Early in her medical training, Janet L. Davis, M.D., was pursuing a path to internal medicine, expecting to become an oncologist. But when she took an ophthalmology elective in medical school thinking it would make her a better internal medicine doctor, Davis became attracted to the field.

Today, Davis, professor of ophthalmology, is a world renowned expert in the field of uveitis and a medical and surgical retina specialist. About 80 percent of her practice is devoted to the diagnosis and treatment of uveitis and obscure ocular inflammations and infections, with the balance focused on medical retina and vitreoretinal surgery.

Davis joined Bascom Palmer as an assistant professor in 1989 after completing a fellowship in ocular immunology at the National Eye Institute in Bethesda, Maryland. She had previously completed a fellowship in vitreoretinal surgery at Bascom Palmer and residencies in both internal medicine and ophthalmology at Baylor College of Medicine in Houston, Texas, where she also earned her medical degree.

Within months of beginning her ophthalmology training, Davis knew she wanted to specialize in retina. “It was one of the things I was convinced of,” she recalls. “Retina is so interesting — it is a broad field with so many intricacies.” Her advisor at the time, David Parke, M.D., now president-elect of the American Academy of Ophthalmology, encouraged her to pursue dual fellowship training in both retina and ocular inflammation. She heeded his advice, developing extensive knowledge in the field, with particular emphasis on posterior inflammations involving the retina, and becoming one of the first specialists with a dual emphasis in retina and uveitis.

Uveitis, Davis explains, is a collective term referring to a number of conditions that can produce inflammation of the uvea, the middle layer of the eye, including the iris, the ciliary body and the choroid. “It is very uncomfortable and can be very damaging to the eyes. Often, treatment uses medicines which can have serious health consequences.”

While fifty percent of uveitis cases have no known cause, the other half can be tied to a variety of causes, including eye surgery or trauma, a virus, bacteria, infections or a parasite. Uveitis can also be related to autoimmunity and certain genetic factors. In children, the most common cause of uveitis is juvenile idiopathic arthritis (JIA).

“Typically, uveitis is diagnosed after an elaborate workup,” Davis says. The most common form, anterior uveitis, affects the front of the eye, the iris or the ciliary body. But with so many unknowns, the diagnosis is often more descriptive than specific. “It could be related to infection, such as herpes or a genetic predisposition,” she says.

For some patients, the condition can be extremely painful; for others, pain and symptoms, such as sensitivity to light, can fall more in the middle range. In the case of children with JIA, there are often no symptoms, though symptoms, such as scarring, can be accumulating in the eye.

In addition to her clinical practice, Davis conducts extensive research in the field of ocular inflammatory disease. Of special interest to her are intraocular infections, especially rare infections. “Treating ocular infections is very gratifying because a cause can be determined and treated. Most cases can also be cured, although residual damage may be extensive.”
Davis was recently awarded an unrestricted grant from the Marti-Haidar Foundation for research at Bascom Palmer in ocular inflammatory diseases. She hopes the grant will help deliver more specific diagnoses and more effective treatment for uveitis patients. “I hope to buck the trend that has become the mainstream in the field of uveitis in terms of trying to lump patients into groups with established diagnostic and treatment protocols and to recognize that uveitis is a complex disorder with much variability between patients,” Davis says. “We have the ability to look at the biologic individuality of patients with highly sophisticated molecular means to define, based on what is happening in the eye and in the body, and to use specific biologic treatments that have been developed for other autoimmune diseases.” Research assistant professor, Livia Bajenaru, Ph.D., has been recruited to help with this project.

Davis, who is widely published, is also investigating new drugs and biologic agents to treat uveitis. She is currently the principal investigator on the NEI-sponsored “Multicenter Uveitis Steroid Treatment Trial (MUST).” The randomized controlled clinical trial is comparing two treatments for patients with vision-threatening, non-infectious intermediate uveitis, posterior uveitis or panuveitis. A model of posterior segment uveitis is being developed to study the effectiveness of new biologic drugs in treatment.

“I am looking forward to the next few years in the uveitis center being very productive, particularly in terms of research,” Davis says. She looks forward to continued faculty growth, attracting more specialists in the field of uveitis, such as Thomas Albini, M.D. and Victor Perez, M.D., who recently joined Bascom Palmer and share her research interests. Within a year, Davis also plans to establish a broadly diverse uveitis fellowship including training in both anterior and posterior segment surgery.

“With the resources we have, Bascom Palmer can have the best training fellowship in uveitis in the country.”

One very significant and rewarding aspect of Davis’ work is fulfilling her role as a director for the American Board of Ophthalmology, the independent organization responsible for certifying ophthalmologists in the United States. “It puts things in a very different perspective; you are really talking about ways to improve the eye care provided to the American public,” she says. “It goes beyond my responsibility to take care of my patients and teach other doctors. It is a very rewarding way to give back to my profession.”

Davis lives in a mid-century modern house in Miami Shores with her husband of 30 years, a golden retriever, two 15-year-old Burmese cats and 10 huge oak trees. For recreation, she reverts to her background as an English and French major and reads contemporary and classic literature in both languages. Davis’ goals for this year are to find more time to exercise and to get back into golf.