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NATIONAL CANCER ADVISORY BOARD
AD HOC WORKING GROUP ON EXTRAMURAL RESEARCH CONCEPTS AND PROGRAMS

Summary of Meeting
February 6, 2026

Conference Room TE406, East Wing, Shady Grove Campus
National Cancer Institute
National Institutes of Health
Bethesda, Maryland

NATIONAL CANCER ADVISORY BOARD
AD HOC WORKING GROUP ON EXTRAMURAL RESEARCH CONCEPTS AND PROGRAMS
BETHESDA, MARYLAND
Summary of Meeting
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The National Cancer Advisory Board (NCAB) convened its first Ad hoc Working Group (WG) on Extramural Research Concepts and Programs meeting on February 6, 2026. The WG members attended in person and virtually, and National Cancer Institute (NCI) staff attended in Conference Room TE406, East Wing, Shady Grove Campus, National Institutes of Health (NIH), Bethesda, MD. The meeting was open to the public on Tuesday, February 6, 2026, from 9:00 am to 4:00 pm. The WG Chair, Dr. Cornelia M. Ulrich, Chief Scientific Officer and Executive Director, Comprehensive Cancer Center, Huntsman Cancer Institute, University of Utah, Chaired the session.

WG Members

Dr. Cornelia M. Ulrich, (Chair)
Dr. Suzanne J. Baker
Dr. Smita Bhatia
Dr. Otis W. Brawley
Dr. Andrew T. Chan
Dr. Suzanne D. Conzen
Dr. Gloria D. Coronado
Dr. Christopher M. Counter
Dr. Edna Cukierman
Dr. Christina N. Curtis
Dr. S. Gail Eckhardt
Dr. Christopher Flowers
Dr. Christopher R. Friese
Dr. Jon C. D. Houtman
Dr. Chanita Hughes-Halbert
Dr. Trey Ideker
Dr. Patrick J. Loehrer
Dr. Ana Maria Lopez
Dr. Jasmine A. McDonald
Dr. Ruben A. Mesa
Dr. Karen M. Mustian
Dr. Lisa A. Newman
Dr. Raymond U. Osarogiagbon
Dr. Raphael E. Pollock
Dr. Suresh S. Ramalingam
Dr. Lewis R. Roberts
Dr. Charles M. Rudin
Dr. John Sampson
Dr. Ali Shilatifard
Dr. Samuel L. Volchenboum
Dr. Robert H. Vonderheide Dr. Ashani T. Weeraratna
Dr. Max S. Wicha
Dr. George Wilding
Dr. Karen M. Winkfield

Members, Scientific Program Leaders, National Cancer Institute, NIH

Dr. Anthony Letai, Director, National Cancer Institute (NCI)
Dr. Douglas R. Lowy, Deputy Director, NCI
Dr. Dinah S. Singer, Deputy Director for Scientific Strategy and Development, NCI
Dr. Samantha L. Finstad, Program Director, Office of the Director, NCI
Dr. Stacy Adams, Director of Cancer Research Partnerships at the FNIH
Dr. Gregory Adams, Program Director, Center to Reduce Cancer Health Disparities (CRCHD) , NCI
Dr. Hector Aguila, Acting Director, CRCHD, NCI
Dr. Xiaozhong Bao, Health Scientist Administrator, Division of Extramural Activities (DEA), NCI
Dr. Cheryl Cero, Program Director, Division of Cancer Biology (DCB), NCI
Dr. David Chambers, Deputy Director of Implementation Sciences, Division of Cancer Control and Population Sciences (DCCPS), NCI
Dr. Scott Chen, Branch Chief, DEA, NCI
Dr. Jin Chen, IND Manager, Office of the Clinical Director, NCI
Dr. Kelly Crotty, Program Director, Center for Strategic Scientific Initiative, NCI
Dr. Kamal Datta, Health Scientist Administrator, NCI
Dr. Gary Ellison, Acting Director, DCCPS, NCI
Dr. Suzanne Forry, Program director, Division of Cancer Treatment and Diagnosis (DCTD), NCI
Ms. Elizabeth Freedman, Writer/Editor, Division of Cancer Prevention (DCP), NCI
Mr. John Geiglein, IT Specialist, Center for Biological Informatics and Information Technology, NCI
Dr. Satish Gopal, Director, Center for Global Health, NCI Toby Hecht, Deputy Director, DCTD, NCI
Dr. Joe Gray, Senior Advisor, NCI, Professor Emeritus, OHSU and UCSF
Dr. Brandy Heckman-Stoddard, Chief, DCP, NCI
Ms. Mary Holohan, Office of Government and Congressional Relations, NCI
Dr. Zhang-Zhi Hu, Program Director, DCTD, NCI
Dr. Amy Leblanc, Senior Scientist, Center for Cancer Research, NCI
Dr. Cecilia Lee, Program Director, DCP, NCI
Dr. Onn Wolf Lindwasser, Deputy Director, Coordinating Center for Clinical Trials, NCI
Dr. Lori Minasian, Deputy Director, DCP, NCI
Dr. Sandra Mitchell, Senior Scientist and Program Director, DCCPS, NCI
Ms. Erica Moshtahedian, Chief Policy Advisor, NCI
Mr. Weston Ricks, Director, Office of Budget and Finance, NCI
Dr. Anju Singh, Program Director, DCTD, NCI
Dr. Connie Sommers, Acting Chief, DCTD, NCI
Dr. Shamala K. Srinivas, Associate Director, DEA, NCI
Dr. Peter Ujhazy, Deputy Director, Translational Research Program, DCTD, NCI
Ms. Vanessa White, Program Officer, DCP
Ms. Crystal Wolfrey, Director, Office of Grants Administration, NCI
Dr. Rihab Yassin, Chief, DCB, NCI
Dr. Nastaran Zahir, Acting Director, Center for Cancer Training, NCI

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I. Call to Order and Opening Remarks – Dr. Cornelia Ulrich

Dr. Cornelia Ulrich called to order the NCAB *Ad hoc* WG on Extramural Research Concepts and Programs meeting. She welcomed attendees and expressed appreciation to both participants and National Cancer Institute staff for organizing the meeting despite recent challenges. Dr. Ulrich emphasized confidentiality requirements for all materials and discussions, and instructed members to disclose and recuse themselves from any conflicts of interest. Public input was to be submitted in writing within ten days for consideration to Dr. Samantha Finstad, Program Director, Office of the Director, National Cancer Institute (NCI). Dr. Ulrich called Board members' attention to the future meeting dates listed on the agenda.

II. NCI Director's Charge to the Working Group – Dr. Anthony Letai

Dr. Anthony Letai explained that, due to recent NIH process changes, the WG had assumed some of the advisory responsibilities previously held by the NCI Board of Scientific Advisors. The group was tasked with advising the National Cancer Advisory Board on scientific program policy, progress, and future directions for extramural research, including reviewing and recommending research concepts and funding mechanisms.

He emphasized that members' recommendations would directly influence cancer research priorities and resource allocation and encouraged them to focus on emerging opportunities and urgent needs. He clarified that their role was scientific, not related to public policy, and included evaluating program effectiveness and prioritizing new ideas.

He noted that Dr. Doug Lowy would provide updates in his absence and expressed appreciation for the members' time and expertise. He concluded by highlighting the importance of their contributions to advancing cancer research and improving patient outcomes, and said he looked forward to meeting them at a future session.

III. NCI Principal Deputy Director Update – Dr. Douglas R. Lowy

Dr. Douglas R. Lowy welcomed attendees, thanked Congress for passing the budget, and expressed appreciation for participants' efforts. He emphasized the importance of the group's guidance in shaping cancer research priorities and resource use, encouraged careful evaluation of proposed initiatives, and acknowledged staff who helped prepare the presentation. He concluded by noting the presentation would cover the budget, grant policy updates, and how the group could contribute.

NCI Budget. Dr. Lowy stated that NCI had received a 1.8% budget increase and expressed gratitude to Congress for the funding. He noted that despite the increase, NCI's purchasing power had declined by about 8% since 2003. Dr. Lowy noted that despite this challenge, the institute remained committed to making as many awards as possible.

Grant Review and Grant Policy Updates. Dr. Lowy explained updates to the grant review process, noting that application review had been centralized under NIH's Center for Scientific Review, including many applications previously handled by NCI. He stated that paylines were no longer used, though peer review remained essential, and that funding decisions would consider scientific merit, balance across research areas and alignment with administration priorities.

Dr. Lowy described changes to funding opportunity processes, including a reduction in the number of opportunities and increased oversight, which had added complexity and time. He also introduced “Highlighted Topics” as a newer, more streamlined approach to identifying research priorities and emphasized the need for clear communication with the extramural community. Dr. Lowy noted that the WG’s recommendations would be reported to the National Cancer Advisory Board for final decisions.

WG Contribution. Dr. Lowy explained that in addition to making recommendations about the concepts, the WG could provide feedback on processes, suggesting improvements, and serving as ambassadors to communicate changes. He emphasized the importance of member input as processes evolved, summarized key points about the budget, new award processes, and funding mechanisms, and concluded that the group’s primary role was to review concepts and provide candid recommendations.

Discussion: In response to Dr. Wicha’s question about impact on forward funding, Dr. Lowy responded that the Bill limits forward funding to 2025 level, but its interpretation is unclear. While there may be flexibility, NCI’s goal is to maximize new awards. In response to questions about estimation of success rate and the criteria that the WG should consider while evaluating concepts, D. Lowy clarified that although peer review remains critical, funding decisions are not decided by paylines. While the goal is to fund most meritorious applications, decisions will be made based on innovation, programmatic priorities, and balance across scientific areas. Responding to Dr. Bhatia’s question about transparency about strong applications that may not be funded, Dr. Lowy explained that NCI staff will communicate to applicants to help understand the decisions, consistent with NCI’s existing practice of open communication. Dr. Ulrich asked if Principal Investigator’s current funding may be a criterion for funding decisions, Dr. Lowy said that specific criteria are not set yet, but heavily funded investigators may have harder time receiving additional grants. Responding to Dr. Newman’s question about health disparities and global cancer research, Dr. Lowy responded that health disparities research remains a strong priority, with a clear distinction from DEI, focusing on correctable differences in outcomes and access to care. Dr. Ulrich enquired how the limits in the number of NOFOs will affect the essential infrastructure funding. Dr. Singer responded that process is still evolving, with ongoing discussions with NIH to clarify needs and priorities, and input from the WG is encouraged.

III. Division of Extramural Activities Acting Director’s Remarks–Dr. Dinah Singer

Dr. Dinah Singer welcomed the WG members and acknowledged Dr. Paulette Gray’s contributions to the NCI. She explained that the WG was created to fill the gap left by the discontinuation of Board of Scientific Advisors, as a key source of feedback to NCI from the external scientific community. The group is being asked to help assess progress, guide future cancer research directions, and advise on funding concepts and initiatives. NIH policies now limit the number of new funding opportunity announcements NCI can make. The decision of which initiatives need to be pursued becomes important and the feedback from the WG and their guidance is significant.

Discussion: In response to the question from Dr. Vonderheide about how the reduction on the number of NOFOs was determined, Dr. Singer clarified some NOFOs published with common purposes such as R01 or R21 were combined to be published as RP1 and that no significant scientific funding opportunity has been eliminated. Responding to the charge of the WG, Dr. Singer explained that the expectation from the WG is to receive feedback and comments on the merits of the individual concepts without comparing them to each other for NCI leadership’s consideration. Dr. Lowy added that the scope of the WG is to identify scientific gaps that need

progress. In response to the question about the termination of R35 grants, Dr. Singer said that discussions are ongoing about R35 funding opportunity. To the question about how the feedback from the work group will be documented, the response was that meeting minutes will be made available, the group can make formal recommendations, and votes from the WG on concepts and recommendations made will go to the NCAB. Members suggested a presentation about NCI's portfolio analysis. Responding to the NOFO process, Dr. Singer clarified that the process for publishing NOFOs is extensive due to a multi-level approval process.

IV. Orientation

Dr. Samantha Finstad, the Executive Secretary, oriented the members about their roles and responsibilities in the WG.

The role of the WG is to advise NCAB for stimulating research in emerging and underfunded areas guided by gaps in NCI portfolio and identify high-priority areas. Reissuance of existing NOFOs require the evaluation process as a new concept. The WG is not responsible for portfolio balancing. The types of concepts will be for (1) Request for Application (RFA) with targeted scientific goals with set-aside funds, (2) Program Announcement (PAR) for research in defined areas without set-aside funds, and (3) Request for Proposal (RFP) for contracts for specific research activities with deliverables with set-aside funds.

The concepts can span various areas of research in cancer biology, prevention, detection & diagnosis, treatment, and training and research infrastructure. Each concept is assigned to three members of the WG who meet the Program Official in advance of the WG meeting to clarify any questions they may have about the assigned concept. The assigned reviewers draft a short assessment. At the WG meeting, the Program Official will make a presentation, and the assigned members will evaluate the concept followed by an open discussion of the concept by its members. The WG will vote to recommend approval/disapproval/deferment of the concept to NCAB. The WG Executive Secretary will draft a short report that will be presented to the NCAB by the WG Chair.

V. PAR Concept
Early-onset Cancers: Investigating Etiology, Mechanisms, and Early Detection Strategies

Dr. Rihab Yassin, Chief, Cancer Cell Biology Branch, Division of Cancer Biology, NCI, presented a new concept for a program announcement (PAR) for Early-Onset Cancers: Investigating Etiology, Mechanisms, and Early Detection Strategies.

Early-onset cancers affect individuals under 50, excluding childhood cancers. She highlighted growing concerns due to increasing incidence rates, particularly in colorectal cancer. Although overall increases since 1990 are relatively small (around 1–3% depending on cancer type), projections suggest rising rates and mortality.

The causes of early-onset cancer are not fully understood but may involve environmental exposure, lifestyle factors, biological differences, and possibly premature aging. These cancers may be more aggressive or diagnosed later because younger individuals are not routinely screened, leading to delayed detection.

The goal of the initiative is to better understand the etiology behind the rising incidence of early-onset cancers and improve early detection. Key research areas are to understand (1) what modifiable exposures of non-hereditary early-onset cancers and how do they vary by

demographics or genetic factors? (2) What are the biological mechanisms that underlie the increase in early-onset cancers? (3) How can we effectively identify those at risk for developing early-onset cancers.

Current research efforts (e.g., NCI-funded projects) have focused mainly on colorectal and breast cancers, but evidence suggests many other cancers are increasing in younger populations and remain understudied and underrepresented. Future efforts should expand to these areas and integrate both mechanistic and clinical research approaches.

The proposed initiative emphasizes multidisciplinary research approaches to study early-onset cancer, including stem cell biology, diverse population representation, and integration of clinical and methodological studies. It builds on prior NCI efforts, noting that earlier funding opportunities (e.g., 2020 Provocative Question initiative) had limited uptake, but recent advances in methods and increased interest have strengthened the field. In 2025, a call for NCI administrative supplements in this area of research received strong response (of the 55 applications, 25 funded).

The program will use R01 and R21 mechanisms to gradually develop the field, funding a small number of high-quality projects (approximately 1–3 awards per round). It is proposed as a 3-year initiative with potential renewal depending on outcomes.

The proposed PAR will encourage studies that span from preclinical to population-based studies as well as those that combine methodologies to investigate windows of susceptibility and biological mechanisms to maximize information. Key priorities include fostering transdisciplinary collaboration across fields, incorporating diverse expertise, and refining review criteria. The initiative will specifically focus on early-onset cancers and exclude applications on hereditary cancers or rare germline genetic variations with high penetrance, which are funded through other programs. While no cancer types are strictly excluded, there is interest in broadening research beyond commonly studied cancers including rarer cancers. Finally, the effort reflects nearly two years of planning, with readiness driven by advances in technology, data sharing, and research methodologies, positioning the field for meaningful progress.

Discussion: Dr. Gloria Coronado acknowledged that early-onset cancer is clearly an emerging and high-priority public health problem. It was emphasized that the concept is relevant not only to common cancers like colorectal and breast, but also to rarer cancers such as uterine and pancreatic cancer. Dr. Coronado agreed that the initiative fills an important gap and has strong public and scientific interest.

Dr. Shilatifard suggested broadening the scientific scope beyond microbiome work alone. They argued for a more comprehensive view that includes genomics, epigenetics, environmental exposures, chromatin/transcription biology, community context, and lifespan effects. Drs. Ulrich and Mesa stressed the importance of including survivorship research in a future effort, since younger cancer survivors face unique long-term and financial burdens.

Dr. Bhatia discussed the overlap with existing adolescent and young adults (ages between 15 and 39) cancer research and wanted to know whether the initiative to be clearly distinct, while still allowing overlap where appropriate. There was also discussion about ensuring the initiative does not unintentionally exclude key areas such as breast cancer, especially given longstanding disparities and unanswered questions in younger women.

Data sharing and secondary use of biospecimens were also emphasized. Speakers wanted stronger language encouraging harmonized, shareable data and consent for broader downstream use, especially for rare cancers and cohort-based studies.

Finally, the group discussed funding structure. Dr. Yassin reiterated that the program would likely support only a small number of awards at first, with the goal of building the field gradually. There was also agreement that some topics, like survivorship, may be better handled in a companion initiative rather than this one, which was encouraged. The session ended with a vote on the concept.

Motion: A motion to approve the new concept for a PAR from DCB, DCP, CRCHD, and CSSI entitled “Early-Onset Cancers” was approved unanimously.

Palliative Care Research Across the Lifespan: Leveraging the Palliative Care Consortium

Dr. Sandra Mitchell, Program Director, Outcomes Research Branch, Division of Cancer Control and Population Sciences (DCCPS), NCI, presented a trans-NIH, multi-component initiative on palliative care across the lifespan, a PAR, led by the National Institute on Aging (NIA) with participation from NCI and other institutes. The goal is to generate new scientific knowledge, to accelerate implementation of palliative care, and to support workforce and career development. Palliative care is defined as whole-person care (addressing physical, emotional, spiritual, and mental needs) that can be delivered at any age, at any stage of illness, alongside curative treatment.

Of strategic importance is the FY 2024 appropriation bill that called for a wide variety of NIH initiatives focused on palliative care research, training, and dissemination and implementation. This initiative expands beyond existing NIH investments by emphasizing implementation science, data sharing and harmonization, research career development, engage healthcare settings to support palliative care, and enables cross-disease and cross-institute collaboration, while allowing NCI to maintain a cancer-specific focus.

A central component is the Advancing the Science of Palliative Care Research across the Lifespan (ASCENT) Consortium (U54), a multi-institution effort designed to advance research and methodology in palliative care, build national research infrastructure and shared resources, support career development and pilot studies, engage healthcare systems, communities, patients, and caregivers, and promote dissemination and implementation of findings.

The consortium operates through three pillars: (1) Building a collaborative research community to inform research priorities, study design, and dissemination strategies; (2) Conducting developmental/pilot projects and training; and (3) Disseminating knowledge and supporting implementation to improve care quality, access, and outcomes.

Two main funding pathways were described: (1) Pilot projects and scholar awards (ASCENT-linked) for short-term funding (1–2 years), focused on early-career researchers, with emphasis on data sharing and common data elements. (2) Research scholars award for 2-year funding of scholars with doctoral degree, who have faculty position and less than 10 years out of post-doctoral/fellowship.

The PAR is expected to be released in March 2026 with a focus on palliative care research across the lifespan that includes both interventional and observational studies with goals to address research gaps in palliative research, scale promising interventions into real-world

settings, and leverage consortium infrastructure. Outcomes will include measurable health outcomes, patient-reported outcomes, and/or health-related behaviors. The projects funded through this PAR will integrate into the ASCENT ecosystem and contribute data and findings. NCI's sign-on supports cancer-specific palliative care research on people with cancer and their caregivers and families. This leverages NCI's investment in the trans-NIH ASCENT Consortium.

Discussion: Dr. Lopez recommended strengthening methodological innovation, including new analytic approaches, improved measurement strategies, and cross-disciplinary learning (e.g., from aging research into cancer). Responding to Dr. Ramalingam's question, Dr. Mitchell explained that the portfolio currently leans somewhat toward interventional and mechanistic studies, but they expect the balance between interventional and noninterventional work to become clearer as applications are submitted. They also emphasized that the PAR includes a mechanistic component and that pilot awards and scholar projects may help shape future funding priorities.

Dr. Vonderheide asked whether "palliative care across the lifespan" should also encompass broader "whole-person care," including issues like pregnancy, cardiac care, gynecologic health, and psychiatric health in cancer patients and survivors. Dr. Mitchell responded that those topics are important but may exceed the current scope and could be better addressed in future funding opportunities or a survivorship-focused effort.

Other comments included encouragement on methodological innovation, including synthetic control arms, new analytic approaches, and integration with other initiatives. There was also interest in public-private partnerships, hospital-based support, and broader care delivery models such as home-based care and AI-enabled care, especially for rural populations and disparities. The panel with one abstention unanimously supported NCI joining the PAR entitled "Palliative Care Research Across the Lifespan".

VI. NCI Project Update-Cancer Systems Biomedicine

Dr. Dinah Singer, Deputy Director, Scientific Strategy and Development and Acting Director, Division of Extramural Activities introduced a new NCI effort called Systems Cancer Biomedicine Demonstration Project (SysCan), developed with the Foundation for the NIH as an academic-philanthropic-private sector consortium. She introduced the speaker, Dr. Joe Gray, a Senior Advisor to the NCI, Professor Emeritus, Biomedical Engineering, Oregon Health & Sciences University and Laboratory Medicine, University of California, San Francisco is leading the joint effort.

The goal of the SysCan project is to catalyze development of the tools, drugs, and systems control strategies that will achieve more effective tumor control to tolerable toxicity by creating robust anti-cancer micro- and macroenvironments to complement tumor cell targeted treatments. This is planned and executed as a federal-academic-philanthropic-private sector consortium.

The rationale is that advanced cancers become hard to control because of epigenomic instability, migration, and tumor heterogeneity, which often defeat standard tumor-targeted drugs. Additionally, cancer targeted drugs that have strong influence on nontumor micro- and macroenvironments can be pro-or anti-tumor depending on the drug, and treatment efficacy and tolerability can be increased by combining tumor targeted and other drugs to increase antitumor nature of the nontumor micro/macroenvironments.

The initial demonstration project will focus on advanced-stage microsatellite-stable colorectal cancer (MSS-CRC), chosen because it is experimentally accessible and has a substantial risk of progressing to metastatic disease within a few years. The short-term aim is to show that "systems control" is possible in a pilot project; the long-term aim is to incorporate successful SysCan approaches in ongoing clinical trials for other cancers.

The initiative proposes a novel systems-level approach to cancer treatment by broadly defining the components of anti-tumor micro/macroenvironments and then re-create robust antitumor environments through purposeful therapeutic targeting.

The timing is driven by major advances in enabling technologies with high-resolution measurement tools to map tumor ecosystems and interactions, AI and large-scale computing to integrate literature and experimental data and uncover mechanisms, and computational and experimental laboratory models of tumor ecosystems to simulate and optimize treatment strategies. Together, these make it feasible to study and control cancer as a complex biological system.

The SysCan builds on work from the broader research community, FNIH programs such as Partnership for Accelerating Cancer Therapies (PACT); NCI programs such as in cancer genomics, systems biology, technology, and those supported through the Frederick National Laboratory for Cancer Research (FNLCR), NCI-DOE collaboration; NIH programs such as Common Fund projects, Human Genome Project, Human Biomolecular Atlas; and Revolutionary Private Sector R&D such as Exascale computing, AI, measurement tools, novel targeted drugs. NIH and FNIH developed a request for collaboration (RFC) for public private partnership and was reviewed and approved by the Frederick National Laboratory Advisory Committee in 2024. Five SysCan WGs were formed and met with a goal to prepare a white paper concept to execute the program by the end of this year.

The demonstration project (focused on colorectal cancer) will broadly identify key anti-tumor features in tumor environments, determine the mechanisms that generate these features, develop strategies (including drugs and drug combinations) to enhance anti-tumor environments, and test these strategies in preclinical models and clinical trials. The final goal is to initiate a clinical trial to test the concept. Each of these goals is expected to use computational modeling, empirical methodology, and public-private collaboration.

The proposition includes generation of the first comprehensive elucidation of functional micro/macro environment-tumor features that influence tumor progression, will yield a wealth of integrative computational tools to understand system-level interactions, develop new treatment strategies that create strong and broad antitumor micro/macroenvironments that can be added to tumor targeted treatments to increase tumor control at tolerable toxicity, selection of novel drugs and drug combinations using both computational modeling and experimental discovery methods, and establish systems-based clinical trial platforms.

Discussion: Dr. Singer clarified that SysCan is still in the design/input phase, not yet a formal concept, so the committee is being asked for feedback rather than a vote. NCI's ultimate role would be to participate actively, potentially through work at FNLCR or through future funding opportunities. The team plans to return later for a formal concept review.

Dr. Rudin asked how this initiative differs from existing systems' biology efforts. Dr. Wicha suggested that this is an opportunity using aggregational tools developed from this proposed large consortium to lead NCI to partner to answer basic questions that use the tools and to

develop new RFAs. Dr. Lopez asked if impact of lifestyle is considered to understand risk, to better understand metabolism, exposures, and how it can impact tumor micro/macroenvironments. In response, Dr. Gray clarified that psychological aspects of lifestyle are going to be key components to macroenvironment, and it will be considered. Dr. Cukierman explained that a key distinction is the non-tumor-intrinsic focus instead of studying the cancer mass broadly, and that this effort is centered on micro- and macro-environmental components that can be manipulated to improve control of cancer. The broader goal is to use new computational and experimental tools to identify which environmental features are causally linked to clinical outcomes.

Committee members asked for more clarity on the funding mechanisms and implementation structure. The response is that the project is being built through a phased process, with a design phase nearly complete and an implementation phase still to come. It was emphasized that the field will likely require large consortium-style collaboration, including private sector and philanthropic partners, because the needed tools and data integration are beyond what a single institution could readily build alone.

Dr. Newman enquired about scope and future expansion, including whether this could eventually incorporate different populations internationally or be adapted for broader cancer biology questions. Dr. Singer responded that ideas are worth considering later, but the immediate priority is to establish the core framework and demonstrate feasibility in a focused setting.

The committee endorsed the SysCan Program as important and forward-looking, but also emphasized that a clearer definition of the technical approach, scope, and funding pathway are needed.

HEAL Initiative: Pain Management Effectiveness Research Network (ERN): Clinical Trial Planning Cooperative Agreement (UG3/UH3)

Dr. Brennan Streck, Program Director, Breast and Gynecologic Cancer Research Group, Division of Cancer Prevention (DCP), NCI, explained that Helping to End Addiction Long-term (HEAL) is a large, congressionally funded NIH effort focused on improving pain management and reducing opioid misuse and addiction. It includes many institutes across NIH and HHS. For NCI, the relevance is clear – cancer pain is common, often undertreated, and can come from either the tumor or the treatment. Because pain affects treatment adherence, completion, and quality of life, NCI sees participation as well aligned with its symptom science priorities. Since 2019, NCI has made 57 grant awards under the HEAL initiative.

The objective of the ERN is to compare effectiveness of safe, non-addictive therapies, strengthen guidelines for pharmacologic and non-pharmacologic treatments for pain, and provide patients and practitioners with suitable strategies to alleviate pain, reduce reliance on opioids, and improve quality of life. The ERN is designed to support large-scale clinical trials through a phased UG3/UH3 cooperative agreement. Its structure combines investigator-led trial teams with resource centers that provide biostatistics, recruitment, retention, data management, harmonization, and site coordination. The NCI already has two active ERN trials, and the model has helped support trial development and execution across diverse sites and populations.

A key point is that participation costs NCI no direct funds, since HEAL is congressionally funded (NIDA and NINDS manage funds); NCI contributes staff time and scientific oversight. The

program also ensures that cancer populations are represented in HEAL's common data infrastructure, which could benefit future pain research in oncology.

In response to the question about how collaborative oversight is established, Dr. Streck clarified that the program officer and project scientist roles are separate and that project scientist is from NCI to guide methodology, design, and transition from Phase 1 to phase 2. The WG gave unanimous support for NCI's continued participation.

VII. NCI's approach to evaluating Multi-Cancer Detection Assays for cancer screening: The Vanguard Study

Dr. Lori Minasian, Deputy Director, Division of Cancer Prevention, NCI presented on behalf of the NCI Multi-Cancer Detection (MCD) Clinical Trial Team. Principles of population-based screening include the need for a large burden of disease, a recognizable pre-clinical stage, the potential for cure in early-stage disease, acceptability of screening test to patient and doctor, reasonable sensitivity, specificity, and predictive value of the screening test, and improvement in reducing disease-specific mortality by screening. The goal of evaluating novel screening technology is to answer the question-does screening asymptomatic people for cancer with that technology save lives from cancer?

The core argument is that while standard cancer screening works well for a few cancers, more than half of cancer deaths occur at sites without established screening tests, creating a major need for new detection strategies. MCD assays aim to detect signals from multiple cancers at once using blood or other body fluids, but their performance varies widely. The main tradeoff is that many tests prioritize very high specificity to avoid false positives, which can reduce sensitivity, especially for early-stage disease.

Because these tests are not diagnostic and their published evidence base is still limited, NCI developed a large-scale randomized trial framework. The original vision was a platform trial comparing multiple assays, but significant differences exist in the design for a cancer screening clinical trial for a technology that aims to detect a single cancer type versus multiple different cancer types. Fundamentally, the different cancer types have different natural histories. NCI held a Study Design workshop in October 2021 which strongly recommended starting with a feasibility or pilot study. The Vanguard Study is that pilot study.

In 2021, the Division of Cancer Prevention was asked to spearhead development of large-scale cancer screening trial to evaluate multi-cancer detection assays. The framework for developing MCD clinical utility trials has three aspects: 1) study planning, 2) network development, and 3) selection of assays for the Vanguard Study. These activities have been conducted in parallel. NCI held a study design workshop in October 2021. The Cancer Screening Research Network (CSRN) was funded in January 2024 and brings investigators with cancer screening expertise together to design and conduct screening clinical trials. NCI released a Request for Information (NOT-CA-22-033) to gather information about assays available and companies willing to partner with NCI. The NCI team met with 18 different MCD assay developers to learn what was available and created a framework for assay selection process. A workshop was held to engage assay developers and academic institutions. Many of the developers and academicians submitted applications and NCI selected two assays for Vanguard Study.

The Vanguard Study is now recruiting and includes two selected assays (Shield MCD from Guardant Health and Avantech MCD from ClearNote Health). The study randomly assigns participants to one of three arms: Standard-of-care screening is offered to all participants,

baseline and year-one blood draws, and a sample size of about 6,000–8,000 participants. The primary goals are to assess recruitment feasibility and adherence, representative enrollment across sites, timeliness of test result return, understanding factors contributing to lack of diagnostic resolution, estimating the proportion of abnormal MCD tests that are diagnostically resolved and the time to resolution, and assessing the effect of an abnormal test on diagnostic workup on anxiety, cancer worry, and other patient-reported outcomes.

The study was launched in June 2025 and is being managed across multiple sites and systems, including the Fred Hutchinson Cancer Center (coordinating and communication center), Henry Ford, Kaiser Permanente, UNC, VCU, Wash U, VA, Walter Reed, and DoW partners. The NCI team has co-authored several peer reviewed publications describing different aspects of the process.

In summary, NCI is using the Vanguard Study to answer a practical question first; can multicancer screening be implemented feasibly and responsibly before moving to a much larger trial powered for a reduction in cancer mortality?

Discussion: Dr. Mesa focused on practical concerns around the Vanguard multicancer early detection study and the broader implications of MCD assays entering the clinic before definitive evidence is available. A major issue was reimbursement and downstream workup. He noted that the test itself may be free in the study, but the real cost burden is the diagnostic evaluation after a positive result. Dr. Minasian explained that CMS coverage rules would not readily apply, so the study is using dedicated funds and some site resources, while also exploring how insurers may handle follow-up workups.

Dr. Ideker asked whether NCI should be developing its own assays or rely on commercial ones. The response was that the current goal is evaluation, not assay development. The study uses two selected methylation-based assays, and the team is trying to build a process that may eventually allow more data sharing and refinement, but commercial intellectual property remains a constraint. Dr. Vonderheide highlighted how fast the field is moving, with companies seeking FDA approval and the risk that adoption may outpace evidence.

Several comments emphasized the need for broader, longer-term evaluation, including more longitudinal data, risk-based screening, and a better understanding of what happens when a test is positive but not clearly linked to one of the targeted cancers. The message from the committee was that this work is important as a proof-of-principle effort, but it must be paired with rigorous statistics, adaptive design, and a clear understanding that stage shift is not the same as a mortality benefit.

VII. RFA/PAR/Cooperative Agreement Concepts

RFA Concept Reissuance: Man's Best Friend: Canine Cancer Immunotherapy Network (K9CIN)

Dr. Connie Sommers, Acting Chief, Immunology Branch, Division of Cancer Treatment and Diagnosis (DCTD) presented a reissuance of a concept as a request of application (RFA). The challenge addressed is to find the best predictive preclinical data that can serve as a basis for designing and initiating human immunotherapy clinical trials.

The rationale for the concept is that traditional preclinical models, especially mice, in some settings fail to translate well to humans. Dogs offer a more realistic setting because they develop cancers spontaneously, have intact immune systems, share environmental exposures

with humans, and experience heterogeneous tumors and immune-related toxicities in ways that are often more comparable to people. The network is therefore framed as “natural translation”: testing immunotherapy strategies in dogs so the results can better inform human trials. Advantages of canine clinical trials are that dogs develop cancer at high rates resulting in a pool of pet dog cancer patients. The pet dogs in these trials are not purpose bread dogs but referred by veterinarians, that can benefit from canine clinical trials and pet owners can receive cost-effective care for their pets.

The proposed RFA renewal would continue and build on synergy of current network among canine researchers, with a stronger focus on cancer types that are common in both dogs and humans, such as osteosarcoma and glioma as mentioned in the concept. It would support canine clinical trials plus correlative studies, and results would be shared through the Integrated Canine Data Commons (ICDC). In the funding opportunity, timeline with completion of a canine clinical trial with results that are applicable for IND preparation and translation to a human clinical trial is a requirement. The current structure would shift to the U01 mechanism with two types of awards-one for the coordinating center and one for the research projects. The coordinating center would be associated with a small research project tied to the broader network.

The presentation highlighted strong prior successes from earlier networks, including canine studies that helped launch human trials in osteosarcoma and other cancers, along with useful resource development such as canine assay panels, 10x Genomics tools for FFPE samples, and community data infrastructure.

Discussion: A letter of PETA was considered by the reviewers and workgroup members. The workgroup members strongly supported reissue of the RFA concept, emphasizing that the network is uniquely valuable, that it reduces duplication, and that it helps generate translational insights not easily obtained by other available methods. The discussion also stressed that the network benefits both dogs and humans; pet dogs receive cutting-edge treatment, owners gain access to care, and human cancer researchers gains better preclinical evidence. Dr. Eckhardt highlighted a potential opportunity to run the trials with ETCTN. Dr. Wicha cautioned that the budget for conducting correlative science may not be adequate. The committee expressed broad support for reissuing the network and continuing its comparative oncology mission.

Motion: A motion to concur with the reissue of concept for RFA from DCTD entitled “Man’s Best Friend: Canine Cancer Immunotherapy Network (K9CIN)” was unanimous.

PAR Reissuance: Research Specialist Award for Laboratory and Core Scientists and Clinician Research Scientist Award

Drs. Kelly Crotty, Program Director, Center for Strategic Scientific Initiatives and Wolf Lindwasser, Deputy Director, Coordinating Center for Clinical Trials, NCI, presented the concept for lab- and core-based research specialists and clinician scientists, (R50) reissuance, previously two programs (PAR), that support outstanding researchers who are not principal investigators but make essential contributions to NCI-funded cancer research.

The research specialist award (R50) supports lab- and core-based research specialists. These are highly trained scientists, including staff scientists, data scientists, and other core experts, who keep complex research programs running, preserve institutional knowledge, train others, and maintain rigor and reproducibility. The award provides salary support plus limited travel and

training funds. It is meant for established specialists in full-time non-tenure-track roles who are already contributing substantially to NCI research funded to a unit director.

The clinician scientists help run and sustain NCI-funded clinical trials. The R50 grant mechanism is intended for mid- to late-career clinicians who are not pursuing independent R01-type funding but are essential to trial design, patient accrual, site leadership, and network activity. It provides protected salary support and travel/training funds to help retain these people in academic clinical research.

Both research specialist awards for laboratory and core scientists and clinician research scientist awards are important because these career paths are often under-supported, even though they are critical to the cancer research enterprise. The lab/core R50 has been running since 2016 and has supported 145 specialists across 66 institutions. The clinician scientist R50 has existed since 2023 and has 56 grants awarded across 39 institutions. The reissue of the PAR would aim to continue both programs, either as a new combined NOFO or separate, for three more years between 2027 and 2029.

Discussion: Committee discussion was strongly supportive, overall. In response to Dr. Chan's concern about eligibility restrictions for the Research Specialist award for laboratory and core scientists, especially the rule excluding applicants who have applied for independent funding in the past five years, Dr. Crotty responded that currently, eligibility is focused on individuals who are not principal investigators. Dr. Wicha pondered whether the clinician scientist program should require more institutional financial commitment to which Dr. Lindwasser responded that the institutional commitment is limited to the percent effort requested by the clinician research scientist. Dr. Bhatia asked whether the programs should be broadened further, including additional dry-lab and shared-resource specialists. In response, Dr. Crotty noted that dry lab and shared resources are included under the lab and core scientist award. In response to the question by Dr. McDonald, why there is an exclusion of core and lab scientists to apply for R50 funding who have applied for independent funding in the last five years and how it is different for the clinician research scientist, Dr. Crotty responded that in the case of lab and core based specialists, this is their career path who want to be in a position that they are not independent investigators. In the clinician scientists' program, they are independent with faculty appointments and may have had/have NIH grants. It is the program's requirement that is different for the two applicant pools, not that of the R50 grant condition.

Motion: The committee unanimously concurred with the reissue of the PAR concept(s) entitled, Research Specialist Award for Laboratory and Core Scientists and Clinician Research Scientist Award.

PAR Reissuance: Pathway to Independence Award for Early-Stage Postdoctoral Researchers (K99/R00) and The NCI Worta McCaskill-Stevens Career Development Award for Community Oncology and Prevention Research (K12)

Dr. Nastran Zahir, Acting Director, Center for Cancer Training, NCI, presented a reissue of concept for a PAR Pathway to independence Award for Early-Stage Postdoctoral Researchers (K99/R00) and The NCI Worta McCaskill-Stevens Career Development Award for Community Oncology and Prevention Research (K12).

The Pathway to Independence award for early-stage postdoctoral researchers is aimed at supporting scholars in areas like cancer control, population science, precision prevention, and data science who often have shorter postdoctoral periods and face a harder path to their first

R01 grant. The goal of the early K99/R00 program are to increase and maintain a strong cohort of new and talented NCI-supported independent investigators to help early-stage post-doctoral fellows complete the needed mentored training to advance to research independence. NCI plans to reissue only the non-clinical-trial PAR, not the versions allowing clinical trials or other special formats, while still permitting clinical trial experience under a mentor. The program has strong demand, with a 25% success rate and roughly 125 applications per year after expanding due dates. It has been productive in helping scholars move on to independent funding. The PAR reissuance request is for three years starting in FY 2028.

The institutional K12 career development award for clinical scholars is for community oncology and prevention research, designed to prepare newly trained clinicians who are committed to independent research careers in community oncology, prevention, or treatment research, and to facilitate their transition to more advanced support mechanisms or independent research funding and to strengthen the pipeline for clinicians who want research careers but often lack protected time, mentorship, and infrastructure. The reissue would shift to clinical-trial-not-allowed, while still allowing scholars to gain trial experience through lead investigators. The PAR reissuance is for three years beginning in FY 2028, and it would provide up to five years of support, with salary and research development funds, and is intended to train about 60 scholars over the life of the PAR.

Discussion: Overall, the discussion emphasized that both programs address real gaps in the research workforce and help build future cancer researchers and clinician-scientists.

In response to the question about effort and salary support, Dr. Zahir clarified that both programs generally require 75% effort, but for the K12 program for clinician/surgeon scientists can request 50% effort. Dr. McDonald asked whether the program's community-oncology focus could include international collaboration. Dr. Zahir clarified that foreign components are allowed, but foreign subawards are not allowed.

Motion: The committee unanimously concurred with the reissue of concepts for PARs entitled Pathway to Independence Award for Early-Stage Postdoctoral Researchers (K99/R00) and The NCI Worta McCaskill-Stevens Career Development Award for Community Oncology and Prevention Research (K12).

PAR Reissuance: Small Cell Lung Cancer Consortium Coordination and Resource Center (U24)

Dr. Peter Ujhazy, Deputy Associate Director, Translational Research program, Division of Cancer Treatment and Diagnosis presented the concept for reissue of a PAR for small cell lung cancer (SCLC) consortium resource center.

Dr. Ujhazy described the specific aims of the consortium's U24 resource center, which has been central to the SCLC field in supporting data exchange, meetings, preclinical and clinical resources, model characterization, and broad access to tools and datasets. The SCLC consortium's work has produced a large body of publications and helped define the molecular landscape, heterogeneity, resistance mechanisms, biomarker work, liquid biopsy approaches, and new therapy strategies in small cell lung cancer.

A key point was that this coordinating infrastructure has helped the field mature significantly-NCI small cell lung cancer funding has grown from very little in 2015 to roughly $30–40 million per year, with many former consortium projects now competing successfully for R01 grants and

other investigator-initiated awards. The renewal request is for a single-source PAR because the current U24 resource is unique and broadly used, not just by the funded SCLC consortium members but by the larger SCLC research community. The concept also includes continued collaboration between SCLC consortium members, NCI intramural staff.

Discussion: Dr. Ulrich asked for the rationale about why the renewal is needed now if the field is already strong. Dr. Ujhazy responded that the U24 remains a hub that serves the broader community, provides access to cBioPortal data and models, and has been critical for sustained progress.

Motion: The committee voted to concur with reissue of the concept for PAR entitled Small Cell Lung Cancer Consortium Resource Center with three abstentions.

VII. Adjournment-Dr. Cornelia Ulrich

The Chairperson, Dr. Ulrich, thanked all the WG members, visitors, and observers for attending. There being no further business, the first in-person meeting of the NCAB *Ad hoc* WG on Extramural Research Concepts and Programs was adjourned at 4:00 p.m. on February 6, 2026.

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Cornelia Ulrich, Ph.D., Chair Date

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Samantha Finstad, Ph.D., Executive Secretary Date