

**National Cancer Advisory Board (NCAB)
Subcommittee on Planning and Budget**

**August 31, 2021
2:10 p.m.–3:10 p.m. EDT
Virtual Meeting**

SUMMARY

Subcommittee Members

Dr. Anna D. Barker, Chair
Dr. Peter Adamson
Dr. Deborah Bruner
Dr. Yuan Chang (absent)
Dr. Andrea Hayes-Jordan (absent)
Dr. Scott W. Hiebert
Dr. Nikan Khatibi (absent)
Dr. Timothy Ley
Mr. Patrick McGarey, Executive Secretary
Dr. Margaret R. Spitz

Other Participants

Dr. Francis Ali-Osman, NCAB
Dr. Laura Brockway-Lunardi, NCI
Dr. Gwen W. Collman, NIEHS Ex Officio
Alternate
Dr. Howard J. Fingert, NCAB
Dr. Satish Gopal, NCI
Dr. Paulette S. Gray, NCI
Dr. Douglas Lowy, NCI
Ms. Anne Lubenow, NCI
Ms. Thu Nguyen, NCI
Dr. Diane Palmieri, NCI
Dr. Electra Paskett, NCAB
Mr. Ricardo Rawle, NCI
Dr. Norman E. Sharpless, NCI
Dr. Susan Thomas Vadaparampil, NCAB
Ms. Joy Wiszneauckas, NCI
Dr. Amanda Cennane, The Scientific
Consulting Group, Inc., Rapporteur

Introduction

Dr. Anna D. Barker, Chief Strategy Officer, Ellison Institute for Transformative Medicine, University of Southern California

Dr. Anna D. Barker, Subcommittee Chair, called the meeting to order at 2:11 p.m. EDT. In her opening remarks, Dr. Barker noted that the previous Subcommittee meeting focused on the changes in the NCI budget since 2017. She explained that the budget for fiscal year (FY) 2022 still is being determined. A budget increase of \$174 million (M) has been proposed, 2.7 percent greater than the previous year. Dr. Barker noted that this budget is insufficient for maintaining paylines.

Dr. Barker outlined the meeting topics, which include the Annual Plan (AP) for FY 2023, as well as budgetary trends. She explained that in the past, the bypass budget reflected an aspirational estimate of financial needs to achieve a number of research priorities which meant that for years it far exceeded the annual budget. This gap between budgets has decreased in recent years – apparently to the benefit of the NCI. She noted that a recent article in *Forbes* discussed the rapid development of vaccines and therapeutics for COVID-19, in regard to the application of these principles for developing new cancer therapies. She emphasized that historically these types of articles do not consider that the desired outcome is not feasible unless the NCI receives sufficient resources and urged the Subcommittee members to suggest strategies to increase the NCI's budget.

Annual Plan for Fiscal Year 2023

Dr. Diane Palmieri, Deputy Director, Center for Research Strategy, NCI, and Dr. Laura Brockway-Lunardi, Health Science Analyst, Center for Research Strategy, NCI

Dr. Diane Palmieri, Deputy Director, Center for Research Strategy, NCI, presented a preview of NCI's FY 2023 AP and Budget Proposal. She first reminded the participants that the National Cancer Act of 1971 established the procedure for submitting NCI's annual budget (i.e., the bypass budget). The Act also implemented key NCI programs that still are in effect today (e.g., NCI Cancer Centers Program, NCAB, President's Cancer Panel). This year marks the 50th anniversary of the signing of the Act; a campaign highlighting progress and contributions over the years has been launched through the NCI website. The AP and Budget Proposal looks toward the next 2 years. It includes a Professional Judgement Budget (PJB), which communicates NCI's best professional judgment on the optimal funding needed to achieve the rapid progress against cancer. The PJB is packaged with the messages from the NCI Director and other representatives into an "At a Glance" document, which is available on the NCI website. The AP represents NCI's annual dynamic strategic plan and outlines NCI's priorities and scientific opportunities for a specific fiscal year. Dr. Palmieri noted that the 21st Century Cures Act calls for all NIH Institutes to publish strategic plans regularly using a common template.

The FY 2022 AP was the first to be fully virtual and made available on the NCI website. The NCI Office of Communications and Public Liaison had a goal to increase awareness. Visits to the AP webpage increased by more than 50 percent compared to the previous year, and the At a Glance document was downloaded more than 1,900 times, a 70 percent increase from the previous year. Visits to the webpage were driven primarily from emails sent to grantees. Dr. Palmieri emphasized the value of improving the research community's access to the AP.

The following scientific priorities are highlighted in the 2022-23 AP: understanding the mechanisms of cancer; preventing cancer; detecting and diagnosing cancer; treating cancer; advancing public health in cancer; strengthening the cancer research enterprise (e.g., workforce and infrastructure); and understanding, preventing, and mitigating cancer disparities. The NCI also identifies scientific opportunities that reflect the current state of the field. In FY 2021, scientific opportunities included the immune system and microbiome, artificial intelligence, and implementation science. FY 2022 scientific opportunities include cancer drug resistance, molecular diagnostics for cancer treatment, obesity and cancer, and survivorship. In FY 2023, scientific opportunities will include tumor dynamics (i.e., predicting cancer's trajectory using tumor atlases), computer-based drug design (i.e., advancing the discovery of new cancer medicines), precision prevention (i.e., predicting and intercepting cancer), and clinical trials (i.e., bringing cancer research to all possible participants). She emphasized that these opportunities are interconnected and highlight the need for collaboration among investigators.

Dr. Palmieri next outlined trends in the base appropriation, PJB proposals, and the budgets from FY 2020 to FY 2023. The PJB budget proposal for FY 2023 includes a budget increase of \$1.2 billion (B). The total proposed budget is \$7.8 B. The proposal accounts for inflation and includes an increase to the Research Project Grants (RPG) budget for R01 grants, as well as \$50 M for the Childhood Cancer Data Initiative. The final year of authorized Cancer MoonshotSM initiative funding is listed as a separate line item. Dr. Palmieri emphasized that the AP underscores NCI's commitment to investigator-initiated research. The NCI has set a goal to reach the 15th percentile for the R01 payline by FY 2025. The proposal also includes funds to increase the early-stage investigator payline and to pay noncompeting grants at 100 percent of their negotiated levels.

The AP also includes stories from cancer patients and researchers. The featured individuals include Marilyn, a patient who is participating in an NCI Community Oncology Research Program (NCORP)

clinical trial and is communicating with her cancer care team via telemedicine practices during the COVID-19 pandemic, and Joe, who participated previously in a prostate cancer screening study at the NIH Clinical Center. Additionally, four investigators discuss how their personal experiences have strengthened their passion for their research; two of the investigators are cancer survivors.

Discussion

Dr. Barker asked about strategies for addressing research questions on cancer survivors. Dr. Palmieri responded that the Cancer MoonshotSM initiative has supported several efforts in this area; these networks and partnerships can be developed further after the funding ends.

Dr. Barker asked the NCI Director, Dr. Sharpless, about NCI's approach for addressing the issues surrounding recent diagnostic assays used for detecting a large number of cancers via a single liquid biopsy. Dr. Sharpless emphasized the importance of early cancer detection but noted that the possibility of overdiagnosis and overtreatment should be acknowledged and agreed that these assays are already creating a number of complex questions. Large-scale, long-term clinical trials will be required to address these questions, and standards of care should be considered. Dr. Sharpless emphasized the importance of drawing attention to this issue. Dr. Barker suggested that at some point this would be an excellent topic for a presentation and general discussion with the NCAB.

Dr. Barker remarked that the proposed budget is aspirational but realistic, based on the focus areas highlighted for FY 2022.

Dr. Electra D. Paskett spoke on the need for a greater focus on population (e.g., behavior) and implementation science. She emphasized the value of these efforts for cancer research (e.g., for cervical cancer). Dr. Palmieri responded that implementation science was addressed as a focus area in the FY 2021 AP. Dr. Palmieri also noted that the Office of Research on Women's Health is highlighting cervical cancer in a conference in fall 2021; a request for information has also been published. Dr. Paskett stated that she has been invited to participate in this effort.

Dr. Paskett underscored the importance of population science in research. Dr. Barker agreed and noted the difficulty of addressing all relevant topics every year in the AP. Dr. Paskett suggested developing a summary of focus areas from the past 5 years. In response to a request from Dr. Sharpless, Dr. Palmieri explained that the focus areas are determined by soliciting ideas across the NCI and conducting focus groups with subject-matter experts. Input from the public also is considered. A list of potential areas is developed, presented to NCI leadership, and a list of three or four topics are selected for inclusion in the AP.

Budget Update

Mr. Patrick McGarey, Associate Director for Finance and Legislation, NCI

Mr. Patrick McGarey, Subcommittee Executive Secretary, presented on NCI's budget, highlighting current developments and budgetary trends. He presented on trends in NCI appropriations between FY 2015 and FY 2021. The budget for FY 2022 is pending in Congress and the FY 2023 budget is still being developed. The FY 2022 budget was delivered to Congress on May 28, 2021, and legislation containing the NCI budget was passed by the House of Representatives on July 29, 2021. The measure is awaiting action in the Senate. The proposed budget includes a \$424 M increase for the NCI, 6.6 percent greater than the previous year. If enacted as law, the House budget increase would be the second greatest since FY 2014. Senate action and final agreement on the FY 2022 budget is pending.

During the NCAB Meeting, Dr. Douglas Lowy will present a breakdown of NCI's total budget appropriations. Mr. McGarey displayed a comparison of Dr. Lowy's analysis for FY 2019 and FY 2020.

He emphasized the symmetry in spending between the 2 years, with a percentage difference of less than 1 percent between categories. He also noted that the FY 2022 comparison chart will be available after the fiscal year ends in September 2021. RPGs represent 43 percent of spending. An analysis of RPG spending also demonstrated consistency between years. Mr. McGarey explained that Cancer MoonshotSM funding decreased by \$205 M in FY 2017. Congress responded in FY 2020 with a \$296 M increase in NCI funding, and they also restored the \$205 M, so the effect for NCI non-Moonshot programs was a \$501 M increase. This situation will reoccur after FY 2023, the final year of Cancer MoonshotSM funding, but whether Congress will reprise its increase to offset the Moonshot reduction remains to be seen.

The President's Budget proposed \$6.5 B for Advanced Research Projects Agency for Health (ARPA-H); the House passed a bill in July 2021 approving \$3 B. The bill is under consideration by the Senate. Mr. McGarey conveyed comments by President Joseph Biden and NIH Director Dr. Francis S. Collins in support of ARPA-H. He also directed the participants to public statements and media reports highlighting ARPA-H.

Discussion

Dr. Barker asked about the future of funding after Cancer MoonshotSM ends. Dr. Sharpless stated that he is hopeful for off-setting future increases but noted that funding trends are challenging to predict. Dr. Dinah Singer is leading an analysis of this situation together with several others in NCI, which will be discussed at a later NCAB meeting.

Dr. Barker asked whether the proportion of NCI spending would change if the total budget was increased substantially. Dr. Sharpless stated that a large influx would likely lead to changes in spending. Dr. Sharpless noted that the RPG pool has grown at an accelerated rate. The Centers and Specialized Programs of Research Excellence (SPOREs), in contrast, have not grown; since the RPG pool has represented a greater priority in the past years. Dr. Sharpless stated that if resources were available, the NCI could provide additional support for centers and especially SPOREs. Funding for the SPOREs program has decreased significantly in recent years.

Dr. Barker asked whether the NCI is funding new Cancer Centers. Dr. Sharpless estimated that the NCI funds a new Center every 1 to 2 years. Many of the awards to existing centers have increased over the years. Dr. Sharpless noted recent efforts to match Center funding with productivity. The process has been successful but has cost more than was planned initially. Dr. Barker emphasized the importance of these awards to enhance NCI's translational research enterprise; she stated that resources from ARPA-H could serve to leverage these capabilities.

Dr. Margaret R. Spitz asked how training is allocated. Dr. Sharpless explained that training funds are allocated among various categories across the budget. Dr. Barker noted that this area represents a significant challenge for the NC and new resources are sorely needed. Dr. Spitz underscored the importance of training within the area of population science.

Suggestions for Future Consideration by the Subcommittee

Mr. Patrick McGarey

Mr. McGarey compiled potential areas for future consideration by the Subcommittee. The first topic involves analysis of NCI program announcements (PAs) and PAs with special receipt, referral, and/or review (PARs) (e.g., trends over time, ratios of PA and PAR spending within NCI's RPG pool). The second topic involves cost modeling related to NCI's "15 × 25" goal of achieving and sustaining the 15th percentile for R01 awards by FY 2025 (e.g., range of variables and potential costs, cost to sustain goal).

Adjournment

Dr. Barker thanked the attendees and invited them to submit additional topics for future discussion to herself and/or to Mr. McGarey. She adjourned the Subcommittee meeting at 3:10 p.m. EDT.

Dr. Anna D. Barker
Chair

Date

Mr. Patrick McGarey
Executive Secretary

Date