

Culver Vision Discovery Institute

NEI Center Core Grant for Vision Research (P30)

In September 2020, the Vision Discovery Institute (VDI) of Augusta University was awarded a prestigious and highly competitive Center Core Grant for Vision Research supported by the National Eye Institute of NIH. The core grant enhances significantly the capabilities of VDI scientists to conduct cutting-edge, clinically-relevant vision research related to major sight-threatening disorders.

The center core grant provides support for module personnel who assist and train investigators and their staff in the use of sophisticated instrumentation and methodology. It provides select services thereby enhancing productivity of Augusta University vision researchers and avoiding unnecessary duplication of equipment/effort. It ensures continued productivity of outstanding clinically-relevant vision research by assisting: a) established and first-time NEI R01-funded investigators, b) established NEI R01-funded investigators who seek to renew their NEI-funded projects or develop new vision-related projects, c) scientists from other fields who bring their scientific expertise to the fields of vision research.

Organization/Administration of the P30 core grant

The center core grant for vision research provides crucially needed expertise and instrumentation to enhance the vision research programs of talented researchers and promotes collaborations within the group and with scientists across the nation. This is achieved via modules that provide research resources, services and shared instrumentation that are essential to the success of ongoing projects in multiple laboratories:

- (1) **Visual Function Assessment**
- (2) **Histology and Imaging**
- (3) **Gene Expression/Proteomics**

The P30 center core grant is directed by Dr. Sylvia B. Smith, Regents' Professor and Chair of Cellular Biology/Anatomy and Director of the VDI. The locations of each module and the names of the module directors/co-directors are provided below. Additional contact information can be found on the individual websites for each module.

MODULE & LOCATION	DIRECTOR	CO-DIRECTOR
1. Visual Function Assessment (CB2908)	Sylvia Smith, PhD	Amany Tawfik, MD, MSc
2. Histology and Imaging (CB 1113 & CB2309)	Xingjun Fan, PhD	Shruti Sharma, PhD
3. Gene Expression/Proteomics (CN2142 & CA1041)	Yutao Liu, PhD	Ashok Sharma, PhD

Eligibility to use the core

Researchers (principal investigators and their laboratory personnel) at Augusta University who study the eye and visual system are eligible to use the center core. In addition, affiliated faculty with vision research project (such as those in the UGA Experimental Therapeutics Program) are eligible.

Priority for core use

Prioritization for use is as follows:

1. NEI-R01 funded vision researchers
2. NEI-funded investigators (those with non-R01 grants such as K08, K99/R00, R21, F31 etc)
3. Vision researchers who are renewing NEI grants
4. Vision researchers who are developing new projects
5. Investigators who are entering the field of vision research

Module directors are mindful that eligibility for an NEI Center Core Grant for Vision Research (P30) is directly linked to investigators that are funded by NEI, and that the primary intention of this support is to “lead to greater productivity for [those] projects.” In the event that multiple NEI-R01 funded investigators have simultaneous needs, the module managers will consult with the module director/co-director to make determinations of urgency (i.e. time-dependent studies, impending deadlines etc). It is anticipated that there will be investigators with research expertise *unrelated to eye*, who will benefit from the core as a way to expand their research footprint and impact the field of vision science. We welcome you!

Role of the module directors/module managers

Module Directors: Each module is overseen by a director/co-director who can provide consultation on experimental design related to (1) visual function assessment, (2) histology/imaging, or (3) gene expression/proteomics. For vision researchers who are unfamiliar with a particular technique or require consultation for experimental design, please schedule a meeting with the director or co-director to describe your needs and obtain guidance on the appropriate approach to address your scientific question.

Module managers/staff members oversee daily usage. They coordinate the electronic calendar of usage and ensure the proper use and maintenance of equipment. Their contact information is available on the webpage module links. Module 1 personnel are fully available to train investigators on the use of visual function assessment equipment and are on-hand to troubleshoot in the event of any problems. Module 2 personnel accept samples for histologic processing/immunohistochemistry studies/EM analysis. They also train investigators (or members of their laboratories) on the use of confocal microscopes, laser capture microdissection and other imaging equipment. For Module 3, the director or co-director will offer consultation and support for experimental design in gene expression/proteomic studies. Staff members in module 3 can assist with sample preparation and with data analysis.

Costs associated with module use

There is no charge associated with the use of Module 1 or Module 2. Labor is provided at no cost to the Participating Investigator. This includes time the module staff expend in conducting experiments. For Module 2, certain supplies (such as primary antibodies, special reagents) are borne by the Participating Investigator. For Module 3, there is not charge for consultation with the director or co-director and there is cost-offset with sample preparation. The costs of proteomic profiling and RNA sequencing will be borne by the individual investigators, however some of the costs of the analysis of the complex data forthcoming from these studies will be offset by the module.

Responsibility as a P30 core grant user

1. **Citing the P30EY031631.** Every publication, poster, presentation, press release, or other document about research supported by an NIH award must include an acknowledgment of NIH award support and a disclaimer such as “Research reported in this publication was supported by the National Eye Institute of the National Institutes of Health under Award Number **P30EY031631**. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.”
2. Prior to issuing a press release concerning the outcome of this research, please contact the Core Grant PI, Dr. Sylvia Smith (sbsmith@augusta.edu), who will notify the NIH awarding IC in advance to allow for coordination.
3. Follow guidelines to submit usage requests and adhere to directives set forth for each module to ensure proper care/maintenance of equipment.
4. Respect the oversight by module directors to allow fair and equitable use of the resource.