

GIUSEPPE QUERQUES, MD, PHD

When did you know you wanted to pursue a career in ophthalmology?

I became interested in medicine in high school. Later, I enrolled in a medical university and was fascinated by the ophthalmologic pathophysiology. I was not exposed to the ophthalmology clinic until my fourth year of university, when I performed my first ocular fundus examination on a patient with a peripheral hemorrhage due to diabetic retinopathy. My assistant did not recognize the hemorrhage and congratulated me on the diagnosis. At that moment, I realized that I wanted to become an ophthalmologist and a retinal specialist.

One of your main areas of research is retinal imaging. What drew you to this aspect of the field?

Retinal imaging plays a pivotal role in establishing the diagnosis and treatment options for retinal pathologies. I am most interested in how retinal imaging helps advance medical knowledge and helps retina specialists improve patient care. Retinal diseases are numerous and many share common findings; thus, it is not always easy to distinguish them. A multimodal imaging approach allows us to precisely classify and diagnose most retinal diseases. This aspect of our clinical practice fostered my desire to investigate retinal imaging tools in depth.

What are some new technological and/or therapeutic advances that you have found particularly exciting?

The intersection between advanced imaging technology, such as high-resolution OCT, OCT angiography (OCTA), and ultra-widefield fluorescein angiography, and the ever-expanding number of treatment modalities makes caring for our patients very interesting. The aim of my group's recent studies is to better diagnose and classify retinal diseases and tailor patients' treatments.

Because of the large number of patients diagnosed with dry AMD, I would be enthusiastic to develop a treatment that could stop or slow down macular atrophy. Research protocols to treat dry AMD patients with subthreshold laser and photobiomodulation are in progress, and I am curious to verify their effectiveness.

Your team pioneered changes to the field's understanding of the staging of macular neovascularization (MNV) in 2013. How has the growth of OCTA affected that line of research?

OCTA represents an essential tool in the diagnosis of MNV and in monitoring its evolution, including treatment-naïve nonexudative forms and quiescent MNV that we first described in 2013. OCTA shows an anatomically detailed



Figure. Dr. Querques with his wife and daughter seaside during the holidays in Puglia, Italy.

visualization of MNV, allowing a staging and deeper investigation of these lesions. Moreover, OCTA, associated with high-resolution OCT, provides information about MNV activity, with the ambition of predicting short-term exudation. In addition, as a dye-free noninvasive imaging modality, OCTA is suitable to be performed frequently and is thus an essential tool in the follow-up of MNV. Moreover, the application of OCTA in research and clinical practice is likely to grow with the introduction of new algorithms to better visualize the periphery.

What are you hoping to accomplish in 2022?

Conducting research and educating ophthalmology residents and fellows will always be the focus. However, I would like to take some time to have fun at home with my wife and daughter (Figure), who are the highlights of my life outside work, and to pursue my hobbies, such as skiing and my passion for cars and motorcycles. ■

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