Online study tool helps ophthalmologists prepare for exams

Interactive question-and-answer format keeps relevant information at users’ fingertips

By Kathryn McClelland

When Dr Gus Stern and Dr Sidney Chang were studying for their in-service examinations during residency, they always felt like the review books they were using were outdated. “We really wanted a more contemporary knowledge base,” Dr Stern said. “We struggled to create our own multiple-choice questions and really saw a need.” The two went on to fellowships and private practice, but never forgot their vision for something better. In 2010, they started working on a website to help ophthalmic trainees study, and it went live in September 2011. Their joint creation, www.OphthoQuestions.com, uses an interactive testing engine that helps subscribers prepare for their standardized exams and learn high-yield clinical information.

With over 5000 users so far, OphthoQuestions has quickly grown to become the most popular ophthalmology question bank in the world. “It has thousands of questions on all aspects of ophthalmology, and it simulates real exams better than any other study tool, including being timed,” Dr Stern said. “It is easy to navigate and gives you instant feedback with detailed explanations about the correct answers. It really lets you use your study time well.” Users can select the number of questions they would like to answer in each session. They can also see how their results rank against other users of similar training levels, so they know how they are really doing.

Constant updating

Also, as Drs Stern and Chang, who now practice ophthalmology at the Maryland Vision Institute in Hagerstown, Maryland, USA, wanted so much during residency, the material is never out of date. “We work on it a few hours each night after the kids are in bed to update it, and we have contributors from many areas who help us keep it current in their field of expertise,” he said. Among some of the contributors:

- Dr Collin McClelland, an assistant professor of neuro-ophthalmology at Washington University in St Louis, Missouri, USA.
- Mohammed Ziaei, MBChB (Hons), FRCPht, winner of the ‘Elizabeth Hunt’ and ‘Brian Harcourt’ medals for the highest marks achieved in the refraction and FRCPht exit examinations.
- Dr Raquel Goldhardt, an assistant professor of ophthalmology at the Bascom Palmer Eye Institute and VA hospital in Miami, Florida, USA, who specializes in retinal diseases and uveitis.
- Dr Sonya Bamba, an assistant professor of cornea/external disease and ophthalmic

**IN SHORT**

- OphthoQuestions, an online resource for ophthalmic trainees, is the brainchild of Drs Stern and Chang. In this article, the premise of the website is explained and further details of how this may help trainees are revealed.
pathology at Cook County Hospital in Chicago, Illinois, USA.

- Dr Virginia Utz, an assistant professor of paediatric ophthalmology at Cincinnati Children's Hospital, Ohio, USA.
- Shu-Hong (Holly) Chang, an assistant professor of oculoplastics at the University of Washington in Seattle, Washington, USA.
- Dr Peter Kastl, PhD, a professor of ophthalmology at Tulane University, New Orleans, Louisiana, USA, whose areas of clinical expertise include cataract, refractive, and corneal surgery. He also is editor-in-chief of 'Contact Lenses: The CLAO Guide to Basic Science and Clinical Practice'.
- Dr Nick Mamalis, director of the ophthalmic pathology laboratory at the Moran Eye Center, Salt Lake City, Utah, USA.

**Results**

Users are telling Dr Stern that they are impressed with the website. "We have more than double the number of questions of the next best resource," he said. "We currently have more than 3700 questions and are always adding more. We are also one of the only resources that incorporates optics and pathology."

The question pool incorporates hundreds of high-resolution clinical images of the anterior segment, retina, neuro-imaging, visual fields and optic nerve to facilitate learning. In addition, users have the option of posting comments about particular questions if they disagree with an answer or see any type of problem. These e-mails are then sent directly to the contributors, which allows constant peer-review verification of website content. In addition, users can respond to each other's comments, creating an interactive community within OphthoQuestions.

"Review books can't do that," Dr Stern said. "What we offer is reliable, realistic comprehensive, and interactive." Recently added innovative features to the website include video questions and an optional supervisory mode through which trainee supervisors can actively monitor and track performance of their trainees.

In addition to the more than 3700 questions for all standardized tests, OphthoQuestions has a special question bank written exclusively for those preparing for part 2 of the FRCOphth exam. The FRCOphth question bank was written by Mohammed Ziaei, MBChB, who trained at Moorfields Eye Hospital in London, UK, and was awarded the ‘Elizabeth Hunt’ and ‘Brian Harcourt’ medals for the highest mark achieved in the refraction and FRCOphth exit exams, respectively.

In the past year alone, OphthoQuestions has added more than 2100 new subscribers. Out of its 5000 total users, about 80% are from the US, 10% are from the UK, and 10% are from other countries. Although the site's primary users are trainees and recently graduated ophthalmologists preparing for standardized exams, Dr Stern said he does envision mid-career ophthalmologists using it to prepare to recertify their boards every decade. "We really think it's relevant to all demographics," he concluded.