Ophthalmology and Visual Sciences

Chair
• Keith D. Carter

Professional certificate: orthoptics
Faculty: http://www.medicine.uiowa.edu/eye/people/
Web site: http://www.medicine.uiowa.edu/eye/

Ophthalmology is a medical and surgical specialty concerned with the diagnosis and treatment of diseases of the eye and its adnexa. The Department of Ophthalmology and Visual Sciences combines postgraduate training with research and patient care in all aspects of the visual sciences. Subspecialties represented in the department include cataract surgery, comprehensive ophthalmology, cornea and external diseases, contact lens and refraction services, genetics and molecular biology, glaucoma, laser refractive surgery, neuro-ophthalmology, oculoplastic surgery, ocular echography, ocular pathology, ocular vascular diseases, optometric services, pediatric ophthalmology and adult strabismus, vitreoretinal disorders, and vision rehabilitation.

M.D. Student Training, Graduate Education

The department offers clinical and research training to M.D. students and limited graduate studies for Ph.D. students in Anatomy and Cell Biology, Molecular and Cellular Biology, and Genetics. A three-year residency program with clinical experience in the ophthalmic subspecialties is offered to physician trainees. Graduates qualify for the written and oral examinations leading to certification by the American Board of Ophthalmology. Postgraduate fellowships of one to two years are available for qualified ophthalmologists in most subspecialty areas.

Professional Program of Study

• Certificate in Orthoptics
The first four to six weeks are spent reviewing general anatomy and physiology, and learning the basic anatomy, physiology, and terminology of the eye. Students are initially introduced to patient examination by observation of physicians and orthoptists, and gradually increase their exam skills as each new technique is learned. Over the first six months anatomy, physiology, optics, and principles of strabismus and amblyopia are taught in depth.

In the second six months of training, students expand their knowledge of basic orthoptic and ophthalmologic principles and apply them to a more complete patient examination and diagnostic skills. The remaining months are spent examining patients in clinic, mastering examination techniques and differential diagnosis as well as becoming proficient in the interpretation of diagnostic tests.

Time each week is reserved for orthoptic lectures and examinations. Students are expected to complete a research project and give presentations during the training period.

Contact the Department of Ophthalmology and Visual Sciences for information about the professional Certificate in Orthoptics.

Continuing Education

The department sponsors clinical conferences open to community ophthalmologists in Iowa and surrounding states where physicians can earn continuing medical education credits. The department also sponsors an annual alumni meeting with participation by nationally and internationally recognized ophthalmologists and vision scientists.

Facilities

The department maintains research laboratories for cell biology, biochemistry, morphology, tumor diagnosis, pathology, electrophysiology, pupillography, molecular biology, and vascular disease. Clinical facilities in ophthalmology are available at University of Iowa Hospitals and Clinics in the Pomerantz Family Pavilion and at the Iowa City Veterans Affairs Medical Center and the Veterans Affairs Central Iowa Health Care System in Des Moines. The department also manages an eye clinic at the Broadlawns Medical Center in Des Moines as well as outreach programs in other communities. The John and Marcia Carver Nonprofit Genetic Testing Laboratory, dedicated to providing affordable testing for rare eye diseases, is associated with the department.

Courses

OPHT:8301 Clinical Ophthalmology 2,4 s.h.
All aspects of clinical ophthalmology; patient rounds, lectures, case presentations; clinical duties with staff, residents, faculty in UIHC and VAMC ophthalmology clinics. Requirements: M.D. enrollment.

OPHT:8401 Elective in External Eye Disease 4 s.h.
Common diseases of eyelid, conjunctiva, cornea.

Visual, ocular motor dysfunction due to neurologic disease; patient work-up, readings, neuro-ophthalmology rounds.

OPHT:8403 Molecular Ophthalmology arr.
Use of recombinant DNA, tissue culture, protein electrophoresis in study of inherited eye diseases.

OPHT:8404 Elective in Ocular Pathology 4 s.h.
Pathophysiology of eye disease; emphasis on use of Socratic method, self-study.

OPHT:8498 Ophthalmology On Campus arr.

OPHT:8499 Ophthalmology Off Campus arr.