

Diana V. Do, MD

Dr. Do is an Associate Professor of Ophthalmology and Assistant Head of the Retina Fellowship Training Program at the Wilmer Eye Institute, Johns Hopkins University School of Medicine, in Baltimore, Maryland.

1. What attracted you to the field of ophthalmology and, more specifically, the subspecialty of retina?

The subspecialty of retina has been a wonderful career choice for me. I enjoy the complexities of both surgery and medical retina. I also have had terrific mentors (Drs. Susan Bressler, Neil Bressler, and Peter Campochiaro) who have been very supportive and have helped guide me to find a research focus early on. Each day I feel challenged intellectually, and I find great satisfaction knowing that I am contributing in a meaningful way to improve patients' vision and quality of life through my clinical care and research. I am also very fortunate to be able to share my professional career with my husband, Quan Dong Nguyen, MD. Collaborating with Quan has made retina even more enjoyable for me.



2. What are some challenges you met as a principal investigator of the DA VINCI study?

The challenges of clinical research are also the most gratifying aspects of it. Collaborating with colleagues and industry scientists to design a study protocol can require an enormous amount of time and labor; however, it is very rewarding to finally see the protocol come to fruition and to work together to enroll subjects and test novel therapies. Actively participating in clinical research provides me with an additional source of intellectual stimulation that I find very fulfilling.

3. What skills do you try to instill in your students?

Having had the wonderful experience of being taught by dedicated physicians, I feel inspired to share my knowledge with retina fellows. Every Retina Division faculty member at the Wilmer Eye Institute makes teaching a top priority. My colleagues and I provide our trainees with the medical knowledge, ethical integrity, and surgical skill set necessary to become outstanding surgeons, clinicians, and researchers.

4. What novel therapeutic approaches or surgical techniques do you anticipate will improve the treatment of vitreoretinal diseases over the next few years?

In regard to retinal vascular disease, aflibercept (Eylea; Regeneron Pharmaceuticals, Tarrytown, NY), which is under US Food and Drug Administration (FDA) review for neovascular age-related macular degeneration (AMD), is a promising therapy because clinical trials have shown its efficacy, safety, and durability. When aflibercept is approved for neovascular AMD, retina specialists will be

able to use an intravitreal therapy with a longer duration of action than the currently available vascular endothelial growth factor inhibitors. Hopefully, ongoing phase 3 clinical trials of aflibercept for diabetic macular edema will demonstrate its long-term efficacy and safety in that disease as well.

Another promising therapy under investigation is the platelet-derived growth factor (PDGF) inhibitor from Ophthotech. A phase 2 clinical trial is being conducted to investigate if a combination of this anti-PDGF agent and ranibizumab is more effective than ranibizumab alone for neovascular AMD.

Several agents are being investigated for the treatment of geographic atrophy (GA) due to AMD. Many of these agents inhibit the complement pathway, which has been implicated in the pathogenesis of AMD. Our retina division is participating in these clinical trials and is eager to find potential therapies to halt GA, an area of unmet need.

For vitreoretinal surgery, microplasmin (Ocriplasmin; ThromboGenics, Leuven, Germany) is an exciting therapy currently under FDA review. Phase 3 studies have shown that it is effective in the treatment of vitreomacular traction and small macular holes. Microplasmin may be effective in select patients with these vitreomacular disorders and help us avoid going to the operating room.

5. What do you consider your greatest personal achievement outside of your profession?

My greatest joy is my family, and my greatest personal achievement is my daughter, Alexandra-VanHa, who is almost 14 months old. The experiences of pregnancy, delivery, and raising a newborn infant are amazing and completely life-changing! Watching my daughter grow over this first year has reminded me of how miraculous and precious life is. ■