F.M. KIRBY FOUNDATION SOLICITATION EVALUATION FORM

DATE: November 28, 2022 **REQUEST DATE:** October 31, 2022
Last grant acknowledgment: Yes
Program Area: Health

APPLICANT:
Scheie Eye Institute
Department of Ophthalmology
Myrin Circle
51 North 39th Street
Philadelphia, PA 19104-2689

CONTACT: Mr. Joshua L. Dunaief, Adele Niessen Professor Of Ophthalmology, Vice Chair for Research
PHONE: 215-662-8657
PAYEE OTHER THAN ADDRESSEE: Trustees of the University of Pennsylvania

AMOUNT REQUESTED: $227,000 **NATURE OF REQUEST:** For capital equipment for the F.M. Kirby Center for Molecular Ophthalmology

GRANT HISTORY

SUPPORT: 1981 - 2021 **# OF GRANTS:** 34 **TOTAL DOLLARS:** $14,550,944

LAST GRANT DATE: 5/3/2021 **LAST GRANT AMOUNT:** $125,000
FYE DATE: 6/30/2022 **AFS DATE:** 9/22/2022

2014	For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology (this grant comprised our total support through 2015)	$300,000	4/14/2014
2016	For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology-$100,000 in 2016 and 2017	$200,000	4/4/2016
2018	For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology	$150,000	4/23/2018
2019	For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology	$119,500	9/16/2019
2021	For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology	$125,000	5/3/2021

No request received in 2020.

DLK COMMENTS: The Foundation has supported the Scheie Eye Institute since 1981, making 34 grants ranging from $2,500 to $5,000,000, for a total of $14.5M. The Institute's primary purpose is to shed light on the mechanisms of blinding retinal disease and to translate this information into novel therapies. In 1992, the Foundation granted $5.0M to establish and name the F. M. Kirby Center for Molecular Ophthalmology and three years later it granted $1.5M to establish an F. M. Kirby professorship. The Center includes 10,000 square feet of research space. As Justin Kiczek (and Laura Virkler) recently visited Scheie at the end of October, I will let him

elaborate on the Center itself. In 2005, FMKF made a three-year pledge totaling $2.4M to establish the F. M. Kirby Chair in Molecular Ophthalmology (Dr. Jean Bennett) and provide $400K towards capital equipment. In 2018 three Scheie scientists (including Dr. Bennett) received the Champalimaud Vision Award (which includes a $1.0M prize), which has been called the "Nobel Prize of Vision," for their scientific advances which resulted in the first gene therapy cure for an inherited disease. Their research opened the way to revolutionary new treatments for genetic conditions. This is a great example of the type of "high risk, high reward" funding we do in the medical research docket.

Since 2008, the Foundation has primarily funded capital equipment to furnish the Institute with the most up-to-date tools to assist in their efforts to make novel discoveries. The research conducted at the F. M. Kirby Center has led to the restoration of sight for blind children and continues to pave the way for similar therapies for other retinal diseases. While Dr. Bennett is officially retired, she still spends 25% of her time running her lab at the Center! We received progress reports on nine investigators whose research work ranges from gene therapy, stem cells, blindness, glaucoma, macular degeneration, retinal and ocular diseases, to optic neuritis. Awards for this distinguished group include Young Clinician Scientist Award from the American Glaucoma Society (Drs. Qi Cui and Amara Ross), three R01 grants by the NIH (Dr. Joshua Dunaief), a $6.6M renewal of the Primary Open-Angle African American Glaucoma Genetics (POAAGG) study by the NIH (Dr. Joan O'Brien), and the North American Neuro-Ophthalmology Young Investigator Award (Drs. Amara Ross and Ken Shindler). It was also noted that on July 1, 2022, Dr. O'Brien became the Inaugural Director of the Penn Medicine Center for Ophthalmic Genetics in Complex Diseases.

This year's request would fund eight pieces of equipment ranging from digital stereo microscopes ($4K each) to deformable mirrors which will upgrade the image resolution of the optics scanning laser ophthalmoscope ($86K). Five of the pieces will benefit all labs in the Center and three are unique to specific Principal Investigators.

Financial analysis attached. I recommend we fund the full request and note that it will comprise our total support through 2023. We have $125K budgeted for 2022 and 2023, so this will help hit our 2022 total grantmaking target and free up monies for 2023.

JJK COMMENTS: LHV and I visited Scheie on October 26. We were both deeply impressed by the gratitude and sense of partnership the Scheie team felt about FMKF funding. I think it is safe to say that we both lost track of the number of times we heard about a piece of equipment, "…and that this was also purchased with help from the Kirby Foundation."

Our visit imparted upon us the wide variety of research that happens at Scheie. I would break it down for the Board into three camps: genetic loss of vision; environmental loss of vision (as in related to diet/lifestyle); and injury or secondary-disease-related loss of vision. In the first camp, two examples are found in the work of Drs. Amara Ross and Joan O'Brien, both of whom have dedicated their work to better understanding the genetic architecture of glaucoma, which is disproportionately experienced by African Americans, and then finding public health methods of intervention. In the environmental camp, Dr. Dunaief considers the role of excess iron, through diet or intravenous injection, in leading to age-related macular degeneration. The final camp is represented by Dr. Ken Shindler, current F.M. Kirby Associate Professor of Ophthalmology, who investigates how strokes, infections, trauma, and conditions like multiple sclerosis can damage the optic nerve, eventually leading to blindness. Shindler is trying to determine how naturally occurring compounds like resveratrol (found in red wine and fruits) can protect against damage to

the retinal ganglion cells that make up the optic nerve. Here, his work carries over to some of the research being done at the FMKF-grantee Yale Center for Neuroscience and Regeneration Research and at Rockefeller University's Hudspeth lab. All three organizations are working to better understand (and someday hope to repair) the nerve and sensory cells that have long been considered unrepairable when injured, severed, or otherwise affected negatively.

While Scheie has advanced understanding across all these fields, I would like to remind the board of one of the most important breakthroughs: the establishment of the F.M. Kirby Center for Molecular Ophthalmology in 2004 can be seen as instrumental in the development, under the leadership of Dr. Jean Bennett, of a gene therapy for Leber's congenital amaurosis, a severe congenital blindness. The request notes that this "incredible milestone *represents the first-ever gene therapy for an inherited disease available in the United States* and the first gene therapy for a retinal disease worldwide." Moving her research directly into clinics, Dr. Bennett helped develop Luxterna, which is now delivered in clinics around the country and is said to restore retinal photoreceptor responses within days. High risk, high reward, as DLK notes!

It was also clear from our visit that, despite these different fields of eye-related research, there is a spirit of collegiality and collaboration. This was attested by Dr. Benny Chang, the newly elected Chair of the Department of Ophthalmology and director of the Scheie Eye Institute at Penn Medicine. Chang, who succeeds Joan O'Brien and Stuart Fine in this position, said he was drawn to Scheie's reputation as one of the top 5 places in the nation for research in ophthalmology.

Joshua Dunaief, the Vice Chair of Research, was clearly poised to quickly turn around, after our visit, a very impressive proposal that includes in-depth profiles of each researcher. Just as impressive is the way in which the request gives us a good sense of which researchers will be the principal users of the equipment needed.

The impact that FMKF has had on this institution is unmistakable. I second the recommendation of fully funding the requested amount of $227,000, to comprise total support through 2023.

APPLICANT: Scheie Eye Institute

FM KIRBY FOUNDATION
Financial Statement Analysis

Grantee Name:	Scheie Eye Institute	**Date:**	11/17/2022
Prepared By:	DLK		
Grant Request Amt.	$ 227,000	**Type of Financial Report Submitted**	University of Pennsylvania Audit
Budgeted Amt.	$ 125,000		
		Period Covered in Financial Report	FYE 6/30/22
Audit Firm	Pricewaterhouse Coopers		
Opinion	Present fairly	**Date of Report Issuance**	9/22/2022
Basis of Acctg.	GAAP		

Current Ratio (Liquidity Ratio/Working Capital Ratio)	1.40 *	**Amount of Unrestricted Net Assets (Operating Reserve)**	$ 7,761,326,000 *

[* Pulled from UP Health System summarized financials on Page 13 of Audit]

Note: A current ratio measures an organization's ability to pay short-term and long-term obligations. The higher the ratio, the more capable the organization is of paying its obligations. A ratio under 1 indicates that the organization's liabilities are greater than its assets.

Allocation of Functional Expenses	6/30/2022 (in thousands)	**%**	Must Read Financial Statement Notes
A. Instruction, student svcs	$ 1,804,654	14%	Ideally program expenses should be
B. Hospital/Physician practices	$ 8,983,978	71%	at least 70% of total budget.
C. Research	$ 1,044,964	8%	
D. Institutional Support	$ 374,798	3%	
E. Enterprises/Indep. Oper.	$ 480,268	4%	
F. Total Expenses	$ 12,688,662	100%	

** Functional expense breakout on p. 37 of audit

Comments/ Notes:

FY23 Budget: The FY23 budget projects gross operating margins of $2.3M vs $1.3M for FY22, and a net $714.6K (after accounting for corporate overhead of $1.6M) vs a net revenue of $1.5M (with corporate overhead of $1.1M) for FY22. Operating revenues are targeted to increase by $7.2M (16%) over FY22, primarily in increased patient revenue and grant/contract revenue. Operating expenses are also targeted to increase, growing by $6.2M (14.5%), across all line items. Scheie requested $227K. We have $125K budgeted per year. I recommend we fund the entire request which would fund eight pieces of equipment ranging from microscopes ($4K each) to Adaptive Optics deformable mirrors ($86K). We could note that the grant would cover a two-year period.

FY22 Audit: I will focus on the UPHS financials, as they are most relevant. The Health System, which includes six major hospitals, had an operating surplus in FY22 of $147.5M vs $610.9M in FY21. Net assets totaled $8.6B, a $509M increase over FY21. Operating revenues exceeded expenses by $147.5M (a decline from excess revenues of $610.9M in FY21). Of the $9.1B in total expenses reported for FY22, $31.3M (.30%) was incurred as a result of providing services to charity patients. University of Penn had investments of $22.5B, of which $20.7B were endowment-related. UPHS maintains a line of credit in the amt. of $100M. As of June 30, 2020, there was no outstanding balance. I see no red flags as a result of the audit.

APPLICANT: Scheie Eye Institute

DISPOSITION:

( ) Declination

( ) Hold for review on/about:

(xx) Approval for: **$227,000**

(xx) Hold for Board Review

(xx) Insert Information: **For: Capital equipment for the F.M. Kirby Center for Molecular Ophthalmology**

This grant shall comprise our total support through 2023.

( ) Other:

Initials: JJK Date: 11/29/22

Check #:_____ Date:_____