



Research to Prevent Blindness

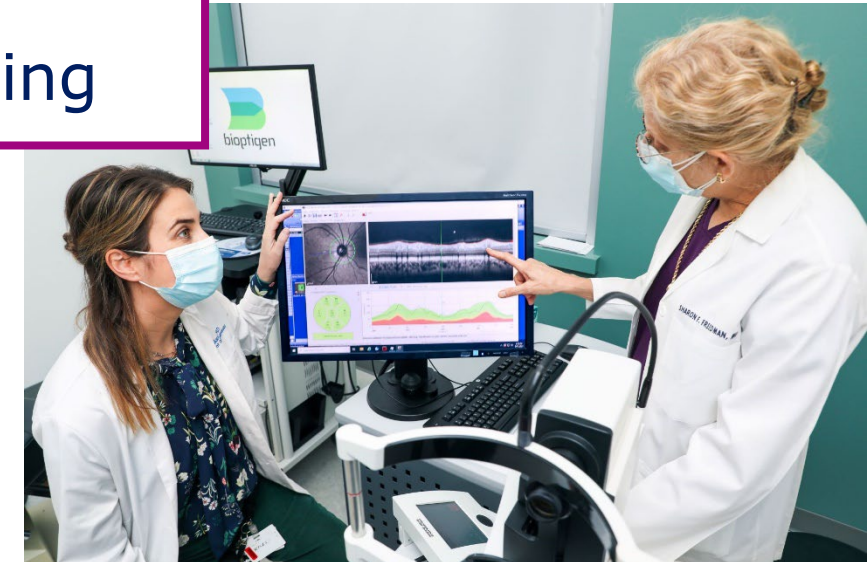
NASEM Myopia Consensus Study

July 18, 2023 Committee Meeting



ESS

Brian F. Hofland, PhD
President



RPB Mission

- * Support and advance research to develop treatments, preventives and cures for all conditions that damage and destroy sight
- * Strengthen and advance an excellent and diverse vision science research community

Mission is
63-years
strong

RPB catalyzes the
vision research
field

Focus on
innovation
&
collaboration

RPB Grant Program

\$400 M+

Grants and grant eligibility

- High-risk / high-gain research opportunities
- Many multi-year grants
- Impact knowledge base & trajectory of researcher's career

Investing in people

- Flexible nature of grant funding
- Support for clinician-scientists
- Focus on funding excellence

Adapting to a changing research environment

- Collaboration / leveraging of funding
- New & evolving grants

**Strategic
& impactful
RPB funding**

RPB Grant Model



Unrestricted/Challenge Grants

- **Unrestricted:** \$115K annually; re-apply every 5 years
- **Challenge:** \$300K/4 years; mid-point progress report



Individual Grants

- Career-stage based
- Topic-based
- **New awards** as dictated by scientific needs

RPB Myopia Research

Existing Individual Grant Examples:

Dr. Daniel Schwartz (University of California, San Francisco)

RPB Stein Innovation Award (2016 – 2020)

Project: Developing and testing a novel light-activated drug that potentially can arrest progressive ocular growth and macular stretching that occurs in degenerative myopia.

Dr. Quan Hoang (Columbia University)

RPB Career Development Award (2014 – 2018)

Project: To use collagen cross-linking agents to restrict scleral growth in patients with myopia (near-sightedness).

New Award:

RPB Physician-Scientist Award in Myopia Research launching in 2024



RPB Priorities

- Given the key findings to date from experimental models of emmetropization and myopia, what are the gaps in knowledge and/or barriers to progress in understanding the link between known risk factors for myopia development in children and the cellular and molecular biology controlling eye growth?
- Epidemiological data indicate changes in environmental factors (e.g., amount of time outdoors or near work) explain the rapid increase in myopia prevalence. What are the limits in interpreting these data? What experimental studies can address mechanistic drivers? How can these findings inform preventive and counteractive measures?
- What are the unique characteristics of electronic devices that contribute to the rapid increase in myopia? What additional research is needed to inform potential design changes to make electronic devices safer?
- Despite the existence of effective interventions, uncorrected refractive error (for myopia and hyperopia) is the leading cause of vision impairment. What are the socioeconomic barriers to diagnosis and refractive correction in underserved populations? What research efforts might lead to innovative and effective methods for mitigating and overcoming these issues?

Thank You



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