Leadership

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As leaders of ASCP, we are committed to being your lifelong business partner. Together, our journey through the new diagnostics will be productive, ensuring improvements to our scope of practice. These changes will provide you with a future positioned at the heart within the house of medicine.

In our case, leadership means to believe in and understand the causes for change, to foresee the needs of the Society, and to supply the resolve necessary to do whatever it takes to fulfill our strategic goals. This vigilance requires personal humility and unwavering professional dedication. Sometimes, it also demands the faith to prevail for what’s best for the Society. By combining disciplined actions with momentum, our goals will be achieved—ASCP never settles for second best.

As leaders we pledge that we will always maintain our core values: progressive, sound science (through education, certification, and advocacy); connectivity; concierge customer service; and international outreach. While we commit to protecting and expanding these core values, we are driving progressive changes and making substantive progress.

We anticipate member needs by launching the best educational products, conducting evidence-based research, and prioritizing the needs of the patient first. This translates to providing the right test to the right patient at the right time.

The future of clinical medicine depends upon your vital expertise. I will share one secret with you. For ASCP to be your advocate, our leaders have to be perceptive, adapt to the circumstances, and craft innovative solutions, often on the spot. To accomplish our strategic goals, we are collaborating with organizations that have common goals and can add value for members.

In this issue of Critical Values, ASCP President John E. Tomaszewski, MD, FASCP, focuses on leadership in an effort to move people in the direction of a goal (see page 6), while Arl Van Moore Jr., MD, FACR, discusses leadership as a skill to be taught at universities and through societies such as ASCP (see page 14). For example, Louisiana State University is preparing physicians early in their medical education to order the most appropriate tests for their patients (page 18). In another instance, the ASCP Diplomate in Laboratory Management helped one ASCP member advance his career (page 22).

Reflecting on her career, the Chair of the ASCP Council of Laboratory Professionals acknowledges that her connections made her successful (page 8). While on page 12, the ASCP Resident Council Chair discusses potential dangers of miscommunication among members of the healthcare team.

Enjoy the July issue of Critical Values, and let us know how we can continue to serve as your partner in your professional life. Send an e-mail to me at Blair.Holladay@ascp.org.

My best to each of you.

Dr. Holladay is Executive Vice President of ASCP.
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Message from the President

Leadership has many attributes, and countless books have been written that enumerate the many faces of leadership. Authors in the field of organizational dynamics have constructed a myriad of models for depicting how organizations are structured, and each of these models projects a different view of the typical leader.

In a strongly hierarchical, vertically organized model, leaders are recognized by their span of control and command. There is often only one uniquely identified leader at the top of the steeply sided organizational pyramid. In contrast, in the horizontally organized model, leaders are characterized by their abilities to integrate, coordinate, connect, and enhance. Horizontally organized systems often have leaders organized as a matrix. The pyramids of these organizations are "low profile" but with a broad base.

Leadership is one of those human qualities that is hard to describe but easy to spot. Leaders set a direction, align people, and persuade those people to move in the direction of their goal. In the workplace, leaders cause the organization to work more effectively.

By John E. Tomaszewski, MD, FASCP

Helping Members Navigate Winds of Change

In professional societies, leaders set the stage for members to do the work of crafting their professional identities while at the same time fulfilling their missions. The processes of setting strategic goals, organizing members into working groups focused on achieving those goals, and promoting the good work of the organization are typical activities for society leaders. Both in the workplace and in societies, leaders are recognized and acknowledged.

The Laboratory Team

ASCP has identified itself as a professional society that represents the entire laboratory team working as patient-centered advocates. This concept of better service to patients through a "360-degree" approach to laboratory diagnostics is the core of the ASCP ethos. In the ASCP view of the world, laboratory diagnostics are best only when pathologists, laboratory professionals, medical laboratory scientists, and business managers work as an integrated team.

To make this image a reality requires the leadership to establish a culture of coordinating laboratory work across personnel, organizing laboratory workers into groups who can effectively communicate and interact, and persuading the entire laboratory that moving in the direction of patient-centered advocacy as a unit is the "right thing to do." As President, I believe that ASCP has embraced this leadership challenge of promoting the laboratory team with vigor and full commitment. Currently, the Society has adopted a four-pronged approach to its role as the leading professional society for the laboratory team. The operating characteristics of this approach are (1) patient-centered science, (2) concierge service for members and patients, (3) connectivity, and (4) internationalism.

Winds of Change

Patient-centered science is at the heart of what clinical laboratories do. The science of laboratory practice is changing rapidly. The revolutions in molecular pathology, cellular engineering and therapy, and digital pathology are rapidly changing the scope of practice in pathology and laboratory medicine. It is predicted that as many as 4,000 new tests over the next decade will be added to clinical laboratory test menus based on these technologies. Computational analysis of large data streams will be front and center in the era of
21st-century diagnostics. ASCP seeks to lead the way in helping to identify the most effective utilization of these modern testing methods through robust comparative effectiveness test utilization research, which will be conducted in the Health Services Research arm of the ASCP Institute.

On the front lines, ASCP provides leadership and resources to its members and patients as they grapple with the winds of change in both technology and health economics. The Society is focused on being attentive to its members’ needs to enhance their professional lives. This requires ASCP to lead through providing concierge-level service to both members and patients as they interact with ASCP’s programs.

**Connections at Home and Abroad**

Behind the scenes, ASCP facilitates connections among members, societies of pathology and laboratory medicine, and patients. The Society has pursued a federated approach to connections with other pathology and laboratory medicine societies. Later this year, we will learn more as the Task Force on Connectivity, spearheaded by ASCP President-Elect C. Bruce Alexander, MD, FASCP, completes its work.

Internationally, the Society has played a leadership role via the engagement of the ASCP Global Outreach Institute in the activities sponsored by the President’s Emergency Plan for AIDS Relief. The ASCP training program for laboratory professionals in Africa in human immunodeficiency virus, malaria, and tuberculosis testing has been a tremendous success. In the future, the Society anticipates being active in new global outreach programs in cervical cancer. The ASCP international certification program for laboratory professionals and cytotechnologists is another example of its leadership in international health.

Speaking about leadership, Nelson Mandela said, “It is better to lead from behind and to put others in front, especially when you celebrate victory when nice things occur. You take the front line when there is danger. Then people will appreciate your leadership.”

Because ASCP is a horizontally organized Society, its leadership is structured as a matrix. This means that your recognized leaders come from all facets of ASCP. Look for them to walk with you in different places and at different times as we travel this bumpy road toward the “new diagnostics.” I welcome your comments. You may e-mail me at President@ascp.org.

Dr. Tomaszewski is Professor and Interim Chair of the Department of Pathology and Laboratory Medicine at the University of Pennsylvania, Philadelphia.
It Is All about CONNECTIONS

As I head into the last quarter of my tenure as Chair of the Council of Laboratory Professionals, I realize how lucky I have been in my career. Sure, I work hard and have a burning passion for my profession, but that is not always enough.

Truth is, my career has benefited greatly from connections I have made, networks I have joined, and mentors who have shown me the way. That help was part luck, part reaching out to others to gain knowledge and support, and part hard work to make sure my connections were two-way. I was able to learn and grow considerably by accessing the knowledge and perspectives of others. It is said, “You are what you eat.” The same might be said of a career. The professional connections we make shape us professionally just as the food we eat shapes us physically.

Connectivity

To connect means to join, relate, or link. Connectivity is the state of being connected. To be part of a bigger picture, you need to connect to others who have similar interests or, in this case, who are in the same profession. If you want to expand your knowledge and skills outside your own area of expertise or interest, try connecting with people or...
organizations that can expose you to different ideas, viewpoints, and ways of doing things.

What do you gain when you connect? I believe the benefits are numerous. First, you will probably be exposed to different perspectives that allow you to see things in new and useful ways. Second, you will have the opportunity to acquire new knowledge and skills and to develop new friendships. With new friendships, you gain access to the help and support of a whole new group of people. If, in turn, you can make your knowledge, skills, and experience available to others, you both gain.

How do you connect? In your workplace, volunteer for a project team or become an ASCP local representative. As a local representative, you help yourself while you help others get connected and acquire new skills. For more information on how to join this cadre of dedicated professionals, go to www.ascp.org/LocalReps.

In your own community or region, you can connect by attending professional conferences in your area. Also consider volunteering to serve on one or more organizational committees. To connect nationally, submit your name and experience to a professional society and offer to volunteer your time and talents. Many people get involved in ASCP this way.

Over the years, I have also learned a great deal by responding to surveys. Not only does this connect you to the future of your profession, but responding to the questions can also give you insights into the perspectives and practices of different people, organizations, and professions.

Connecting to people in other professions allows you to grow beyond your current skill set. For example, a laboratory professional
might join Toastmasters International to build speaking and presentation skills or the American Society for Quality to gain knowledge about quality issues that cross industry lines.

Collaboration

Connecting is the first step; collaboration is the second. Collaboration is the act of building alliances—of working and cooperating with others to achieve a common goal. This is probably the best way to build a network of influence and resources. The key here is to work together toward a common goal.

Think of a tug-of-war game in which members of the losing side are pulled into a mudhole. The side with the most people, the greatest desire, and superior strength and skill will win. Team members may not always pull the same way, use the same stance, or have the same skill level, and they may have different reasons for participating or different levels of commitment. Nevertheless, they share the same goal—namely, to avoid getting covered in mud.

Volunteer committees are collaborative groups. Alliances among organizations are also collaborative. The various members of a committee or alliance come together with different agendas, skills, and resources, but it doesn’t matter, because every participant gains from the collective knowledge, resources, and skills of the larger group. The collaboration builds a network of strength and breadth that far exceeds that of any individual member. It also expands their spheres of influence within their own profession and perhaps beyond.

Over the years, I have served on a variety of volunteer committees that have greatly increased my knowledge and skills. I also have developed a network of people I can go to when I need another perspective, some knowledge I lack, or a connection I need but do not have. It has been one of my greatest career assets.

Leadership

To lead is to guide, especially opening the way or by being foremost in skill. To grow as a leader, you must develop an extensive skill set and a broad network of contacts. Through collaboration and connectivity, leaders can expand their spheres of influence and their ability to make a difference. Both individuals and organizations progress as leaders when they connect and collaborate. Certainly, ASCP has greatly expanded its areas of influence through its many collaborative efforts, and that is good for both ASCP and its partners.

Ms. Harris is the recently retired Senior Associate, Biomedical Headquarters, Immunohematology Reference Laboratories, Biomedical Services, at the American Red Cross, Winthrop, Wash., and currently serves as an independent consultant.
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A few months ago, I received a phone call from my Uncle Joe. He was concerned because a "spot" was seen on his pancreas during a CT scan of his abdomen. "What should I do?" he said. "The doctors told me it wasn’t a big deal, but I should get it checked out. I’m really afraid.”

Other than some indigestion following heavy meals, he had no medical issues. So I said it was probably an incidental finding, possibly a benign cyst. Eventually, I convinced him it was nothing to lose sleep over. However, he should get it evaluated. His physician’s diagnostic plan seemed reasonable. I was familiar with the gastroenterologist and knew he was very competent. I also knew and trusted the pathologists who would evaluate the specimen at our laboratory.

The Shocking News

I didn’t think much more about it until I received another call from my uncle and my brother. The doctor saw something concerning during Uncle Joe’s diagnostic procedure but did not know what it was. Worried, I secured Uncle Joe’s permission to view the slides. I also promised to ask the senior pathologists to review them.

Two days later my obviously distraught brother called again. “Uncle Joe went to the doctor today to get his results. He has cancer and it has spread to his liver. The doctor said he has two months if he doesn’t do the radiation and chemotherapy.” I was shocked. How could this be? He was fine—no symptoms, no issues. Things just didn’t add up.

Later that day, a senior pathologist at my hospital came by and said, “I’m so sorry to hear about your uncle.” When I questioned the prognosis, he said the gastroenterologist told him my uncle had carcinomatosis of the abdomen. “It was a neuroendocrine tumor,” he explained. “A really strange presentation, but it doesn’t sound good.”
The Follow-up

My uncle was asymptomatic, so how could he have had this horrible cancer and why only two months? I am not trained in oncology. I have participated in many tumor boards, however, and we are always elated when patients have neuroendocrine tumors of the pancreas. Even poorly differentiated neuroendocrine or small-cell carcinomas have much better prognoses than the more common and aggressive adenocarcinoma of the pancreas.

Immediately I researched the subject. I called a medical oncology colleague, who told me chemotherapy is quite effective even with small-cell carcinoma, and patients usually survive nine months to a year. Everything I read indicated the prognosis should be better. Even patients whose cancer has spread to the liver usually live an average of four years following diagnosis.

I reviewed the slides and showed them around the department. It was a well-differentiated neuroendocrine tumor with no small cell or poorly differentiated features. What gave this banal-looking tumor such an aggressive course—and what about the carcinomatosis?

I decided to talk to Uncle Joe again. He had a copy of the initial CT scan report, so we reviewed it together. "It’s every-where," he said, “even my lungs. It says here there are G-R-A-N-U-L-O-M-A-S in my lungs. That means cancer, right?"

I told him, “No! Granulomas are something lots of people have—including 90 percent of Missourians. It’s not cancer.”

The report also indicated he had three nodules in his liver, one enlarged periportal lymph node, and a 3-cm pancreatic head mass. There was nothing about carcinomatosis or any other suspicious finding. Again, it didn’t add up. I was unsure what was going on, but what the oncologist told him didn’t make sense. Maybe there was some other information I didn’t know about. When Uncle Joe asked me to attend his next doctor’s appointment, I readily agreed.

Relief Tempered by Concern

Needless to say, we went to the appointment filled with angst. Neither of us knew what to expect, but as soon as the doctor entered the room, he indicated there had been a big mistake. The surgeon had told him the tumor was an adenocarcinoma. However, the final pathology report, which he had not seen personally until the previous day, showed only a neuroendocrine tumor, no adenocarcinoma. Also, there was no carcinomatosis.

It was a twisted story, something akin to those telephone tree whispering games we all played as kids. This time, however, it involved information with serious implications. As we were leaving, my cousin confided to me that, after the last doctor’s appointment, she feared her dad might take his own life.

That was when the gravity of it all really struck me. Our family suffered a great deal of unnecessary emotional hardship all because of one honest misunderstanding. Fortunately, my uncle is receiving the correct treatment, and no unnecessary medical procedures were performed. Nevertheless, I feel compelled to share this story with the medical community.

Mistakes happen at good hospitals everywhere, but if they are not recognized in time, patients suffer the consequences. To avoid this, pathologists must take a strong leadership role, especially in situations like this. As leaders, they must also ensure clear communications among all members of the healthcare team and patients. Lives are in the balance. We must never forget how important our diagnoses are, or how essential it is to communicate them clearly.

Dr. Kozel is Resident Physician at University of Missouri Health Care, Columbia, Mo.
Leadership

By Arl Van Moore Jr., MD, FACR

DEEP BENCH
of Physician Leaders Needed
Good leadership connotes different mental images depending on the individual. Frequently a mental image of a famous military figure, political figure, or personality in a religious or social cause first comes to mind. For example, I have indelible images of actors portraying famous people: George C. Scott as General George S. Patton; Russell Crowe as British Navy Captain Jack Aubrey; and Ben Kingsley as Gandhi. Now you may be thinking of your own favorite movie leader portrayal.

Within our profession, each of us can conjure up a mental image of a person that we have known or watched in action. This individual is a good leader whether he or she is a department head, a section head, a medical staff leader, a group leader, or hospital administrator. Although the relatively mundane course of medical leadership isn’t likely to be portrayed in Hollywood, leadership remains a critical element in our continued success as a profession and is crucial for providing the best possible care to our patients.
As the landscape of medicine changes both the practice of medicine and how physicians take care of patients, there are challenges on many fronts. To navigate through these difficult times, physicians need to be represented by strong physician leaders in many venues. One problem is that while physicians are well trained to take care of many patients in highly sophisticated ways, in my opinion the profession does not do a good job—both in medical schools and in residency programs—in training physicians from the ground up for the leadership roles and their challenges. To gain leadership training, a medical student or resident must seek sources outside the medical community to access pathways to learn even the most basic of these skills.

This is a critical juncture in medicine—a deep bench of strong and capable physician leaders is essential to the long-term success of the profession. However, I believe all levels in the profession suffer from a relative paucity of strong, trained, and dedicated leaders. We have become adept at training terrific doctors; the problem is that we don’t do anything to teach those who enter the profession anything about leadership or what good leadership entails. And while it is difficult taking good care of patients day in and day out, being a good physician and a good physician leader is even more difficult.

So if leadership isn’t being taught, are we in essence training a host of individuals to be followers? If someone doesn’t know how to be a good leader, how does he or she learn to be a good follower? Increasingly, medicine is changing and transitioning from independent physician practices to hospital-based practice networks, large multispecialty practices, or large corporate medical practices. For patients and for the profession, physicians need to take an increased role in providing leadership to foster these changes and ensure that patients’ needs come first.

Therefore, if leadership development in the profession does represent a major deficiency, how do we change the way in which leaders are developed? My premedical school experiences may give a somewhat unique insight on what might be done.

**My Experience with the U.S. Navy**

As a college freshman and rising first-year Naval Reserve Officers Training Corps (NROTC) midshipman at the University of Mississippi, I began a nearly 10-year association with the U.S. Navy that included classes, reading, and training and indoctrination in leadership. Leadership training and development began on Day One and continued throughout my tenure. At the time it seemed the logical thing to do. After all, in less than four short years, I was to be commissioned as an ensign in the Navy. I needed to learn a great deal about leadership if I was going to assume some fairly significant leadership responsibility in a branch of the Navy that was yet to be determined.

Being an NROTC midshipman was somewhat different than going through Annapolis as a midshipman. Both institutions had rigorous academics. However, while there was a military tradition in NROTC, the emphasis was not as intense as it was for the midshipmen at Annapolis. Why do I mention the difference? I believe that it is the basis of a concept or focus that can be cross-walked to medicine and the way leadership is taught to physicians.

Throughout my time at the University of Mississippi earning a chemical engineering degree, I spent time each semester, as well as each summer, being taught leadership skills by the Navy. Each ensuing semester and summer built on what I had learned in the past. The doses were small individually, but the cumulative effect over time was considerable. In the end I passed all the basic requirements for being a commissioned officer. That knowledge and those skills have served me well throughout my career in medicine.

**Leadership Training in Medical Schools**

As a profession, I believe we can easily duplicate my experience in being trained as a Navy leader and incorporate it into medical school curriculums and residency education and training programs. Medical schools seem to find time to introduce all manner of training on a wide variety of topics to medical students. I believe that over four years of medical school, enough of a kernel of leadership training—if done appropriately—can be instilled into students and that this durable foundation can be easily built upon in residency programs. All physicians don’t have to be leaders or serve in leadership roles. But if students know what it takes to be a good leader and they choose not to lead, they will be better followers and better facilitators in helping leaders do what is best for patients and the profession.
Similarly, residency programs can, working through the Accreditation Council for Graduate Medical Education, develop a series of leadership training objectives that all programs could uniformly follow. These residency leadership development programs can expand upon the basic curriculum that medical schools provide their students over the course of their respective programs.

If we as a profession determine that it needs to be done, we could make the intrinsic and durable changes in the medical education system that are required. However, these changes matter only if we believe that there is a need to make learning about leadership an important and integral aspect of becoming a physician and in taking care of patients and in nurturing the profession.

If you believe that a leadership deficit exists, then the next question is, how does the medical profession collectively begin the journey and start making the changes needed for success in the future? Who is best suited to do this? It is the direction of our own future that is at stake.

**Professional Societies Must Be Involved**

Medicine is a diverse profession with many members and many specialties. While physicians meet in various forums, none of these represents a concentration of individuals that can initiate an unstoppable chain of events like a nuclear chain reaction. What needs to be done, I believe, is to engage professional societies, such as ASCP and the American Medical Association (AMA), so their leaders and membership become involved and energized to effect a change in how future physicians are trained. The more professional societies that are involved, the more medical school educators and respective residency review committees can be pressed to institute and coordinate an organized leadership training effort.

I would like to take this opportunity to challenge you, the leaders and members of ASCP, as I have challenged the leadership and membership of my own specialty, radiology, to get out in front of this issue and work to effect a change. This needs to be an organic and durable change in the training of the profession’s future leaders. The task will not be easy. But, as President John F. Kennedy said at Rice University when he was introducing the moon mission to the nation, “We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win.”

I believe that we should take on the mission of leadership development as a critical need for the profession and for patients with the same zeal and desire to win. It is important to our survival. Working together, we can accomplish many things and we can change our future, but it is up to us.

Are you ready to effect change?

Dr. Moore is President of Charlotte Radiology in Charlotte, N.C., and past Chairman of the Board for the American College of Radiology.

ASCP Ambassador Lisa Thrasher, MLS(ASCP)CM, p. 16-17, asserts leadership skills in presentations to local schools.
Why Medical Students Should Study Laboratory Medicine

By Fred H. Rodriguez Jr., MD, FASCP
For a patient whose complete blood count is normal and who has no history, signs, or symptoms of chronic blood loss or liver disease, the physician orders serum iron, serum ferritin, total iron binding capacity, and several other iron-related laboratory tests. For another patient with no history, signs, or symptoms of joint pain, rash, or systemic complaints, the physician orders antinuclear antibody, serum compliment, and other autoimmune disease-related laboratory tests. Unfortunately, it is common practice for physicians to order laboratory tests with little or no clinical evidence or justification.

The risk for inappropriate utilization is even greater for the newer, more expensive molecular laboratory tests. Inappropriate clinical laboratory test utilization not only may increase the cost of health care but also does not contribute to enhancing the quality of care or the clinical management of the patient.

To achieve better patient outcomes and to curb costs, it is critical for undergraduate medical education to introduce students to the appropriate utilization of clinical laboratory tests. Pathologists and laboratory professionals can provide the necessary leadership to reduce healthcare costs by preventing overutilization or misutilization of tests.

Currently, the majority of U.S. medical schools do not have a formal introductory course on the principles and practice of laboratory medicine. Moreover, this training in the use and interpretation of clinical laboratory test results is absent in the curriculum of most health professions, including nursing and many allied health occupations.

For more than 40 years, faculty in the Department of Pathology of the Louisiana State University (LSU) School of Medicine in New Orleans has presented an introductory course in laboratory medicine that provides 90 hours of instruction during the second year of medical school.

Understanding Different Laboratory Tests

Given the significant number and diversity of clinical laboratory tests available to healthcare providers, any introductory course on clinical laboratory medicine is challenged in the selection and organization of appropriate content. For the student to gain an understanding of the variety of the most commonly utilized clinical laboratory tests, the course at LSU is divided into modules that reflect the traditional organization of the clinical laboratory: clinical hematology, clinical chemistry, clinical microscopy (including urinalysis), immunohematology (blood banking), and related laboratory medicine topics (e.g., point-of-care testing, laboratory accreditation and regulation, laboratory statistics).

The course at LSU emphasizes the appropriate selection of laboratory tests and the proper interpretation of clinical laboratory test results. The hematology and urinalysis components focus on the identification of morphologic features of various disease conditions and their clinical significance. The course format combines lectures, online tutorials, case review sessions, and self-assessment exercises, which include training medical students to perform an evaluation of a peripheral blood smear and microscopic urinalysis.
Leadership

LSU clinical pathology faculty develops all the content for the course, integrating many clinical examples and case studies. Often, the pathophysiology of abnormal clinical laboratory test results is discussed in relationship to clinical disease, providing medical students with examples of the clinical utility and relevance to the clinical management of patients. Also, this approach integrates basic science physiology, biochemistry, and general pathology to broaden the students’ general understanding of normal health and the alterations caused by disease, enhancing their ability to properly interpret clinical laboratory test results and clarifying the relevance of appropriate clinical laboratory tests to clinical situations.

Most of all, the course helps students identify specific clinical situations in which certain clinical laboratory tests are not appropriate for proper diagnosis and/or patient care. Furthermore, integrating basic science subject material also helps prepare the students for Step 1 of the U. S. Medical Licensing Exam (USMLE). Successful passage of Step 1 of the USMLE is a requirement for advancement to the clinical rotations.

Learning Clinical Justification for Tests

While currently there are no formal objective data on the clinical laboratory test-ordering behavior of LSU students after graduation, informal surveys of students and clinical attending faculty show that these students better understand the important link between clinical justification and the ordering of clinical laboratory tests and the proper use of medical resources.

“The LSU course was a great introduction into understanding why we order tests and when it is appropriate for the patient,” said Alison Heffernan, MD, LSU School of Medicine Class of 2003 and currently a pediatrician at Montgomery Pediatrics, Cincinnati. “I definitely remember the class, and it is still very applicable to my practice today. I frequently order laboratory tests, such as a CBC or urinalysis, which were covered in the introductory course.”

Having just finished his third year of medical school at LSU–New Orleans, Kyle McMullen provides a slightly different perspective. “The clinical pathology course bridges the gap between the acquisition of basic science knowledge and the clinical application of that knowledge,” he said. “I learned the diagnostic algorithms for workup of problems and how to order the appropriate set of tests in a stepwise fashion to avoid unnecessary testing. Finally, I learned how to interpret the tests to narrow down the differential diagnosis. Additionally, the course taught me how the tests were derived, so I had a better concept of why to order specific tests for individual patients.”

“Taking this class before my third-year clinical rotation prepared me to understand the clinical aspects of patient care in the hospital wards. It would have been much harder to have had to learn all this information during my third year.”

Medical literature substantiates that training in laboratory medicine is appropriate and warranted. The student and faculty surveys indicate that the program at the LSU School of Medicine imparts valuable training in laboratory medicine to undergraduate medical students. To leave training in laboratory medicine to observation and mimicry in the clinical years invites the possibility of the propagation of inappropriate and unjustified clinical laboratory testing behaviors.

Correcting poor clinical laboratory test-ordering practices is much more difficult once a physician is in practice than inculcating appropriate behaviors during undergraduate medical education. Education in the appropriate and justified utilization of clinical laboratory tests has the potential to improve healthcare quality and lower healthcare costs.

References


Dr. Rodriguez is the Emma S. Moss Professor of Pathology and Course Director of Clinical Pathology, Department of Pathology at the Louisiana State University School of Medicine, New Orleans.

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The introduction to Laboratory Medicine course taught by the Department of Pathology at the LSU School of Medicine in New Orleans has involved many faculty members over many years. Carolyn Sue Walters; William (Doug) Scheer, PhD; Gary Lipscomb, MD; Art Zieske, MD, FASECP; Grace Athas, PhD; and Ann Fosse are but a few of the many who deserve recognition for their time, efforts, and dedication to the education of hundreds of medical students. Having been the Course Director since 1982, I am personally indebted to them all for their support. I also acknowledge Richard Vander Heide, MD, PhD, Chair, Department of Pathology, LSU School of Medicine, for his support and comments regarding the article.
The American Society for Clinical Pathology has partnered with Capital One® to offer you three credit card options to fit your needs. Choose a card that earns you great rewards, one with a low introductory APR or another to help build your credit. Plus, you can choose an image for your card that highlights your support for ASCP.

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Decisions. Decisions. Decisions. We make decisions every day. Some are easy, others are difficult. But we all stand by our decisions. When working at the bench, we make decisions based on policy and procedure, so the outcome is consistent.

For example, if quality control were out of control for a certain test, the decision is easy. Certainly, no results will be reported for patients when quality control shows the test is not working properly. But what about decisions that have no guidelines or can be influenced by many factors that are out of a laboratory professional’s control?

Making a career decision is like the unknown. You wonder whether the decision you make is the right one. I came to that fork in the road in making my career decision.

I was a good medical technologist (the title back then), but there was something that I thought I needed to do to challenge myself. I had a difficult choice to make, either specializing in transfusion medicine (specialist in blood bank) or taking a less familiar road toward laboratory management. Certainly, one can prepare for a career with a management background, studying for a master’s degree in business administration, master’s degree in public administration, or another management degree. However, many factors prevented me from going that route.

I chose the unknown because I was in a management position already and had some management knowledge, but I would need much more. I took it as a personal challenge to demonstrate my knowledge, understanding, and application of management skills.

My decision and goal was to obtain the Diplomate in Laboratory Management, DLM(ASCP), certification. At the time, I could not attend formal management courses because I had a family and a mortgage and was working full time. I did the next logical thing—self-study. I read any article in journals and magazines on staff development, finance, conflict resolution, and management.

I read each article and stopped short of the conclusion. I would analyze the case and decide what I would have done, and then I compared my conclusion.
with the author’s. While there are many textbooks on management, only a few are specific for laboratory management. Additionally, I followed the recommended reading list for the ASCP DLM.

**DLM(ASCP) Opens New Opportunities**

Studying for and passing the DLM examination showed me that I had a good understanding of management; budget development; regulatory requirements, accreditation, and systems process; and many other facets. Most important, I learned what skills are necessary to be a good manager of people, lead and develop staff to attain their best, build their confidence, and cultivate the culture of teamwork. Of course, these skills are important in any profession and can be applied in other situations, such as dealing with patients, physicians, and internal and external customers.

With these skill sets, it is possible to branch into other areas of health care and business. In my case, I was part of the “right sizing” of laboratories in the 1990s when laboratories streamlined operations with automation and needed fewer managers. As a result, I branched into industry and then later into healthcare quality. While working in industry settings, I applied customer service skills and educational techniques used with patients. For example, I dealt with irate users and purchasers who had

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**Earning the DLM(ASCP)**

More details about the Diplomate in Laboratory Management, DLM(ASCP), are available online. For descriptions of the educational and experience requirements, go to www.ascp.org/certification. ASCP Board of Certification offers a helpful examination content guideline at www.ascp.org/ContentGuidelines and a recommended reading list at www.ascp.org/ReadingLists.

The application fee to take the examination for the DLM(ASCP) is $375.
issues with an instrument by using communication skills to address their concerns, to minimize their frustration, and to resolve the issue.

Within the healthcare quality environment, I was part of a team responsible for monitoring, tracking, and improving services in the hospital. Again the skill and knowledge of being an DLM(ASCP) allowed me to influence and affect the services that the hospital provided. Through honing my leadership and communication skills, I could work with a team to improve care. As a good leader, I could take charge when necessary and make the difficult decisions that are best for the organization.

Many situations require understanding the financial aspects of operating a laboratory. Knowledge of cost analysis, return on investment (ROI), and billing resolution are just some of the facets that can be applied anywhere. Understanding ROI is useful when analyzing an individual’s investments such as a 401(k) or evaluating the stock market.

**DLM(ASCP) Develops Leadership**

The DLM(ASCP) certification gave me more knowledge and confidence as a leader. Again, these skills can be applied elsewhere, not only in the laboratory. I know other DLMs who branched out of the laboratory into healthcare quality work, sales, and industry. The diplomate opens many doors.

Much of the direction derives from personal interest and the circumstances of the job market, as well as the personal drive to succeed. The knowledge gained working toward the DLM(ASCP) provides a good start that can lead to unknown opportunities.

Aside from the personal experience, as I review my career, the opportunities available to me, and the risks I have taken, I have to say that the DLM(ASCP) gave me the confidence to pursue a career in management.

While I have changed jobs a few times more than I would have wanted, I have been successful in every one of them. Some of my job changes occurred because of changes in the industry or the economy; others were for better opportunities. Having acquired leadership skills and confidence, I can honestly say that I have had a positive impact on every position I held. I am confident I made the right decision to leap into the unknown.

Mr. Lee is Area Laboratory Manager at Kaiser Permanente Medical Center, West Los Angeles, in Los Angeles.
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Robert H. Riddell, MD, FRCPATH, FASCP

**New Faculty**
Stuart Schnitt, MD, FASCP

**Register at:** www.ascp.org/pathmeetings
How can pathology and laboratory medicine stay relevant in an evolving healthcare environment? Can the current challenges become opportunities for the field? What role can today’s pathologists and laboratory professionals play in transforming the field for the future? As the panel considered these questions and offered specific recommendations, leadership emerged as the key element necessary to enable the establishment of a new paradigm of practice, one that will ensure that pathology and laboratory medicine does remain relevant in the practice of medicine.

The field is in dire need of strong leadership both on the national stage as well as within the halls of our community hospitals. True change for this field will require strong leadership on many fronts. However, building a cadre of leaders means establishing an effective way to identify and train those potential leaders.

Current educational programs fail to offer adequate, or in many circumstances any, leadership training. Most residency programs in pathology provide inadequate preparation on any topics outside medical education, leaving residents ill-prepared to function as administrators, which is a role that many find themselves in very quickly upon completion of their training. Bolstering clinical education with exposure to basic management issues such as hiring and firing, managing a budget, reimbursement, and working with hospital administrators would better prepare residents and laboratory professionals alike to assume supervisory roles. Equally important is the development of a corps of advocates who are well-versed in the current issues of the profession and the field, to serve as subject matter experts to other medical and healthcare organizations, state and federal agencies, and legislators. Identifying and developing future leaders was considered by the panel to be the most important and most immediate course of action necessary to exact the needed change for the profession to thrive.

With the establishment of a more proactive leadership, huge opportunities exist for pathologists to expand their influence over patient care. In the newly emerging patient-centric environment, the testing cycle now starts when a patient presents to their provider and...
ends with clinical action or self-care based on the test results. This is where the “value proposition” that pathology and laboratory medicine have to offer also begins, by serving as the resource on test appropriateness and result interpretation for individual patients, and in a broader context via clinical decision support systems that rely on laboratory data.

Tremendous opportunities also exist for pathologists and laboratory professionals to play crucial and dramatically increased roles in ensuring patient safety and protecting public health. These include employing laboratory information systems to ensure that abnormal tests are accompanied by appropriate patient follow-up, developing clinical guidelines, as well as participating in disease surveillance and clinical trials, particularly Phase IV or post marketing surveillance trials that are often largely or solely dependent on laboratory data. Consumer self-testing, likely to expand dramatically in the absence of prohibitive regulations, is another area in which pathologists should exert a thoughtful approach to establishing a protocol that permits access while ensuring quality and patient safety.

Beyond patient care, pathology and laboratory medicine practitioners have demonstrated true leadership in the application of LEAN management and other efficiency techniques to drive cost savings.

This experience is highly valuable throughout the healthcare system, as all areas strive to reduce spending without compromising quality. Parallel to this is pathology’s leadership role in quality control and quality assurance—areas that are equally needed in other aspects of healthcare delivery.

Because healthcare delivery models are evolving and patient-centered care an emerging focus, efficient and effective utilization of laboratory services will require engagement, communication, education, consultation, user-friendly reporting, outcome measurement and management, and health information technology.

Pathology and laboratory medicine possess all of the tools; they simply require proactive deployment.

Finally, our panelists—acknowledging the existence of numerous organizations representing the fields of pathology and laboratory medicine, each with a different focus and mission—agreed on the importance of all organizations working together to have one voice to move the profession forward.

Next Steps

ASCP is committed to serving the needs of patients as the practice of health care evolves. Through continual and proactive consideration of the developments and trends that are driving change, ASCP will engage in the following activities to:

- Ensure representation of pathology and laboratory medicine proactively at tables where we have expertise (in the use of patient-centered health care that emphasizes quality; in the use of health information technology and electronic health records; in the implementation of health reforms that champion cost containment and minimize overutilization; and in the practice of personalized medicine driven by molecular diagnostics).
- Develop a cadre of science policy leaders in pathology and laboratory medicine and seek opportunities to affect policies that will improve health care and advance the profession through collaborative efforts with other medical specialty societies, government agencies, and industry.
- Incorporate future-based products and information into educational programming via multiple platforms (Web, conferences, publications, and so on) that will enable pathologists and laboratory professionals to be at the forefront of health care.
- Maintain a watchful eye on emerging technologies to ensure the safety of patients while encouraging innovation.
- Seek opportunities to implement comparative effectiveness demonstration projects that identify best practices that improve patient outcomes.

“As we make decisions on where we invest our money over these next five years, which will be critical to the following decade or two, where is the leadership that speaks to what it is that pathology and laboratory medicine has to offer beyond being a commodity? How do you exert your leadership at the table with people like me, because I will tell you quite frankly, we are looking for it.”

John H. Spearman, MBA
Senior Vice President, External Affairs, University of Maryland Medical Center, Baltimore

“There is a paucity of leadership. The real problem is that a lot of people don’t think of pathology as part of the decision-making team and don’t make an effort to invite pathology ... it will take leadership qualities to reverse that process.”

Mark Sobel, MD, FASCP
Executive Officer, Association for Molecular Pathology
“My involvement in pathology organizations complements my day job, and I’ve gained different experiences.”
C. Bruce Alexander:  
Teaching Great Leadership in Pathology through Experience and Example  

After extensive education and training as both a clinician and pathologist, C. Bruce Alexander, MD, FASCP, has spent the past 21 years spearheading the pathology residency program at the University of Alabama at Birmingham (UAB) Health System. He considers himself “an environmentalist” who sets the environment for residents, enabling them to make a successful transition from medical school students to pathologists.

“Dr. Alexander loves pathology and makes it exciting for residents,” said Amanda Crowe, MD, Chief Resident at the UAB Health System. “He has an exceptional ability to communicate with us and shows us how to communicate well with each other and other clinicians.”

Through the years, Dr. Alexander has earned a reputation beyond his institution as an educator, mentor, and a leader in pathology through his active participation in societies such as ASCP, where he serves as President-Elect. In recognition of his outstanding contributions as a nationally recognized educator, the Association of Pathology Chairs (APC) will present Dr. Alexander with the 2011 Distinguished Teaching Award in Graduate Medical Education on July 13 at the 2011 APC Annual Meeting, Monterey, Calif.

“Bruce is a credit to our profession—an outstanding teacher, mentor, and role model,” said Peter E. Jensen, MD, FASCP, APC President, Associated Regional and University Pathologists (ARUP) Professor, and Chair, Department of Pathology, University of Utah, Salt Lake City. “He is a national resource in the field of pathology. Without Bruce’s contributions, PRODS [Program Directors Section of APC] would not be the same organization. Those of us who know Bruce personally think the world of him.”

The Pathologist as a Young Man

Dr. Alexander took time to experiment as a clinician and pathologist before he came to UAB in 1979. During these formative years, he served as a general medical officer in the U.S. Navy for the Marine Corps, gaining extensive clinical experience with acute care patients.
“Having a clinical background for pathology is extremely useful,” said Dr. Alexander of his military physician experience on Parris Island, S.C., from 1973 to 1975. “I look at pathology as a diagnostic service, and my experience allows me to fully understand the clinical context.”

During his military service, Dr. Alexander learned what makes systems function well or not function at all. He witnessed how great leaders develop cultures conducive to learning, like General Robert H. Barrow, who later became Chairman of the Joint Chiefs of Staff.

Dr. Alexander used what he learned to structure the successful residents program at UAB. Additionally, he draws from his own experiences as a medical student, resident, and fellow to relate to pathology residents at UAB.

A long list of mentors shaped Dr. Alexander’s view of the medical and pathology professions. In addition to General Barrow, his mentors include Eugene A. Foster, MD, at University of Virginia, Charlottesville, Va.; Charles H. Rammelkamp Jr., MD, at Case Western Reserve, Cleveland; Edward H. Bossen, MD, his program director at Duke University Durham, N.C.; and William H. Hartmann, MD, at the Accreditation Council for Graduate Medical Education (ACGME).

“I didn’t appear out of a vacuum,” Dr. Alexander said. “My mentors were all lifelong learners. Whatever I do correctly, they are responsible.”

**Ability to Change Lives**

As UAB Program Director, Dr. Alexander facilitates residents developing into good pathologists. His style is to help the residents learn by doing the work themselves, but he is there to assist if you need him, according to Emily Gorman, MD, third-year resident at UAB.

She has even more reason to be grateful to Dr. Alexander. Originally a neurosurgery resident, Dr. Gorman realized during her first year that she missed thinking critically about basic science and its application to clinical medicine. She sought Dr. Alexander’s help in determining whether pathology was the right choice for her medical career.

“He was willing to take a chance on me,” said Dr. Gorman, who will be Chief Resident from 2011 to 2012 at UAB. “He made it possible for me to switch my residency to pathology and has profoundly changed my life for the better.”

**The Big Picture in Pathology**

The academic community offers one perspective of the pathology profession. However, Dr. Alexander believes he gained a broader understanding of the pathology profession through organizations—ACSCP, College of American Pathologists, United States and Canadian Academy of Pathology, Academy of Clinical Laboratory Physicians and Scientists, and American Pathology Foundation. He strongly encourages UAB residents to join these organizations to broaden their view of the pathology profession and learn leadership skills.

“My involvement in pathology organizations complements my day job, and I’ve gained different experiences,” Dr. Alexander explained. “ACSCP is teaching me so much about leadership. I like the Society’s emphasis on learning and advocacy for patients and the entire laboratory team. Also, the three-year leadership rotation [one-year terms for Vice President, President-Elect, and President] at ASCP is one of its strengths and very helpful to giving leaders time to grow into the job of President.”

C. Bruce Alexander, MD, FASCP

**Recognition for Lifelong Achievement**

Modest about his leadership, Dr. Alexander was surprised to receive the 2003 ACGME Parker Palmer Courage to Teach Award and, more recently, the 2011 Distinguished Teaching Award in Graduate Medical Education from APC.

“There’s so much wonderful talent in the pathology program director community,” he said. “I am quite flattered to receive these awards.”

Leading up to the formal ceremony later this month, Dr. Alexander pursues his multi-tiered career as a pathologist, pathology educator, forensic pathologist (for more than 30 years he’s been an associate coroner/medical examiner for Jefferson County, Ala.), and leader for pathologists nationwide.

“On our good days, we [pathologists] bring precision and accuracy to the practice of medicine,” he said. “I like the precision and accuracy of pathology.”

By Sara S. Patterson, MSJ, Communications Writer for ASCP
A “molecular disease model” developed for melanoma enables pathologists, clinicians, and patients to share crucial information. Their collaboration provides the impetus to improve patient outcomes. The innovation of the molecular disease model lies in classifying the later stages of melanoma into expert-curated and peer-reviewed molecular subtypes instead of the traditional histological or cellular subtypes. The online targeted therapy finder (http://therapy.collabrx.com) is intended to enable doctors and their patients to identify diagnostic tests, treatments, and clinical trials associated with unique molecular profiles of patients’ tumors.

Available from CollabRx, an organization that leverages information to personalize cancer treatments and accelerate research, the molecular disease model, based on open-source science, changes in real time as the state of science and medicine changes. More succinctly, it serves as a user interface to the molecular disease model on which it is based.

“This targeted therapy finder is a living algorithm that is updated as science changes, new diagnostic tests are developed, and breakthroughs are discovered through clinical trials,” said George Lundberg, MD, MASC, Editor-in-Chief of Cancer Commons, the creative force leading the design of current and future CollabRx online applications. Dr. Lundberg is also Editor-at-Large for MedPage Today and 1989–90 ASCP President. “CollabRx brings our collective knowledge to practical life in understandable language for a range of users—from pathologists to oncologists to patients. The online application facilitates melanoma patients taking charge of their own health, and clinical physicians and pathologists sharing relevant information with one another.”

As pathologists and laboratory professionals know, individual forms of cancer have great specificity and are tough to group with other cancers. CollabRx creates a whole new way of looking at cancer through a genomic lens.

“Genomic approaches to cancer, plus advances in technology, form an irresistible revolution,” Dr. Lundberg said. “The entire laboratory team—from pathologists to medical laboratory scientists—is absolutely vital to making sense of mutations and genomics. They can provide the leadership to translate knowledge gained from tests into the best treatments for patients.”

Cancer Commons, a nonprofit, open-science initiative for personalized oncology, is creating a network of rapid learning communities in which physicians, scientists, and patients collaborate to provide each patient with the best possible outcome by personalizing therapy based on the cancer tumor’s genomic subtype. CollabRx delivers this information and current expert-based therapy recommendations to individual patients and physicians based on their input of minimal information about the tumor.

“One patient, one physician, one moment, one decision: let it be a shared decision that’s based on the best evidence available and with consideration for cost,” Dr. Lundberg said. “That’s how laboratory medicine should be practiced.”

The targeted therapy finder, melanoma, is the forerunner for similar online targeted therapy applications for several cancer types to be released over the next year, according to Gavin Gordon, PhD, Vice President, Business Development, for CollabRx.

“At the high level, CollabRx provides the IT framework to enable medical experts to identify and discuss the genomic subtypes of a disease such as melanoma,” Dr. Gordon said. “Previously, there was not a forum for expert-based consensus on how to treat cancer patients who have exhausted the standard of care. This becomes more critical as targeted therapies are developed that are personalized to specific genetic profiles.”

To learn more or to join Cancer Commons as an expert, go to http://cancercommons.org.—By Sara S. Patterson, MSJ
President Bill Clinton to Keynote 2011 ASCP Annual Meeting

President Bill Clinton, the Founder of the William J. Clinton Foundation and the 42nd President of the United States, will be the keynote speaker at the 2011 American Society for Clinical Pathology (ASCP) Annual Meeting on Wednesday, Oct. 19, in Las Vegas.

His address, “Embracing Our Common Humanity,” will set the stage for a truly international conference, which is serving as host to the World Association of Pathology and Laboratory Medicine (WASPaLM) XXVI World Congress. “A Global View of Pathology and Laboratory Medicine” is the theme of ASCP’s signature event, Oct. 19-22 at the Venetian-Palazzo Resort Hotel Casinos.

“President Clinton is the world’s leading advocate for global health initiatives, and ASCP has a corps of dedicated volunteers working to improve laboratory services in resource-limited countries,” said ASCP President John E. Tomaszewski, MD, FASCP.

After his two terms as U.S. President from 1993 to 2001, President Clinton established the William J. Clinton Foundation to strengthen the capacity of people around the world to meet the challenges of global interdependence. The Clinton Health Access Initiative (CHAI), formerly the Clinton HIV/AIDS Initiative, works to strengthen integrated health systems in the developing world and expand access to care and treatment for HIV/AIDS, malaria, and tuberculosis. ASCP’s Institute for Global Outreach works to improve global health by identifying and implementing innovative methods and partnerships that improve laboratory practice.

ASCP Executive Vice President E. Blair Holladay, PhD, SCT(ASCP)?, said ASCP and WASPaLM are partnering this year to build stronger bridges between national and international societies for all members of the laboratory team. WASPaLM represents 45 societies of pathologists and laboratory professionals in 34 countries.

For registration information, visit www.ascp.org/2011annualmeeting.

Diverse Siemens–ASCP Scholarship Recipients Share Passion for Science

As a Tibetan who immigrated to the United States from India, Tenzin Lhakhang remains conscious of his heritage while embracing the superior education available here. Receiving a Siemens–ASCP Student Scholarship helped him set an example for the Tibetan community in Burlington, Vt.

As the daughter of a medical laboratory scientist (MLS), Carolyn James connects to her community in rural Montana by delivering aid to those in need of medical care; she serves as a volunteer emergency medical technician and a medical laboratory scientist trainee. The Siemens–ASCP Legacy Student Scholarship made it possible for her to fund her last semester at Providence Sacred Heart School of Medical Technology, Spokane, Wash., and put a little extra toward her job search expenses.

Mr. Lhakhang and Ms. James share a passion for science, technology, and medicine. “I love to understand how things work from the inside out,” said Mr. Lhakhang, an MLS student at the University of Vermont, Burlington. “The Siemens–ASCP Student Scholarship motivates me to attain higher levels of academic achievement.”

For the 2010–2011 program, Siemens Healthcare Diagnostics, in partnership with ASCP, awarded $178,500 to 171 undergraduate and graduate medical laboratory students in amounts ranging from $500 to $2,000. This year, ASCP received 451 applications, nearly double the number of applications of 252 last year. The Society’s annual scholarship program is part of its continuing effort to help defray education costs, promote medical laboratory science as a rewarding career, and address the laboratory workforce shortage.

For Ms. James, her mother motivated her to become an MLS because she was so excited about what she was learning in the classroom and then in the laboratory. “We have similar interests and passions like science and learning,” Ms. James said. They also share unusual hobbies, including belonging to the Society for Creative Anachronism, a group dedicated to reviving medieval activities, such as sword fighting, and fictional story writing.

Siemens and ASCP began the Siemens–ASCP Students Scholarship Program to encourage well-rounded students like Mr. Lhakhang and Ms. James to pursue medical laboratory careers. Scholarships are awarded on the basis of academic achievement, professional goals, and leadership abilities. To be considered for scholarships for the 2011–2012 academic year, students can apply between August and Nov. 15, 2011. For more information, go to www.ascp.org/scholarships.
MSNBC.COM on May 2, 2011, called on ASCP President John E. Tomaszewski, MD, FASCP, to discuss the process of DNA analysis in the wake of the killing of Osama bin Laden. Dr. Tomaszewski commented on the process of matching DNA samples between relatives to identify a body: "In the case of some of those who died on 9/11, family members were asked to supply hair samples from brushes of their loved ones. If this is how bin Laden has been identified, it's a very ironic twist." www.ascp.org/News2011

ASCP Survey Shows Americans Want Lab Test Results Fast

When a doctor orders laboratory tests for a serious illness, most Americans want results fast. But that may not be possible for several reasons, including the time required to ensure accuracy and the shortage of laboratory professionals. A survey conducted by ASCP found two-thirds of patients expect results within a day when the test involves a serious illness—such as a cancer biopsy or liver disease. And even when the results are routine, such as a check of cholesterol levels, more than 40 percent expect them that quickly. The Saturday Evening Post, the oldest American magazine, on April 29, 2011, featured the survey findings. ASCP Communications Chair Dave Glenn, MASCP, MLS(ASCP)CM, is quoted in the story explaining details of specific tests and why some take longer than others. Glenn also was interviewed by Wall Street Journal Radio for a story that aired in mid-May. Visit www.ascp.org/ConsumerSurvey and www.ascp.org/News2011.

ASCP Leaders Discuss Workforce Shortage in San Francisco Business Magazine

"Crisis: You (or your child, or someone you love) are stretched out on a gurney, awaiting lab results that will determine the diagnosis and set the course of life-saving action. As your diagnosis—and your life—hangs in the balance, your urgently needed laboratory results may be held up because of a workforce shortage that’s been building over the last 10 years. This raises the question: In these days of high unemployment and with ‘job creation’ the clarion cry of practically every political campaign, how can laboratories, now or in the future, basic as they are to accurate medical diagnoses, be understaffed?" Northbay Biz drew on numerous ASCP experts to publish this in-depth analysis of the laboratory workforce shortage in its March 2011 issue. For the full story, visit www.ascp.org/Workforce#Biz.

ASCP, College of American Pathologists Celebrate Your Contributions to Patient Care

As proud sponsors of National Medical Laboratory Professionals Week (Lab Week), ASCP and the College of American Pathologists (CAP) honored laboratory professionals for their dedication and contributions to improving patient care. A letter sent to ASCP and CAP members during Lab Week, April 24–30, 2011, said, "You provide the expertise needed to accurately diagnose and care for patients, as well as monitor chronic health conditions." www.ascp.org/ASCP-CAPLabWeek

Wage Survey Finds Certified Medical Laboratory Professionals Earn More

Medical laboratory professionals can raise their income by up to 14.7 percent if they become certified, according to the "ASCP 2010 Wage Survey of U.S. Clinical Laboratories." Published in the March 2011 issue of LabMedicine, the survey provides current wage data for U.S.-based laboratory scientists. The survey highlights pay levels broken down by title, geography, certification, and other variables using results of an online survey that requested data from more than 10,000 laboratory managers, directors, and supervisors across the United States. Read the entire Wage Survey results at www.ascp.org/Wage2010.
ASCP Vacancy Survey Reveals Pay, Education, and Retirement as Staffing Challenges

According to the “ASCP 2011 Vacancy Survey of U.S. Clinical Laboratories,” blood banking and transfusion medicine laboratories are experiencing the highest overall vacancy rate, at more than 11 percent. Histology departments also struggle with staffing, with a reported vacancy rate of almost 10 percent. Published in the April 2011 issue of LabMedicine, the study estimated the rate of shortage for individual laboratory departments. Responses were received from more than 1,719 laboratory staff and supervisors. Read the entire Vacancy Survey at www.ascp.org/Vacancy2011.

ASCP Leader to Receive Highest Scientific Honor from Cervical Pathology Society

Renowned pathologist in cervical cancer and ASCP Immediate Past President Mark H. Stoler, MD, FASCP, will receive the Distinguished Scientific Achievement Award from the American Society for Colposcopy and Cervical Pathology (ASCCP) at the 2012 ASCP Biennial Meeting in San Francisco, March 15–17, 2012. This award is the highest honor ASCP presents for exemplary lifetime achievement in research or a singular scientific breakthrough in the discipline of colposcopy or the field of lower genital tract disease. www.ascp.org/StolerASCCP

African Society for Laboratory Medicine Launches In Ethiopia

A three-day stakeholders’ meeting convened in Addis Ababa, Ethiopia, on March 16 to launch the African Society for Laboratory Medicine (ASLM). The Society aims to advance the laboratory profession and networks in Africa, advocate for the critical role and needs of laboratory medicine, and develop institutional capacity critical for strengthening and sustaining health systems. “It’s basically an independent, not-for-profit entity that is organized on the continent of Africa to focus on the growing demand for truly high-quality medical and research laboratories throughout Africa,” says E. Blair Holladay, PhD, SCT(ASCP)CM, ASCP Executive Vice-President. Listen to his entire interview with the Voice of America at www.ascp.org/VOA-ASLM. Read more about the ASLM and watch the launch video at www.ascp.org/ASLM.

ASCP Awards a Total of $22,000 in Subspecialty Grants

Every year, ASCP sponsors a grant program encouraging students to travel outside their own institution to study with experts in different fields of anatomic and clinical pathology. During 2010–2011, ASCP awarded a total of $22,000 in two rounds of subspecialty grants. Read more about the subspecialty grant recipients at www.ascp.org/Subspecialty2011.

ASCP–ASCLS Japan Relief Fund

ASCP and the American Society for Clinical Laboratory Science partnered to create the ASCP–ASCLS Japan Relief fund to provide resources for those schools most affected by the earthquake and tsunami. As of April 29, the effort had raised more than $8,000. www.ascp.org/Japan

New Twitter Feed about Job Openings

ASCP has launched a Twitter feed with up-to-the-minute notices of new job postings. Follow ASCP’s new jobs Twitter feed at http://twitter.com/ASCPJobs.

ASCP PRISE: Breakthrough Educational Tool

The ASCP PRISE is the practice examination for Resident In-Service Examination (RISE). While RISE helps residents to assess and track their medical knowledge, PRISE is a new online, modular, personal self-assessment, and comprehensive educational tool specifically designed for pathologists and residents. Each of the 24 PRISE modules consists of 25 multiple-choice questions, which are case-based and offer educational feedback and references. “PRISE is unique because our goal is to develop exams that can be taken online at the convenience of pathologists, allowing them to test their knowledge quickly and easily, to identify knowledge gaps, and to gain references for study, as well as obtaining credit for self-assessment modules and continuing medical education,” said Melissa P. Upton, MD, FASCP, Director of Gastrointestinal and Liver Pathology Fellowship of the University of Washington, Seattle, and PRISE Committee member. www.ascp.org/introPrise

LabMedicine CaseSet Book

ASCP’s new 694-page ASCP CASESET: Laboratory Medicine is a rich source of practical cases with significant teaching value. Cases are chosen by leading authorities in the major subspecialties of clinical pathology—the editors of LabMedicine, a peer-reviewed journal published by ASCP. Editors Monte S. Willis, MD, PhD, DABP, FASCP, FCAP, and Frank H. Wians, Jr., PhD, MT(ASCP), DABCC, FACBS, have assembled a wide range of cases covering rare, common, and unusual conditions in chemistry, urinalysis, transfusion medicine, microbiology, hematology, coagulation, and immunology. Each subspecialty section includes an overview written by an expert in the field, providing useful, integrating information about the cases. www.ascp.org/CASESET
Plenary Sessions from the 2010 ASCP Annual Meeting Available on Video


Advocacy News

ASCP Meets with House Majority Leader, Senior Leadership on SGR Fix

ASCP, American Medical Association, College of American Pathologists, and other physician groups met in March with House Majority Leader Eric Cantor's office (R-Va.) to discuss fixing the sustainable growth rate formula (SGR), which has proposed massive cuts in the physician fee schedule (PFS). www.ascp.org/ePolicy4-11

CMS Releases Proposed Rules on Accountable Care Organizations

The Centers for Medicare & Medicaid Services (CMS) has proposed new rules under the Affordable Care Act to help doctors, hospitals, and other healthcare providers better coordinate care for Medicare patients through accountable care organizations (ACOs). ASCP has been active in the formation of the proposed regulations governing ACOs. In a Dec. 2, 2010, letter to Donald Berwick, MD, Director of CMS, ASCP President John E. Tomaszewski, MD, FASCP, noted that pathologists and laboratory professionals are in a unique position and can help ACOs provide better patient care and control costs when they are included in the organizational structure of an ACO. www.ascp.org/ePolicy4-11

CMS Physician Signature Requirement Withdrawal Hits a Snag

ASCP has learned that CMS has been having difficulty rescinding the rule requiring physician signatures on laboratory requisitions reimbursed under the clinical laboratory fee schedule. CMS had already delayed enforcement of the rule from Jan. 1 to April 1, 2011, expecting that it would be able to rescind the rule by then. However, in order to formally rescind the rule, the agency will have to go through the regular administrative process and issue a notice or rule with request for comment. As a result, the process of rescinding the rule may not conclude until the end of 2011. www.ascp.org/ePolicy4-11

your LETTERS

Laboratory Professional Calls for Patient Education in Layman’s Language

I read with much interest the April issue (Vol. 4, Issue 2) of Critical Values. Of special interest to me is the article, “Data Management and the Laboratory Professional” (pp. 8–10) by Teresa Y. Harris, MT(ASCP)SBBtrim, CQIA, CQA(ASQ), on the assessment of new tests and their relevance in becoming routine tests. This article in particular alluded to patients gaining knowledge, which I believe could be a prominent factor for better health and eventually lower healthcare costs.

In the research for my dissertation, I studied orthopedic surgery and total knee replacement and found a statistically significant better outcome at two months for patients returning to normal activity when they were given only one hour of presurgery education on how to prepare for their surgery and self-manage their post-surgery. I believe the provision of information and education in laymen’s language for laboratory tests—especially new tests—and their relevance in diagnosis and self-care also has a potential for ASCP to provide value for patients as they learn to take charge of their health and to achieve better health.

Although reference laboratories provide test guides, these are not user-friendly for patients. Online resources are both inaccurate and vague. Particularly through esoteric tests and molecular biology, an important service could be offered.

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Critical Values Meets Needs of Pathology Community

I am a clinical fellow in training with Anil V. Parwani, MD, PhD, FASCP, and Liron Pantanowitz, MD, FASCP, at the University of Pittsburgh Medical Center. I am writing to congratulate you on your efforts on the latest edition of Critical Values (April 2011); it is a very well-composed publication in line with the needs of the pathology community.

Gaurav Sharma, MD
Pittsburgh
Visually and Scientifically Interpreting Our Brains

Stunning images of the brain reflect its ongoing mysteries for scientists. Author Carl Schoonover combines compelling images of explorations of the brain with thought-provoking captions and essays by leading scientists in the book *Portraits of the Mind: Visualizing the Brain from Antiquity to the 21st Century*.

The images alone in *Portraits of the Mind* show how far scientists have advanced in their understanding of the brain. From ancient sketches that imagine the heart to be the center of a human being’s thoughts to today’s brain scans and genetic markers inside the brain, the process reveals more revolutionary than evolutionary discoveries. In fact, scientists are beginning to understand how thinking occurs at the most basic level, according to science writer Jonah Lehrer in the book’s foreword.
The three images on pages 5, 36, 37, and 38: Portraits of the Mind: Visualizing the Brain from Antiquity to the 21st Century by Carl Schoonover, published by Abrams

Pages 5, 36, and 37: Photomicrograph of a mouse hippocampus, an area of the brain critical for learning and memory, image by Tamily Weissman, Jeff Lichtman, and Joshua Sanes (2005)

Inset image on p. 37, courtesy of Thomas Deerinck and Mark Ellisman

Image on p. 38 by Camillo Golgi (1875), courtesy of Dr. Paolo Mazarello, University of Pavia—Department of Experimental Medicine—Section of General Pathology
The past 20 years have seen spectacular advances through new forms of imagery like diffusion MRI (magnetic resonance imaging),” explained Mr. Schoonover, a fourth-year doctoral candidate in neuroscience at Columbia University, New York City. “The next few years will likely witness many changes in our knowledge about how the brain functions through a great proliferation of techniques in the field.”

Some of the new techniques in this century could be compared to the seminal discovery of visualizing neurons by Italian physician and scientist Camillo Golgi in the late 19th century. Dr. Golgi’s breakthrough technique was employed with virtuosity by the Spanish neuroanatomist Dr. Santiago Ramon y Cajal, whose studies laid the foundation of modern neuroscience, according to Mr. Schoonover. (See image above.)

He found working on Portraits of the Mind to be a phenomenal learning experience about history and scientific discoveries through the ages. “I could not take a class covering 2,000 years of scientific history,” Mr. Schoonover said.

Science Takes Center Stage
Several moments in history stand out for Mr. Schoonover, such as the 16th century when scientists, artists, and sculptors scoured the cemeteries to dissect bodies to learn about human anatomy. In defiance of the Catholic Church, dissections were held in amphitheater spaces for the public to watch like a symphony.

Today, through diffusion MRI, scientists can noninvasively uncover major axon pathways in the brain by measuring the motion of water contained within a group of axons traveling from one point in the organ to another. Through placement of electrodes on patients’ scalp, physicians can map out the source of their epileptic seizures, allowing surgeons to operate.

Like many undertakings, Portraits of the Mind happened by chance. A co-founder of NeuWritE, a writing workshop composed of writers and neuroscientists, Mr. Schoonover was exploring new ways to present neuroscience to scientists and nonscientists that were scientifically valid but accessible.

Three years ago, he happened to meet Andrea Danese, a senior editor at Harry N. Abrams, Inc., a book-publishing company in New York City. Mr. Schoonover opened his wallet to show her images of brain research data, and the outlines for the book began to take shape.

In the final essay of Portraits of the Mind, Joy Hirsch, neuroimaging specialist at Columbia University, encapsulates why studies of the brain are important for physicians, pathologists, and laboratory professionals.

“This science will ultimately translate into benefits for medicine and society,” she wrote. “Our ability to measure the biological mechanisms of human behavior using brain imaging introduces a new dimension of objectivity into our investigations, which will help translate research findings to advances in patient care and quality of life.”

For all that this beautiful book teaches human beings about their brains at its core, the human brain still holds more mysteries to explore. What are the basic principles of how circuits in the brain function? How are circuits in the brain taking information and processing it? Mr. Schoonover seeks to uncover some of those mysteries that drive him to contribute to the field of neuroscience—By Sara S. Patterson, MSJ
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