not his first interest in medical school; Jay Schamberg, MD, APCP pathologist and vice president of medical operations for the Metro Region of Aurora Health Care, Milwaukee, originally wanted to go into psychiatry.

“But I found whenever I was on a rotation, I would always go down to see what the lab work or biopsies showed,” Dr. Schamberg said.
Schamberg said. “I realized there was more variety in what you could do in pathology than in psychiatry at the time.”

Dr. Schamberg appreciates that pathology offers many different career paths. A pathologist can sit and read slides all day if he chooses, or he could also take up a subspecialty, run a laboratory or become involved in an organization. Pathologists also have the chance to move up in the hospital’s administration, just like Dr. Schamberg did.

“Pathology has been a career that has challenged me, and keeps me engaged and interested,” he said. “I enjoy being able to solve problems by using organizational resources and working with medical technologists, other pathologists and practicing physicians we provide services to. Being at the nexus of all those groups is exciting.”

Being a pathologist means you have to be up to date on the newest methods and technologies, something Dr. Schamberg said can be a challenge. He sees molecular and genetic testing as the future and knows pathologists need to be ready for this change.

“Pathologists will be able to recognize how to do the tests and come up with reliable information,” he reported. “More and more, lab information is being used to drive decisions as to what is the most effective treatment.”

Because of all these challenges and the different niches pathologists can fill, Dr. Schamberg said it’s a “buyer’s market” in the field right now, and U.S. graduates are in demand. He said there is especially a shortage in certain areas like molecular and cytogenetics.

These new pathologists need to be prepared for a changing profession challenging the traditional concept of a pathologist. Dr. Schamberg told ADVANCE. Pathologists will need to apply molecular tools to biopsies and organs, and will need to work in larger, more collaborative groups. Dr. Schamberg also sees increased communication with other physicians and patients in the future, especially when it comes to communicating what molecular tests mean for treatment purposes. Additionally, Dr. Schamberg mentioned he thinks more pathologists will get into subspecialties.

Of course, new pathologists will need to be knowledgeable about new technologies. Dr. Schamberg said microarrays are enabling pathologists to look at thousands of single nucleotide polymorphisms, and that molecular probes are being applied to anatomic pathology.

Donald Howard, MD, PhD
This pathologist started out as a philosophy major during his undergraduate studies at Boston University. “Philosophy is concerned with asking a lot of questions, but there are not a lot of answers,” said Donald Howard, MD, PhD. “So when I got into medical school, I was looking for a specialty that lets me find final answers, and pathology is that.”

Years later, Dr. Howard founded CellNetix Pathology and Laboratories, Seattle, when three pathology groups merged in 2005. Along with being an active pathologist there, he is the Chairman of the Board. He is also a clinical associate professor of pathology at the University of Washington. Additionally, he has subspecialties in breast pathology, direct immunofluorescence, fine needle aspiration, flow cytometry, immunopathology and transplant pathology (kidney).

Juggling multiple roles is OK with Dr. Howard, who said he likes feeling “responsible” in his job. “I like that the buck stops with my diagnosis and that I have responsibility for everything else happening to patients after rendering a diagnosis,” he said. “We are the unsung heroes of medicine, because most people don’t think about us when they think about patient care.”

He added he has enjoyed his role of half practicing pathologist, half administrator and businessman in the past 3 years since CellNetix was founded.

Dr. Howard emphasized how important subspecialties are now and that future pathologists should consider having at least one when they get out into the field. CellNetix is built around pathologists who all have subspecialties in different areas. He mentioned they just hired 14 new pathologists from a variety of subspecialties.

Dr. Howard sees a “tremendous revolution” for pathology within the next 10 years or so. Most of this will revolve around molecular testing and personalized medicine with targeted therapy, he said. He also thinks information technology will help revolutionize the field, and patients will start getting more involved in their own healthcare.

Additionally, Dr. Howard thinks new pathologists need to consider how involved they’d like to be with the organization they work for. “They need to decide whether they want to be employees or partners,” he explained. “We have a partnership model which is very egalitarian; it’s also an entrepreneurial model.”

William Jacobson, MD
Like Drs. Schamberg and Howard, William Jacobson, MD, staff pathologist, went into pathology after exploring another avenue first. “I got into pathology after considering a career in internal medicine because I wanted a broad range of disease entities to deal with and didn’t particularly like dealing with patients,” said Dr. Jacobson, who works for AmeriPath, Indianapolis. “I also was
attracted to the scientific end of things and thought I would do best working alone.”

One of Dr. Jacobson’s favorite things about his job is influencing other medical professionals.

“The best thing about being a pathologist is one gets to guide other physicians in their work, particularly surgeons,” he said. “Without pathologists, they would not be able to plan a course of treatment for their patients, and would have difficulty staging neoplastic diseases dictating the best course of therapy.”

However, the career does come with some challenges, Dr. Jacobson said. Assessing large and difficult-to-classify tumors and determining if a particular entity is malignant can be hard. Also, pathologists need to keep up with the latest technologies that have been constantly changing over time. “I can assure you, the way pathology is practiced today is different from what I learned as a young resident,” Dr. Jacobson mentioned.

Dr. Jacobson said pathologists are in high demand because every hospital needs at least one to serve as medical director of the laboratory. For hospitals offering surgical services, they are also needed to interpret frozen sections while the patient is undergoing surgery to aid the surgeon in his choice of treatment, to assess the adequacy of the surgery and to ensure the diagnostic material has been sampled.

Different pathologists have different roles, Dr. Jacobson said. For example, some are part of large practices and travel to small hospitals to perform on-site frozen sections. Others work for drug companies to help develop and assess the effects of compounds the company wants to market.

Dr. Jacobson sees many changes in the pathology field in the future. Besides the expansion of the recent development of telepathology, he also sees molecular medicine becoming more important and pathologists becoming experts in molecular and genetic diagnosis of particular diseases. He also thinks a collaboration of pathology and radiology may become more prominent to better assist a surgeon in understanding how to best remove a tumor.

“Additionally, the use of special or immunostains has expanded greatly in the last several years to the point of being routine in most practices,” Dr. Jacobson said. “These staining techniques allow a more specific diagnosis of certain tumors, something that can be extraordinarily helpful in planning treatment and predicting prognosis.”

Kimberly Allison, MD

During medical school, Kimberly Allison, MD, got hooked on pathology during her classes and rotation. “My pathology course preceptor asked us at the end of the semester who was going into pathology. I had never realized it was a specialty, but it planted a seed of interest because I really liked the course,” recalled Dr. Allison, assistant professor and director of breast pathology, University of Washington Medical Center Department of Pathology, Seattle.

“Then, when I was on the wards, I found myself wanting to follow patients’ specimens from the operating room to the pathology lab so I could see with my own eyes what was going on at the cellular level. Once I did a pathology rotation, I never looked back.”

Dr. Allison enjoys how visual pathology is. “There is a unique beauty to the patterns of human disease when seen under the microscope,” she said. “I also enjoy teaching residents and working on translational research.”

She added it is important for pathologists to have good communication with clinical colleagues. “The more clinical information available to us, the better we can address key issues in our reports,” Dr. Allison noted. “Additionally, when you have a good relationship with your clinicians, they will understand our limitations. A biopsy doesn’t always give you all the answers.”

Dr. Allison said recently, the larger salaries for pathologists in private practices have been luring some of the best residents away from an academic career, where they are needed. Like Dr. Howard, she also sees a push for subspecialization, especially in breast/gynecologic, gastrointestinal and dermatopathology. “However, groups are still very interested in having pathologists with solid diagnostic skills in general pathology as well,” Dr. Allison added.

Amanda Koehler (akoehler@advanceweb.com) is assistant editor of ADVANCE.