

What does it take to work in vision research?

Researchers have a variety of educational experience and professional skills.

- **Laboratory technical personnel** typically have a bachelor's and master's degree in life or physical sciences and research experience in vision research or related areas. They work under the guidance of a principal investigator.
- **Senior laboratory personnel** usually have a PhD and work closely with the principal investigator to guide the research direction of the laboratory.
- **Principal investigators (PI)** are basic scientists or clinicians who direct research in vision science. They secure funding and are responsible for the overall direction of the research as well as reporting this information to the scientific community. Most PIs have a doctorate (PhD, ScD) or advanced clinical degree (MD, MD/PhD, OD, DVM).

Find out more

- School and college counselors are good sources for learning about educational paths to careers in the health and science fields.
- Science teachers, college faculty and health professionals are good role models.
- Major research centers and universities provide general information on eye diseases and vision research online. Contact the Association for Research in Vision and Ophthalmology for general advice or to seek a mentor. outreach@arvo.org

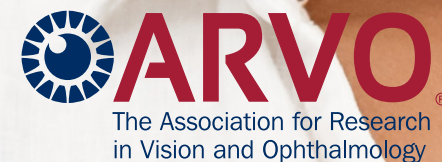
About the Association for Research in Vision and Ophthalmology

The Association for Research in Vision and Ophthalmology (ARVO) is the largest community of eye and vision researchers in the world, with nearly 11,000 members from more than 75 countries. The association advances research worldwide into understanding the visual system and preventing, treating and curing its disorders.



See your future in eye and vision research

Eye and vision research offers a variety of exciting careers. Is one of them **right for you?**



Vision research needs you

According to the World Health Organization, globally, 1 billion people have a vision impairment that could have been prevented or has yet to be addressed. While researchers are making great strides in discovering new treatments for eye disease, more work is needed to help prevent and cure vision disorders.

Eye and vision research particularly needs scientists from African American, Latino, Native American and other minority backgrounds. Diversity will strengthen the field and bring new perspectives to this vital work.

Open your eyes to opportunity

Careers in vision research are varied and exciting.

Ophthalmologists (MD or MD/PhD)

- Ophthalmologists are medical doctors who provide eye and vision care and may also practice surgery.
- They may be specialists in a particular research area.
- Ophthalmologists can participate in research to test the safety and effectiveness of new drugs.
- Research ophthalmologists work in medical schools as well as private practice.

Optometrists (OD)

- An optometrist is a vision specialist trained at an optometry school and licensed by the state in which he or she practices.
- Optometrists are primary eye care providers who diagnose, manage and treat disorders of the visual system.



“Ophthalmology, vision research specifically, has a lot of diversity, ranging from engineering-related areas to cancer research to detailed lab work”

Basic and applied scientists (PhD)

- PhD basic researchers are assistant, associate and full professors. They work in basic natural and behavioral science departments and professional schools (medical, veterinary, pharmacy, optometry and others) at research-intensive universities or teaching institutions.
- Some scientists and clinicians work in clinical research and clinical trials within government and private industry. They translate ideas into products for patients and clinicians.



Other careers

Roles in eye and vision research can vary widely and overlap with other fields.

Clinical trialists from a range of backgrounds can lead studies whose findings may directly improve the care and quality of life for patients with eye and vision disorders. Likewise, **trial data collectors** are experts in the mathematics and statistics necessary for these potentially life-changing studies.

Engineering-related careers in imaging and nanotechnology are the future of eye research. Sophisticated imaging technologies allow scientists to visualize and treat eye diseases. Nanotechnology, in which scientists approach systems from the subatomic level, will play a tremendous role in future drug delivery systems and diagnostic techniques in eye and vision care.

“Vision research is a rewarding field because it gives me the opportunity to discover causes of problems on my own.”



Veterinary ophthalmologists

may examine, study and treat a variety of animal species for eye abnormalities. Their studies often can help both animals and humans.

Vision rehabilitation professionals

include optometrists, therapists, technicians and others who work with people with impaired vision to improve their quality of life — through therapy, training, optical aids and more.

Professional advocates,

who have varied scientific backgrounds, serve as a bridge between the vision research community and the public, policy makers and organizations that fund vision research.

“I would definitely recommend a career in vision research.”

www.arvo.org

