National Institutes of Health
National Eye Institute
Minutes of the National Advisory Eye Council
One Hundred Fifty-Sixth Meeting
October 16, 2020

The National Advisory Eye Council (NAEC) convened for its 156th meeting at 10:00 a.m. on Friday, October 16, 2020. The entire meeting was broadcast by the National Institutes of Health (NIH) videocast system, and all observers and participants, including members of the public, attended virtually. Santa Tumminia, PhD, Acting Director of the National Eye Institute (NEI), presided as Council Chair and Kathleen Anderson, PhD, served as the Executive Secretary. The meeting was open to the public from 10:00 a.m. until 1:30 p.m. The meeting was closed to the public from 2:10 p.m. until 4:00 p.m. for the review of grant and cooperative agreement applications.

Council Members Present:

Dr. Santa Tumminia, Acting Chair
Dr. Kathleen Anderson, Executive Secretary
Dr. Eduardo Alfonso
Dr. Jose-Manuel Alonso
Dr. Teresa Borras
Dr. James Coughlan
Dr. Katia Del Rio-Tsonis
Dr. Thomas Gardner
Dr. Mary Elizabeth Hartnett
Dr. Renu Kowluru
Dr. Carol Mason
Dr. Mary Ann Stepp
Dr. Benjamin Teller
Dr. Russell Van Gelder

Members of the Public Present:

Dr. Michael Chiang
Mr. James Jorkasky
Ms. Kathryn MacKavanagh
Ms. Kathy Sedgwick
Mr. Gary Thomas

NIH Staff Members Present:

Dr. Neeraj Agarwal
Dr. Houmam Araj
Dr. Steven Becker
Mr. Jonathan Bennett
Dr. Brian Brooks
Dr. Emily Chew
Ms. Karen Colbert
Dr. Mary Frances Cotch
Ms. Joy Jackson Farrar
Dr. Shefa Gordon
Ms. Felice Harper
Mr. David Higgins
Ms. Lateefah Hill
Dr. Brian Hoshaw
Mr. Rick Marquez
Dr. Sheldon Miller
Dr. Lisa Neuhold
Mr. Alexander Papadopoulos
Dr. Maryann Redford
Dr. Anne E. Schaffner
Ms. Karen Smith
Dr. Michael Steinmetz
Mr. Brian Trent
Mr. Michael Wright

NOTE: Due to the open webinar format of this meeting necessitated by the COVID-19 pandemic, additional National Institutes of Health (NIH) staff and members of the public were able to observe the open session of the meeting.

CALL TO ORDER – Dr. Santa Tumminia, Acting Director

Dr. Tumminia called the 156th NAEC meeting to order and welcomed Advisory Council members, NIH and NEI staff, and members of the vision advocacy and stakeholder communities. She introduced and welcomed Dr. Kathleen Anderson as the new Director of the Division of Extramural Activities and Executive Secretary for the NAEC. Dr. Anderson joined the NEI in September and was formerly the Acting Director of the Division of Extramural Science Programs at the National Institute for Nursing Research for the past nine months. Prior to that, Dr. Anderson served the National Institute of Mental Health for 18 years as a Program Officer and subsequently as Deputy Director for two translational research divisions. She earned her bachelor's degree in Biopsychology at Vassar College, and a PhD in Neuroscience at Rutgers University. She completed a postdoctoral fellowship in the neurophysiology of attention and memory at MIT.

COUNCIL PROCEDURES AND RELATED MATTERS – Dr. Kathleen Anderson, Executive Secretary of the NAEC and Division of Extramural Activities (DEA) Director

Dr. Anderson thanked Dr. Anne Schaffner for her service to NEI, for planning the NAEC meeting and for her expert guidance. She also welcomed attendees and thanked Council members for their expert advice to NEI. Dr. Anderson reviewed the procedures and etiquette for this Zoom meeting. She noted that the open session of the meeting was being videocast and will be available on the NIH videocast archive website.

Dr. Anderson reviewed the conflict of interest and confidentiality rules provided in the Electronic Council Book and indicated that specific instructions would be provided at the beginning of the closed session in the afternoon.

Minutes of the June 2020 NAEC meeting were provided in the Electronic Council Book prior to the meeting. A motion to accept these minutes was made, seconded, and approved unanimously. The approved minutes will be posted on the NEI website.

Dates for future Council meetings are listed in the Electronic Council Book and on the NEI website. The next Council meeting is scheduled for February 12, 2021 and will be held virtually.

DIRECTOR'S REPORT – Dr. Santa Tumminia, Acting Director

Dr. Tumminia expressed her gratitude that NEI can conduct their council business virtually and that she looks forward to when the group can meet in person. Dr. Tumminia was excited to share

that on July 24, Dr. Francis Collins, NIH Director, announced the selection of Dr. Michael Chiang as the new NEI Director. Dr. Chiang is currently the Knowles Professor of Ophthalmology and Medical Informatics and Clinical Epidemiology at Oregon Health and Sciences University (OHSU). Dr. Chiang earned a bachelor's degree in Electrical Engineering and Biology from Stanford University, a master's degree in Biomedical Informatics from Columbia University College of Physicians and Surgeons, and an MD from Harvard Medical School. He completed his residency and pediatric ophthalmology fellowship training at the Johns Hopkins Wilmer Eye Institute. Prior to his position at OHSU, Dr. Chiang was Associate Professor of Ophthalmology and Biomedical Informatics and directed medical student education in ophthalmology. He is the past chair of the American Academy of Ophthalmology Medical Information Technology Committee. Dr. Chiang's primary research focuses on the application of biomedical informatics to clinical ophthalmology. His key areas of interest include telemedicine and artificial intelligence for the diagnosis for retinopathy of prematurity and other ophthalmologic diseases. He is interested in the implementation and evaluation of electronic health record systems and clinical workflow. He is also interested in computer-based image analysis for clinical diagnosis and his clinical practice includes both pediatric ophthalmology and adult strabismus. Dr. Tumminia expressed that NEI looks forward to Dr. Chiang joining the institute officially as the new NEI Director later this fall. Dr. Chiang was in attendance during the open session of the Council meeting and was expected to say a few words later in the meeting.

Dr. Tumminia also welcomed Dr. Jennifer Schiltz to the NEI Division of Extramural Activities as a Scientific Review Officer (SRO). Dr. Schiltz came to NIH in 2011 as an Assistant Director in the Division of Receipt and Referral at the Center for Scientific Review. She joined the National Heart Lung and Blood Institute as a Health Science Policy Analyst in 2015 and in 2016 she joined the National Cancer Institute as an SRO. She received her PhD in neuroscience from the University of Pittsburgh followed by a postdoctoral fellowship at the Salk Institute. She was a tenure-track investigator at Uniformed Services University of the Health Sciences studying the role of blood-brain barrier associated perivascular cells and brain inflammatory responses in mild traumatic brain injury.

Dr. Tumminia added her thanks to Dr. Anne Schaffner for her exceptional service, enthusiasm, and deep commitment to the NEI mission. She shared that Dr. Schaffner will be retiring on November 3, 2020 and asked that members join her in congratulating Anne for her service and wishing her well in retirement.

Dr. Tumminia summarized recent progress for the ongoing trans-NIH COVID-19 efforts, including the Social, Behavioral, and Economic Health Impacts of COVID-19, particularly in Vulnerable and Health Disparity Populations (SBE COVID) initiative, the five Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) programs, and four Rapid Acceleration of Diagnostics (RADx^{SM}) programs (RADx Tech, RADx in Underserved Populations, RADx Radical, and RADx Advanced Technology Platforms). NIH is also developing a sero-prevalence network and will be looking at surveys, antibody testing, reference

panels, and standards for titers in conjunction with the CDC and the National Institute of Standards and Technology. More information about sero-net and sero-prevalence activities will be forthcoming in the next few months.

Like many academic institutions, most of NIH personnel is working from home but there is a limited laboratory staff presence on campus (less than 50%). Some NEI intramural investigators have realigned their research to focus on COVID-19. NEI is also looking very carefully at their extramural response to COVID-19, and one of the many questions asked is how NIH is planning to make grants whole. Dr. Tumminia noted that unfortunately, even with a possible stimulus package under discussion, it is unlikely that any supplement NIH receives will be able to make grants fully whole. The NIH institute directors met with the AAMC Council of Deans last month who expressed that this issue is their number one concern.

Dr. Tumminia noted that NIH is exercising maximum flexibilities to NIH applicants and grantees that include application deadlines, carryover funds, and no-cost extensions. She advised investigators to contact program officers and refer to the NIH website to address any questions about how these policies may apply to their grants. Another question posed by the AAMC Council of Deans is how lack of progress due to COVID-19 delays would impact competitive renewal applications. She provided reassurance that NIH will not assess penalties for lack of progress. All the study sections have been directed to emphasize the science of the proposals and not progress. A guide notice has been published to that effect.

The Council of Deans also raised concerns about institutions' ability to hire and difficulties finding jobs for postdoctoral fellows and other investigators nearing the end of their training. Some universities still have resources to continue hiring. NIH and NEI are considering extensions for fellows in their last year of funding to provide more time to secure their next position.

In light of the recent social unrest and health disparities exposed by COVID-19 among underserved populations who bear the greatest burden of this disease, NIH and NEI are redoubling efforts on behalf of these communities. In recent weeks, Drs. Collins and Tabak have had opportunities to speak to NIH groups to discuss equity and areas of potential bias including the Intramural African American Senior Investigators and the Eight Changes for Racial Equity (8CRE) group. NIH is committed to investing in permanent change to better serve and support underrepresented communities in the workforce, education, and patient populations. NIH has also established five trans-NIH committees with representation from all aspects of the workforce—administrative, extramural, and intramural—who will report to the NIH Steering Committee and Advisory Committee to the Director later in the year. These five committees are under an umbrella term called UNITE that represent the five different workstreams they will address: 1) Understanding stakeholder experiences; 2) New research in health disparities and inequities; 3) Internal NIH workplace and culture; 4) Talking and communicating with our internal and external stakeholders; and 5) Extramural workforce and culture. Additional information about these activities will be forthcoming in the near future.

NEI is also reviewing how employees are evaluated and hired, developed, and promoted; conducting portfolio analyses to ensure that ophthalmic medical issues that affect underrepresented groups are being addressed; monitoring clinical trial cohorts for full representation of minority groups; evaluating the grant selection process for potential hidden bias; and participating in a number of NIH initiatives, including the RADxUP initiative that specifically address underrepresented groups in research. In addition, NEI is discussing three broad areas for improvement: increasing representation of underrepresented scientists and physicians in vision science and ophthalmology and developing programs to support their continued success in these fields; conducting outreach and building a pipeline that starts at the K-12 level; and targeting research and vision health in minorities. NEI is partnering with the National Institute on Minority Health and Health Disparities (NIMHD) to develop funding opportunities that support research that addresses disparities and vision in minorities and underserved populations. NEI will also publish a Notice of Special Interest (NOSI) aimed at attracting diverse applicants to the NIH F32 postdoctoral fellowship funding opportunity. Other NEI efforts include collaborating with the Association for Research in Vision and Ophthalmology (ARVO) Diversity Initiatives Committee to develop a science video competition for high school students; expanding the summer Diversity In Vision Research and Ophthalmology (DIVRO) intern program to allow training throughout the year; and developing a program for underrepresented minorities to participate in three residency programs in the Washington DC area to facilitate training in vision clinical research. Other programs are under development.

INCOMING NEI DIRECTOR'S REMARKS – Dr. Michael Chiang, Oregon Health & Science University

Dr. Chiang thanked Dr. Tumminia for her leadership of the institute since Dr. Sieving retired. He is very much looking forward to becoming the NEI Director and getting to know the community. He provided an overview of his career pathway which included the following: his childhood in a family of engineers that shaped his worldview, his undergraduate education at Stanford University studying electrical engineering and biology, his summer jobs developing medical devices and computer programming to help patients, his participation in a program with a focus on health science and technology at Harvard medical school, his interest in computational science and artificial networks, his research and fellowship training in ophthalmology and vision sciences at Johns Hopkins and Columbia University and finally, his faculty position at the Oregon Health & Science University where he built a program in ophthalmic informatics. He also carried out research in retinopathy of prematurity and how artificial intelligence and image analysis relate to clinical care and genetic diseases.

He shared important lessons he has learned through these experiences including the fact that strong mentorship is highly important, especially for early investigators. NIH, and in particular, program directors, play a critical role in support of research career development. Identifying the right high-impact problem is sometimes as important as doing the work. Interdisciplinary

collaborations with smart people are inspiring and powerful. Translating scientific principles into care that helps patients is challenging but critically important. For example, after 10 years of research, they built an assistive artificial intelligence system for retinopathy of prematurity (ROP) that has received Breakthrough Status at the U.S. Food and Drug Administration (FDA).

BUDGET OVERVIEW – Ms. Karen Colbert, Budget Officer

Ms. Colbert provided a brief recap of estimated NEI spending for Fiscal Year (FY) 2020, which included $698.8 million for extramural research (grants, research and development contracts), $93.5 million for intramural research, and $31.1 million for research support (administrative, logistic, and scientific programs management). NEI's share for each funding mechanism is in line with funding trends for NIH as a whole.

The FY2021 federal budget has not been approved, which means the Federal Government is operating under a 72-day continuing resolution (CR). Under the CR, 19.73 percent of the FY2020 appropriation is available for NEI spending through December 11, 2020.

The President's Budget request includes significant cuts to NIH (7.2%) and NEI (9%). To accommodate this reduction, NEI would need to cut 125 research grants and approximately $64 million from extramural research. The upcoming election could have a significant impact depending on whether there is a change in administration and/or change of control in Congress. These transition years tend to be extremely unpredictable. For example, a "lame duck" Congress could attempt to clear the remaining spending bills or take a hands-off approach for the incoming 117th Congress to address when it takes office on January 3, 2021.

Ms. Colbert noted that Congress controls final funding amounts and has prioritized NIH research and passed budget increases in recent years. For example, the FY2020 President's Budget would have cut the NEI's budget by 14 percent below FY2019 level, but ultimately NEI received a 3.5 percent increase over 2019. She added that the latest House bill language included $404 million to fully fund the 21st Century Cures Act.

COUNCIL OF COUNCILS DEBRIEF – Dr. Russ Van Gelder, Member, NEI Council and NIH Council of Councils

Dr. Van Gelder summarized the September NIH Council of Councils (COC) meeting. Comprising one representative from each of the 27 NIH Institutes and Centers, the COC serves as Council for the Office of Research Infrastructure and Planning (ORIP) and conducts concept clearances for the Office of the Director's NIH Common Fund. Five concepts were approved at the September COC meeting: (1) Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science; (2) Nutrition for Precision Health/All of Us; (3) Cellular Senescence Network; (4) Gabriella Miller Kids First Pediatric Research Program; and (5) renewal of the Lasker Clinical Research Scholars Program.

Dr. Van Gelder outlined goals of each concept and NIH Institute/Center (IC) participation in each. NEI has joined the Smart Health initiative, and Dr. Grace Chen represents NEI on the

working group that will be developing the Cellular Senescence Network. NEI also participates in the Lasker Scholars program.

In 2020, NEI received close to $13 million from the Offices within the NIH OD. Early NEI involvement in Common Fund Initiative planning will increase the likelihood that NEI priorities are included. For example, the link between diet and macular degeneration suggests a role for NEI in the Nutrition for Precision Health initiative.

NEI STRATEGIC PLANNING UPDATE – Dr. Shefa Gordon, Director, Office of Program Planning and Analysis

Dr. Gordon presented the timeline and next steps for the NEI strategic planning process. He initially approached Council in 2018 with the concept of a strategic plan that addressed statutory requirements established in the 21st Century Cures Act passed by Congress in 2016. There was a need to communicate priorities to Congress and serve as a functional tool for the scientific community, NAEC, and NEI staff for charting the future of vision research.

This past year focused on gathering information. More than 250 researchers, patients, and caregivers responded to a Request for Information (RFI) that asked for input on significant scientific discoveries in vision research since 2012, new opportunities enabled by scientific discovery or technology development, and gaps in research, health, and quality of life that NEI should address. Dr. Gordon noted that Dr. Chiang served as co-chair for the Data Science panel. The draft panel reports are currently under review by NEI staff and the draft plan will be presented to council at the February meeting.

Dr. Gordon also noted that Congress expressed great interest in the 14 "Bold Predictions" included in the 2016 NIH strategic plan. These were stretch goals that might be achieved through intense scientific efforts if there was stable funding. NEI strategic planning panels were asked to submit a list of bold predictions that can be used as a visioning conclusion to the NEI strategic plan. The NEI Director will make the final selection of which to include.

NEI LOAN REPAYMENT PROGRAM (LRP) UPDATE – Dr. Neeraj Agarwal, Division of Extramural Science Programs

Dr. Agarwal presented an update on NEI's participation in the NIH Loan Repayment Program which aims to attract health professionals to careers in research by helping to pay off their educational debt. Eligibility criteria are similar to those for K awardees. Applicants must be U.S. citizens or permanent residents conducting patient-oriented clinical research and devote a minimum 50 percent research effort. In 2020, the program prioritized clinical, pediatric, and health disparities research. NIH grant support is not required.

The program repays educational loans backed by the U.S. government, accredited U.S. academic institutions, and commercial lenders. The program will not pay bad loans, personal loans, delinquent loans, or a spouse's educational loans. The program pays up to $50,000 in debt per

year plus accrued federal taxes and allows multiple renewals until loans are paid in full. Applications are peer reviewed.

Dr. Agarwal noted that NEI funded 93 percent of the applications it received in FY2020 for a total allocation of $1.8 million (27/29 applications funded). This rate is higher than the average for NIH as a whole. The next application deadline is November 15, 2020.

UPDATES: AUDACIOUS GOALS INITIATIVE (AGI) AND NIH REGENERATIVE MEDICINE INNOVATION PROJECT (RMIP) – Dr. Steven Becker, Associate Director, Office of Regenerative Medicine

Dr. Becker presented updates on NEI Audacious Goals Initiative (AGI) and the NIH Regenerative Medicine Innovation Project (RMIP). The AGI began in 2013 with a prize competition to solicit bold ideas that could catalyze vision research over the next 10–15 years with the ultimate goal of restoring vision through regeneration of the retina. NEI uses strategic funding to enlist multidisciplinary teams to develop the knowledge and technology necessary to achieve this goal. Applications for the most recent Funding Opportunity Announcement, Translation-Enabling Models to Evaluate Survival and Integration of Regenerated Neurons in the Visual System (RFA-EY-20-002), are due January 15, 2021.

The AGI includes three consortia: Functional Imaging, Discovery, and Translational Models. A symposium to highlight progress of the Functional Imaging Consortium projects was held in April 2019. The Discovery Consortium is identifying regenerative factors of potential importance for transplantation and project data are expected to be posted on a portal hosted by St. Jude Children's Research Hospital in 2021. NEI staff and AGI thought leaders will discuss AGI priorities and next steps at an AGI Road-mapping Meeting on November 9, 2020. Meeting outputs will include a roadmap and research priorities for the next three to five years and a publication summarizing AGI priorities.

The NEI 3-D Retina Organoid Challenge (3D ROC) is a prize competition to develop a physiologically competent 3-D retina organoid model that can be used for disease modeling or drug development. Review of the most recent submissions will be completed during November, followed by prize announcements in December 2020.

As part of the Age-related Macular Degeneration (AMD) Integrative Biology Initiative, the New York Stem Cell Foundation has generated 46 stem cell lines derived from AMD patients enrolled in the Age-Related Eye Disease Study (AREDS). These lines are available to academic and commercial entities. By the end of the year, an additional 27 patient-derived iPSC lines from AREDS2 patients as well as clinical information, image data, and genetic information from the AREDS2 cohort will be available.

The NIH RMIP aims to accelerate the field by supporting clinical research on adult stem cells. RMIP was started in 2016 when the 21st Century Cures Act authorized $30 million in federal awards to support clinical research using adult stem cells. Award recipients must match federal funds, and trials using an FDA-regulated product requiring IND/IDE authorization/approval must secure and provide evidence of that approval before NIH makes an award. Grantees will

provide representative samples of the source of the stem cells and the stem cell-derived product for in-depth independent characterization.

Recently announced FY2020 RMIP Clinical Project Awards include two vision studies: one on promotion of cornea regeneration and one for treatment of age-related macular degeneration using retinal pigment epithelium cells. Next steps for the RMIP include in-depth cell characterization using data standards and common data elements to maximize the value and interoperability of data in advancing research (awards expected by the end of 2020). Discussions are under way with the Clinical Data Interchange Standards Consortium (CDISC) to develop clinical data standards for regenerative medicine clinical indications in collaboration with FDA.

CONCEPT CLEARANCES

RE-ISSUE OF NEI COLLABORATIVE CLINICAL VISION PROJECT FUNDING OPPORTUNITY ANNOUNCEMENTS (FOAs) – Dr. Maryann Redford, Division of Extramural Science Programs

Dr. Redford proposed that the three clinical trial funding opportunity announcements that support the NEI Collaborative Clinical Vision Research Program and use the UG1 cooperative agreement mechanism be renewed. The three FOAs that are proposed for reissue are the Chair's Grant, the Coordinating Center Grant, and the Resource Center Grant. The Resource Center is generally used by imaging centers for large-scale clinical trials. The FOAs were revised to improve clarity.

A motion to approve renewal of the these three FOAs was made, seconded, and approved unanimously.

ELUCIDATING ANTERIOR SEGMENT INNERVATION: CELLS TO CIRCUITS – Dr. Houmam Araj, Division of Extramural Science Programs

Dr. Araj provided a rationale for the proposed Anterior Segment Innervation initiative which included the dearth of programs that support elucidation of anterior segment innervation, the robust response to the request for information (RFI) that sought input from the research community on opportunities and needs relevant to the function of the anterior segment of the eye, the small applicant pool for the Ocular Pain Program, the difficulty identifying a review panel that has expertise in both the pain and ocular aspects of proposed research, and the limited attention to the ocular pain circuit in the NIH Brain Research through Advancing Innovative Neurotechnologies® [BRAIN] Initiative's cell census network.

Current research indicates that the general circuitry underlying the neuro-regulation of sensation, tearing, and blinking are known. However, little is understood about the underlying molecular biology of ocular pain and how it is integrated with anatomy and function.

The proposed initiative would solicit proposals for detailed, integrated analysis of the anterior segment circuitry that incorporate two or more levels of analysis (i.e., anatomy, molecular, and functional measures). Selected projects would work as a consortium with an extramural scientific oversight committee and data repository. NEI will explore partnerships with other NIH Institutes and Offices including the National Institute on Dental and Craniofacial Research and the NIH Office of Research on Women's Health, given the higher prevalence of dry eye disease among women.

During the discussion, Council members suggested expanding the scope of the initiative to include photophobia and dry eye as a potential migraine trigger.

A motion to approve moving forward with the anterior segment circuitry concept was made, seconded, and approved unanimously.

ANTERIOR SEGMENT MICROBIOME - Dr. Lisa Neuhold, Division of Extramural Science Programs

Dr. Neuhold provided background information on microbiome research and the potential to capitalize on information and resources derived from the NIH Human Microbiome Project to study the ocular microbiome. Over the past 10 years, NEI has funded only 16 grants on the microbiome including only one focused on the ocular surface, two on the oral cavity, and three on the effects of the gut microbiome on eye diseases and conditions. She noted that 51 responses to the Anterior Segment Initiative RFI (previously mentioned by Dr. Araj) encouraged NEI to support more work on the effects of the microbiome on eye health and disease. The NEI strategic planning panel on immunology pointed to the need to characterize the microbiome in the gut and on the ocular surface to understand abnormalities that may contribute to eye diseases. This concept proposes to develop an open resource characterizing resident ocular microbial communities and factors they elaborate in healthy individuals.

Council members commented on the importance of distinguishing between ocular surface and intestinal microbiota. They recommended including resident viruses as well as bacteria and commented on potential artifacts associated with the use of various sequencing technologies. They recommended that NEI host a workshop on standardization of methodologies before further developing this concept.

A motion to approve moving forward with the anterior segment microbiome concept, including a workshop, was made, seconded, and approved unanimously.

GENERAL COUNCIL DISCUSSION

Dr. Anderson opened floor for general discussion by Council members.

One member reported that some young investigators have the perception that review panels do not seem to take the flexibilities on COVID-related delays seriously and have observed reviewers asking mentored career applicants to provide more preliminary data. Dr. Agarwal

responded that the NIH and NEI Scientific Review Officers are instructing reviewers to place less emphasis on preliminary data when evaluating applications.

Dr. Steinmetz noted that NEI is providing extensions for trainees in the last year of their awards to support their salaries while they are looking for a job.

Council members also discussed concerns about early stage and at-risk investigators and the possibility of extending support beyond their current funding period given how long the pandemic has lasted. Some institutions have extended the tenure clock by a year and may consider longer extensions. NIH policies also allow for extensions of ESI status. Dr. Anderson noted that the NIH flexibilities for extensions have been posted in the NIH Guide and that communication of these policies could be improved.

Another Council member pointed to the need to provide information technology advice to Institutional Review Boards as well as investigators who must conduct research remotely in an effective, safe way that is HIPAA compliant. Dr. Wiggs noted that this is ongoing issue and agreed to follow up with the NIH Office of Behavioral and Social Sciences Research for guidelines that have been developed for conducting research remotely using virtual technologies.

One council member reported that some trainees are having trouble obtaining letters of support from their mentors when labs are closed. Dr. Hoshaw responded that NEI Program Officers may not be aware that the letters have not been received so applicants should ask Drs. Hoshaw and/or Agarwal to contact the Center for Scientific Review Division of Receipt and Referral to find out if letters have been received.

ADJOURNMENT

Dr. Anderson thanked speakers, attendees, and Council members and adjourned the open session of the Council meeting at 1:10 PM.

ATTACHMENT A: NATIONAL ADVISORY EYE COUNCIL
(Terms end 11/30 of designated year)

Chair
Santa Tumminia, PhD
Acting Director
National Eye Institute
Bethesda, MD

Executive Secretary
Kathleen Anderson, PhD
Director, Division of Extramural Activities
National Eye Institute
Bethesda, MD

Members

Eduardo C. Alfonso, MD (2020)
Kathleen and Stanley J. Glaser Chair in Ophthalmology
Director, Bascom Palmer Eye Institute
University of Miami Miller School of Medicine
Miami, FL

Jose-Manuel Alonso, MD, PhD (2021)
Professor in Biological and Vision Sciences
State University of New York, College of Optometry
New York, NY

Teresa Borrás, PhD (2023)
Professor and Director of Research
Department of Ophthalmology
University of North Carolina School of Medicine
Chapel Hill, NC

James Coughlan, PhD (2023)
Senior Scientist
Smith-Kettlewell Eye Research Institute
San Francisco, CA

Katia Del Rio-Tsonis, PhD (2022)
Professor
Department of Biology
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Thomas W. Gardner, MD (2023)
Professor
Department of Ophthalmology and Visual Science
University of Michigan, School of Medicine and Kellogg Eye Center
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Mary Elizabeth Hartnett, MD, FACS, FARVO (2022)
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Renu A. Kowluru, PhD (2023)
Professor
Department of Ophthalmology, Visual and Anatomical Sciences
Wayne State University
Detroit, MI

Carol Ann Mason, PhD (2020)
Professor
Dept. of Pathology and Cell Biology, Neuroscience, and Ophthalmology
Columbia University, Zuckerman Institute
New York, NY

Mary Ann Stepp, PhD (2021)
Professor of Anatomy and Regenerative Biology
The George Washington University
School of Medicine and Health Sciences
Washington, DC

Benjamin Teller, OD (2022)
Principal and Owner
Eye Rx
Chevy Chase, MD

Russell Van Gelder, MD, PhD (2020)
Professor and Chairman
Department of Ophthalmology
Director, UW Medicine Eye Institute
University of Washington
Seattle, WA

Ex Officio
Azar II, Alex M.
Secretary
U.S. Department of Health and Human Services
Washington, DC

Collins, Francis S., Ph.D., M.D.
Director
National Institutes of Health
Bethesda, MD

CERTIFICATION

These minutes were submitted for the approval of the Council. All corrections or notations were incorporated. We hereby certify that, to the best of our knowledge, the foregoing minutes and attachment(s) are accurate and complete.

Kathleen C. Anderson -S Digitally signed by Kathleen C. Anderson -S
Date: 2021.02.18 11:54:19 -05'00'

Kathleen C. Anderson, PhD **Date**
Executive Secretary, National Advisory Eye Council
National Eye Institute

Santa Tumminia -S Digitally signed by Santa Tumminia -S
Date: 2021.02.23 14:36:59 -05'00'

Santa Tumminia, PhD **Date**
Acting Chair, National Advisory Eye Council
Acting Director, National Eye Institute