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My motivation to become a clinician scientist derived from my realization that using the power of the scientific method to prevent and alleviate suffering from disease is perhaps humankind's greatest achievement. We live at a time when scientific information is expanding dramatically, and there is great pressure to convert the vast amount of new information into improved therapies and quality of life for patients. I believe that clinician scientists are uniquely positioned to accomplish this task.

Contact with patients has helped me to identify clinically relevant questions that I seek to address in my research. One area of particular interest to me is the identification of patients who are at risk for developing diseases such as glaucoma that may affect their quality of vision. In 2005, my colleagues and I published the first validated risk calculator to identify patients with ocular hypertension who would be at highest risk for the development of glaucoma.¹ This is an area of continued research, and I hope that future models will further improve clinicians' ability to detect those at risk.

Another area of interest to me is the assessment of rates of glaucomatous progression using imaging technologies. Although glaucoma progresses relatively slowly in most patients, others have aggressive disease and experience a fast deterioration, which can eventually result in blindness or substantial impairment without appropriate intervention. The evaluation of rates of change is therefore a fundamental aspect in the management of this disease so that resources can be directed toward the patients who are the most likely to develop substantial impairment. My colleagues and I have published a series of articles on measuring rates of change using different technologies such as optical coherence tomography, scanning laser polarimetry, and confocal scanning laser ophthalmoscopy. This research has shown that these technologies can now provide clinicians with objective and useful estimates of rates of change that have not been previously available in clinical practice.²

The importance of well-conducted and methodologically correct studies cannot be overemphasized. Owing to my background in statistics, a large part of my research has been directed toward the use of biostatistics to help improve the design and methodological aspects of diagnostic studies in glaucoma as well as the development of innovative ways of using the information provided by these tests. Recently, we showed that a combina-

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tion of structural and functional tests using Bayesian statistics may improve the detection of disease progression, a finding that we believe may help clinicians to integrate the different pieces of information derived from optic nerve and visual field assessments.³

We are also conducting research to help us understand how glaucoma affects the activities of daily living. We recently proposed the use of a driving simulation as a performance-based test for evaluating functional impairment in glaucoma, and we are now collecting longitudinal data on driving simulation and several other tests in order to evaluate the relationship between glaucoma and disability.

I have been fortunate to receive funding from several different organizations to perform my research, including the National Eye Institute and the American Glaucoma Society. In addition, I am extremely grateful for the guidance and knowledge provided by my mentors throughout my career. I would certainly not have been able to pursue being a clinician and a researcher without them. □

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