



A moment with a patient can teach a pathologist more than a book or journal can in a year.

Gaurav Sharma, MD

Transformation- By Nature or Nurture?

Ask Gaurav Sharma, MD, a board certified anatomical and clinical pathologist and fellow in Molecular and Genetic Pathology at the University of Michigan, to describe a truly transformative pathologist, and he will say, “[He] is a physician who uses integrated laboratory sciences to guide the medical management of a patient in a meaningful way, and realizes that in doing so, [he] impacts the patient’s life in a very close way.” That definition seems almost second nature to this doctor.

The nature versus nurture debate can be traced to the 1600s, when Shakespeare addressed it in *The Tempest*. It is often unclear how our life experiences and genes influence our thought, yet take a closer look at this young man’s life, and it is quite clear why pathology, patients, and family are so closely connected.

Dr. Sharma was born and raised in India where his father, Dr. Rakesh Sharma is an anatomical and clinical pathologist who practices at his own clinical laboratory in Delhi. Interestingly, Indian pathologists often choose to name their laboratories ‘clinics’ to imply a direct physician-patient relationship. In fact, the senior Dr. Sharma spends his mornings meeting his patients to discuss their laboratory test options while evenings are spent explaining the test results to the patient and the referring clinicians.

Appropriate test selection, patient communication, and personnel management issues were often family dinner conversations in the Sharma home. As a proponent of embracing technology for patient safety, his father was among the first to import automated hematology analyzers and laboratory computers in the 1980s and early 1990s. To the surprise of his critics, automation resulted in superior quality of testing while lowering costs for his patients.

As a medical student, Dr. Sharma assisted his father in getting their first ISO 9001, ISO 17025, and ISO 15198 accreditation and rolling out India’s first ISO 9001 compliant voluntary external proficiency program (VILAC). Upon earning his medical degree from Delhi University, he chose to pursue combined anatomical and clinical pathology residency training in the United States. He felt that the US model led to a pathologist who was better prepared to understand the different laboratory techniques and ultimately deliver better laboratory services and healthcare to the patient.

As a resident at Henry Ford Hospital, Dr. Sharma was part of a team that developed and implemented the Henry Ford Production System for laboratory quality management, leading to transformation of their operations and work culture. By emulating the successful Deming-based management principles of the Toyota Motor Corporation, he realized that workplace design and automation must be implemented with due respect to downstream workflow changes and appropriate personnel training. As a trainee, he also realized that a pathologist must wear many hats: physician, scientist, process engineer and an administrator.

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Transformation- By Nature or Nurture? (continued)

At the forefront, he learned that laboratories must constantly improve patient safety, test quality, and efficiency and that informatics plays a critical role in fulfilling this aim. To gain experience in this field, he underwent fellowship training in Pathology Informatics at the University of Pittsburgh Medical Center and worked on projects in practical applications of digital imaging, a transformative technology that has steadily changed the delivery of services and enabled several novel applications in pathology. Presently, he is undergoing training in Molecular and Genetic Pathology and learning about emerging technologies that can help understand and treat disease at a molecular level.

He believes that future pathologists will practice in a clinic-like scenario where their expertise in integrating anatomical, clinical and molecular pathology will be valued and recognized by their peers and patients. As a pathologist, interacting with his patients is high on his list of priorities. According to him, “a minute with a patient can teach a pathologist more than a book or journal can in a year.” He says, “What we need is a scientific utilization and medical integration of laboratory services to benefit our patient.” Pathologists can start by being easily available to clinician colleagues and open to dialogue about minimizing unnecessary testing and the justifiable use of laboratory resources.

Dr. Sharma has witnessed the support of young pathologists by both the College and the CAP Foundation. This support is evident in the numerous educational programs focused on evolving practice models as well as the awards offered to residents. He has been a recipient of the CAP Foundation's Leadership Development Award and a member of the CAP Spokesperson Program. Committee work also offers great insight; as a CAP Junior Member, Dr. Sharma serves on the CAP Standards and Informatics Committee.

Dr. Sharma's wife, Gargi Vidholia, MD, a geriatrician and a family physician, also serves as a “healthy critic,” someone who reminds him that clinicians often depend on the laboratory to provide actionable information and not just pieces of data. He values that lesson, above all, and will continue to share it with fellow pathologists and colleagues. He will even emphasize it with his brother, a recent medical college graduate who is pursuing a residency in pathology.

Dr. Sharma is passionate about being a patient-focused physician leader. His career aim is to improve patient safety, test utilization protocols, and personnel and process efficiency by eliminating waste and engaging everyone in continual process improvements. He plans on utilizing informatics to streamline and automate laboratory processes. He wishes to motivate pathology and clinical residents to consider learning more about the pre-analytical (what is the right test?) and post-analytical (what is the meaning of this result?) aspects of laboratory testing while zealously making the analytical aspect more efficient and accurate.

For Dr. Sharma, it doesn't matter whether nature or nurture inspire his passion—what matters is that he is integrating and transforming pathology and hopefully these efforts will bring pathology (and the pathologist) closer to the patient.