RUTGERS
Cancer Institute
of New Jersey

**Rutgers Cancer Institute of New Jersey**
**External Advisory Board Meeting**

**Minutes of the Meeting**
**September 29, 2022**

A meeting of the External Advisory Board (EAB) of Rutgers Cancer Institute of New Jersey (CINJ) was held on Thursday, September 29, 2022. For the first time in two years the meeting was held in-person with an option for participants to join remotely via the WebEx platform.

| **EAB Members – Present** | | |
|---|---|---|
| Candace Johnson, PhD (Chair) | Dorothy Hatsukami, PhD | Adekunle Odunsi, MD, PhD |
| Richard Baer, PhD | Ernest Hawk, MD | Peter J. O'Dwyer, MD |
| Chad Ellis, PhD | Chanita Halbert-Hughes, PhD | Andrew F. Olshan, PhD |
| Melissa Bondy, PhD | Maha Hussain, MD, FACP | Marcy B. Waldinger |
| Ralph DeBerardinis, MD, PhD | Cheryl Jernigan, CPA, FACHE | Jeffrey S. Weber, MD, PhD |
| Eric Fearon, MD, PhD | Benjamin G. Neel, MD, PhD | Danny R. Welch, PhD |
| Stanton L. Gerson, MD (virtual) | (virtual) | Michael J. Becich, MD, PhD |
| | Christopher Li, MD, PhD | (virtual) |
| **Invited Participants - Present** | | |
| Wadih Arap, MD, PhD | Carolyn Heckman, PhD | Gina Londino-Greenberg |
| Elisa V. Bandera, MD, PhD | Christian Hinrichs, MD | Renata Pasqualini, PhD |
| Adam Berger, MD, FACS | Howard S. Hochster, MD | Tracie Saunders |
| Stephen K. Burley, MD | Yibin Kang, PhD | Zhiyuan Shen, MD, PhD |
| Chang Chan, PhD | Anita Y. Kinney, PhD | Ioannis Stasinopoulos, PhD |
| Sunita Chaudhary, PhD | Edmund Lattime, PhD | Linda Tanzer |
| Shridar Ganesan, MD, PhD | Haejin In, MD, PhD | Eileen White, PhD |
| Steven Libutti, MD, FACS | Yibin Kang, PhD | Steven Zheng, PhD |
| | | Wei-Xing Zong, PhD |

Call to Order
Dr. Candace Johnson called the meeting to order at 8:05 am. She welcomed the Board (in-person and virtually) and led member introductions.

Review and Approval of the Minutes
The minutes of the May 19, 2021 meeting were reviewed. Upon motion made, seconded, and unanimously carried, the meeting minutes were approved.

Director's Overview - Steven K. Libutti, MD, FACS
Dr. Libutti welcomed the Board and thanked everyone for joining in-person or virtually. Dr. Libutti is the Director of Rutgers Cancer Institute of New Jersey (started tenure in 2017), Vice Chancellor of Cancer Programs at Rutgers, and Senior Vice President for Oncology Services at the RWJBarnabas Health System. The EAB was invited to examine Rutgers Cancer Institute of New Jersey's overall mission, promotion of excellence in research, and strategic direction.

The State of New Jersey is the most densely populated state in the United States, with a calculated 9.2 million people at the last census. It is the fourth most ethnically diverse and has the sixth highest cancer incidence. There are significant racial, ethnic, and socioeconomic disparities in cancer incidence, mortality, and access to care which is a burden to the state's population. CINJ is the only NCI designated Cancer Center in New Jersey. The Cancer Institute of New Jersey was established in 1992 (celebrating its 30th anniversary), became NCI designated in 1997, and in 2002, under the direction of the former Director Dr. William N. Hait, achieved comprehensive status. In 2013, CINJ was integrated into Rutgers University as an independent unit and, because of the integration, became a member of

the Big 10 Cancer Research Consortium. The Cancer Center has grown in terms of membership and CINJ's partnership with the RWJBarnabas Health System.

The results of the prior CCSG review yielded an Impact Score of 28 and an excellent to outstanding rating for the Cancer Institute. There were many notable strengths; opportunities where CINJ could focus on improving their ability to drive discovery forward included: 1) improving the system for identifying and prioritizing translational opportunities; 2) capitalizing on health system partnerships through expanding clinical trial accrual; 3) increasing collaborative opportunities (P01) and training grants; and, most importantly, 4) identifying a high-impact Center-defining scientific initiative. CINJ has since capitalized on these opportunities.

CINJ is comprised of five research programs: Cancer Metabolism and Immunology (CMI); Genomic Instability and Cancer Genetics (GICG); Cancer Pharmacology (CP); Clinical Investigations and Precision Therapeutics (CIPT); and Cancer Prevention and Control (CPC). These research programs are supported by Shared Resources and developing Shared Resources (such as organoid development).

Like several cancer centers, CINJ was impacted by the COVID pandemic. To mitigate this, CINJ leveraged science to drive discovery utilizing a grant awarded in 2019. Patient therapeutic care and oncology clinical trials were uninterrupted, and COVID-19 clinical trials were implemented. CINJ, along with RWJBarnabas Health (RWJBH), organized statewide cancer program response groups and executed an MOU with the New Jersey Department of Health (NJDOH) linking the NJSCR with the NJ COVID registry data. Data mining has begun on the impacts of COVID in oncology. In response to the COVID pandemic, research projects were pushed forward such as the development of the first saliva assay to detect COVID, an inhalation vaccine licensed with a biotech company, and many other efforts.

Catchment area priority cancers include breast, colorectal, HPV-Related cancers, lung, melanoma, and prostate. These were selected because of differential incidence and/or mortality as compared to national data. Risk factors were described. A statewide screening program, ScreenNJ was launched during 2018 and has been recognized as a prevention education and detection program for lung and colorectal cancers throughout NJ. A new line item from the state of $2 million was provided to help CINJ expand cancer screening for lung and colon cancer. Currently, under the leadership of Dr. Anita Kinney, ScreenNJ has dramatically expanded over the last four years with the screening of high incidence cancers across all 21 counties in the state. ScreenNJ has 189 clinical and outreach partners at 331 sites including a mobile unit that will provide education and health measures to reduce the burden of cancer throughout the state. State funding has grown to $4 million to improve awareness, prevention, screening, and timely diagnosis/treatment. The Consortium with Princeton University, to be discussed later, executed an MOU approved by the NCI. A steering committee oversees activities, and several shared resources members have access across both campuses. This is a significant on-going commitment by Princeton in terms of support (financial and space.) Members secure close to $9 million in funding and hold about 20 PD/PIs in the Consortium.

Key recruitments were were highlighted. In the last Cancer Center Support Grant (CCSG) review, the opportunity to expand CINJ's clinical trials program was noted. After working with outside consultants and reviewing all clinical trials, Dr. Hochster, Tracie Saunders, and Renee Kurz, worked to reorganize and expand CINJ's clinical trials program. Centralizing Internal Review Board (IRB) review and oversight of all CINJ clinical trials resulted in the activation of 80+ treatment trials open across the RWJBH system, new partners were added for clinical research, and CINJ is in the process of adding affiliated hospitals outside the health system. There has been a steady increase in the number of interventional treatment enrollments (2017-2022). Despite the pandemic, there was an increase in accruals during 2020, and CINJ is on track for about 580 therapeutic clinical trial accruals this year.

To improve the process for translating discoveries from the laboratory to the clinic, CINJ created a Committee to Expedite Translational Initiatives (CETI) process. CETI is jointly chaired by Dr. Ganesan and Dr. Pasqualini. The CETI Committee meets regularly with Program Leaders and members to identify areas within their programs to deploy resources. Those projects are submitted for review, scored, and leveled up for funding to accelerate that translation. Recent CETI faculty awards were highlighted. In addition, CINJ applied for and received a Research Enhancement and Commercialization Hub (REACH) award from the state. There are only seven hubs across the state and CINJ was successfully awarded the Rutgers Optimizes Innovation hub to help leaders navigate the path between submitting

patents through early clinical trials. This hub adds value to the universities, both Princeton and Rutgers, by bringing these resources to the campus. Examples of translational pipelines were described by Dr. Libutti.

Since 2018, CINJ investigators have executed 28 licensed agreements, 75 patents, 342 patent applications and 157 sponsored research agreements. This work is driven by the new Associate Director, Christopher J. Malloy, who brings a wealth of experience and relationships with pharma across the state. Due to institute science over the past funding period, many biotech start-ups were developed and licensed (some by large biopharma) bringing laboratory discoveries to clinical trials. Using CINJ's tremendous strengths in Cancer Metabolism as a foundation, the Cancer Institute defined this high-impact area in science. Through this nexus, the Center of Excellence was formed. $28 million was raised to date (including $25 million gift) for recruiting members, operations, immune monitoring core enhancement, and enabling cell therapy trials. Dr. Hinrichs has been recruited to co-direct the Duncan and Nancy MacMillan Center of Excellence with Dr. White.

Another event that helps stimulate the nexus between cancer metabolism and immunology was the collaboration between Princeton, CINJ, and RWJBH. The newest Princeton branch, the Ludwig Institute of Cancer Research, focuses on cancer immunology metabolism with ongoing investment to co-Directors. A $12 million philanthropic investment allowed for collaborative research awards for mass spectrometry and other technology, and fellowships/educational initiatives. Due to investments from development and philanthropic funds, CINJ received a multi-PI T32 which hosts two postdocs per year and two R25s from the NCI. Many other T32s and R25s have been awarded across the Princeton and Rutgers partnership.

In the summer of 2020, President Jonathan Holloway's diversity efforts have focused on a benevolent society at Rutgers. CINJ is focusing more on its plans to enhance diversity across the RWJBH system to see how we can advance underrepresented groups (URGs) throughout the faculty and leadership. A new office of Diversity, Equity, and Inclusion was established and is staffed by three FTEs.

Dr. Libutti highlighted major discoveries in sciences and cancer immunology throughout the consortium, followed by the six essential characteristics that define the cancer center. The first is physical space. Currently, CINJ has a 225,000 sq. ft. primary clinical and research facility; a 36,000 sq. ft. bone marrow transplant/dedicated oncology space across the street from the main building; 40,000 sq. ft. of leased administration space, and 100 beds in the Radiation Oncology section of Robert Wood Johnson University Hospital. The Cancer Institute plans to build a 520,000 sq. ft. inpatient/outpatient research pavilion (2024). The Jack and Sheryl Morris Cancer Center, at opening, will have 84 infusion bays, 86 exam rooms, diagnostic imaging on site, core laboratories/facilities, a pharmacy and outpatient urgent care. In addition, it will have 96 private rooms across three floors, dedicated space for surgical and procedure rooms, a central sterile processing area, and research areas.

The second essential characteristic is organizational capabilities. Fortunately, CINJ benefits from the insight and input from the Research Leadership Council, External (EAB) and Internal (IAB) Advisory Boards, Consortium Steering Committee, and Community Cancer Action Board (CCAB). The CCSG and oncology service line organizational structure was outlined, as well as Dr. Libutti's reporting structure to leadership (Presidents and Vice Chancellors) of Rutgers and RWJBH.

The third essential characteristic, transdisciplinary collaboration, and coordination has been achieved through increased multi-PI awards and notable collaborative projects under CINJ faculty leadership. In addition, programs continue to drive significant intra- and inter-programmatic activity, including publications and clinical trial collaborations across the Big 10 consortium.

The fourth essential characteristic, cancer focus, is determined through an annual review of NCI and other peer-reviewed funded projects by program leaders. Since the last review, CINJ had an increase in total direct peer reviewed funding for cancer relevant projects from $45 million to $65 million (a 45% increase) and an increase in the number of projects. NCI specific research funding has increased, as well, from $21.3 million to $25 million (a 17% increase).

The fifth essential characteristic, institutional commitment, was outlined by a list of partners with a combined FY (Fiscal Year) support of $120 million. In addition, the health system contributed $750 million for the construction of the Jack and Sheryl Morris Cancer Center. State support has been unyielding despite different administrations and

challenges of the pandemic. $53 million has been allocated to support research, infrastructure, recruitment of faculty, clinical research activity, and shared resources.

For the sixth and final essential characteristic, as the Cancer Center Director, Dr. Libutti is a surgical oncologist, who spent time at the NCI and at the Albert Einstein College of Medicine before joining CINJ. The Center Director has a background and experience in peer-reviewed funding, publications, and a record of accomplishments in research, clinical activity, and cancer administration. He continues to have an active research laboratory funded by a Multi-PI R01 grant and a Peterson Accelerator Award from the Neuroendocrine Tumor Research Foundation. The Center Director reports to the highest levels of the University and the health system and has 100% authority over resources (state funds, institutional support, indirect funds for resident faculty, and philanthropic funds). As Senior VP for Oncology Services, Dr. Libutti is also responsible for the budgeting of cancer services at all CINJ facilities.

Future plans in the new grant period include continued investment in cancer immunology; completion of construction and operationalization of the new Jack and Sheryl Morris Cancer Center and outpatient facilities; increase multi-PI projects and project submissions; expand catchment areas through mobile unit to reduce cancer burden and address health equity; further operationalize the new DEI office and implement a diversity plan to increase and enhance representation among leadership; and leverage state's investment in pediatric research to establish a new pediatric oncology CCSG research program.

Comments/Recommendations:
The EAB felt CINJ has made incredible progress and has demonstrated great work. Certain presentation areas can be removed such as info on COVID and center history. Discussing clinical trials at the beginning is great, the EAB suggest adding the type of trial/partner (industry, etc.) While presenting slides, the EAB suggests highlighting new recruits. Tech transfer was discussed at great length; EAB suggests decreasing the amount of info presented. The EAB also suggests considering how to bring in diversity efforts throughout the whole presentation. The EAB suggests moving catchment/metrics to the front and highlighting mission/vision/trajectory of the center. The science highlighted was more granular than needed for an overview. Some space could be saved by including the score and critique of essential characteristics, focusing on score improvements year-to-year. The EAB was curious about how flexible the state funding is and suggested ways to capture funding to invest in other ways (DEI, etc.). The EAB suggests that Dr. Libutti display how CINJ has valued/leveraged assets (screenings; number of investigators) to make an impact across the state. The EAB suggests including (under cancer focus) that the cancer center is very committed to cancer relevance review and showing the integration of Princeton faculty in the overview.

Catchment Area/Community Outreach and Engagement – Anita Kinney, PhD, RN, FAAN, FABMR
Anita Kinney, Associate Director for Community Outreach and Engagement gave a brief overview. The aims of Community Outreach and Engagement (COE) are to: 1) monitor and evaluate the cancer burden, disparities, and community needs in New Jersey to guide outreach and scientific inquiry; 2) facilitate community stakeholder engagement in cancer prevention, control, care, and research efforts in addressing the cancer burden and reducing disparities; 3) promote the implementation of policies and evidence-based strategies to reduce the cancer burden; and 4) catalyze impactful and equity-based cancer research in NJ and beyond.

Community Outreach and Engagement scored excellent to outstanding in the last review. COE's responses to critiques have been demonstrated through 1) increased activity in southern and western New Jersey; 2) improved integration with providers; 3) further developing structure, planning, prioritization, and coordination, and 4) building Princeton consortium interactions. The COE office has a strong leadership team, a vibrant Community Cancer Action Board (CCAB), and an internal advisory committee comprised of senior program leadership and liaisons. The 38-member CCAB comprises different stakeholders representing a diverse group of members, including survivors, responsible for research integration with COE and catchment areas. CCAB aligns with the CINJ mission by posturing and understanding the community needs, as well as implementation of strategies to promote cancer control actions, reducing disparities, strategic planning, and evaluating impact (such as media and arts impact council). The COE team includes FTEs and coordination with Nurse Navigators throughout the health system. There is strong institutional support with an annual budget of $5.4M. COE's strategic plan uses a logic model at its foundation which includes resources, strategies and activities, and outcomes (short term, intermediate and long term).

Community Outreach and Engagement reports 97% of CINJ patients reside in New Jersey, the most densely populated state (9.2 million) in the United States. COE research and outreach efforts extend to all 21 counties. NJ is more urban,

educated, racially/ethnically diverse, and foreign-born than the US at large. Although only 5% of residents live in rural areas, many reside in medically underserved areas. New Jersey has the sixth highest incidence of cancer among the 50 states. Southern and western New Jersey carry a disproportionate cancer burden in the state and are priority areas for COE efforts. COE has established prioritization criteria and processes to address breast, lung, colorectal, HPV (human papillomavirus) related, prostate cancers, and melanoma. These cancers are associated with significant disparities and risk factors. Projects, research, and outreach activities address the inequities and disparities involving the high cancer burden and low cancer screening rates.

Community Outreach and Engagement uses various strategies to foster community engaged and responsive research, including the CCAB, community science cafés and launching the first community scientist program at Rutgers. Community identified needs are addressed through a myriad of programs and events to assess community needs, facilitate cancer control efforts, guide research, and understand gaps. ScreenNJ is a statewide program that spawned from CINJ policy efforts with the state legislature and partnership with the Department of Health. The COE has significantly expanded partnerships in clinical sites from all 21 counties and over 50,000 patients screened (with almost 1,000 cancers detected). Focus is on under-insured and insured patients and those with high access barriers and worse outcomes. Over the coming years, as data becomes available, COE plans to impact incidence and mortality. Dr. Kinney provided several examples of how COE uses their logic model to set goals, develop strategies, and evaluate how well the cancer burden is addressed. Policy analysis revealed NJ short falls on meeting the Healthy NJ 2020 cancer screening targets and community disparities. The STRIDE Dashboard was launched in 2022 to increase awareness about the cancer burden priorities and needs and generate hypothesis and preliminary data for grant proposals/publications. STRIDE and COE support have contributed to successful peer review and other grants, including a $2M award from the Merck Foundation to Advance Cancer Care in Health Equity. In collaboration with the Clinical Trials Office and the Disease Study Groups (DSG), COE has co-developed a scorecard to evaluate whether protocols are conducting catchment area responsive research and addressing cancer center priorities. COE also evaluates whether relevant protocols have a minority enrollment plan and study-specific CCAB or patient advocate input. COE has had a significant impact on increasing enrollments with the clinical trials office and DSGs. COE develops, implements, and evaluates strategies to improve metrics, as needed. Efforts extend beyond New Jersey through policy development and implementation work relating to cancer screening. Examples were described by Dr. Kinney.

Community Outreach and Engagement future plans are to: 1) enrich understanding of catchment area needs; 2) bolster community engagement and outreach efforts through activities such as “Street Level Science” initiatives, support impact council, formalizing a speaker's bureau and deepening partnerships with other NCI centers; 3) address the special needs of population subgroups across the lifespan; 4) increase efforts to bolster catchment area responsive research and trial accruals; 5) increase risk stratified prevention screening and genetic testing; and 6) expand number of students, trainees, and faculty doing community engaged catchment area responsive research.

Comments/Recommendations:
The presentation and write-up were exceptional. There has been incredible progress and the level of integration of programs is impressive. The EAB recommended inclusion of a diagram that shows inputs and rationale for the groups involved to advance goals. How initiatives/programs are being evaluated is not clear in relation to goals referenced; this needs more clarity. The EAB suggests expanding on the numbers of those from underrepresented or uninsured backgrounds as they closely relate to cancer outcomes. The quantity of partnerships within RWJBH system and HBCU’s would be another good addition. In the write up, it would be good to include how COE defines and operationalizes community partners versus clinical partners, and how they help synergize/catalyze the efforts of CINJ. Regarding ScreenNJ, the EAB suggests discussing how participants are targeted/identified and outcomes of those detected (such as those of higher risk than others). The EAB suggests considering audience needs/what they can consume in the brief period on slides presented; might be at risk of having too much information.

Cancer Prevention and Control Program (CPC) – Elisa V. Bandera, MD, PhD and Carolyn J. Heckman, PhD
Elisa V. Bandera and Carolyn J. Heckman, Co-Leaders of the Cancer Prevention and Control Program, gave a brief overview of the Cancer Prevention and Control Program (CPC). The overall goal of the Cancer Prevention and Control

Program is to engage in scientific discovery across the cancer control continuum that translates into empirically based interventions, clinical and public health practice, and policy strategies to reduce the cancer burden in New Jersey and beyond. CPC has three specific Program aims: 1) to understand the determinants of cancer risk, treatment and survival, and quality of life outcomes with an emphasis on minorities and underserved populations; 2) to understand and modify cancer risk, prevention and screening behaviors, as well as cancer outcomes and quality of life through individual, family, system level and technology-based interventions; and 3) to understand tobacco use and implement effective tobacco control strategies at the individual, system, and population level. Program membership and funding have increased since the last site visit. Currently, CPC has 30 members with 19 full members. There are 23 R01 equivalent grants from 17 PIs and 28 MPI grants. The Program has total funding of $9.3M. Program productivity and collaborations have increased including publications within CINJ and other institutions.

The CPC Program scored outstanding in the last review. CPC has been working to improve inter-programmatic collaboration through faculty recruits with translational potential, new inter-programmatic collaborations, and an increase in inter-program publication rate. Since the last review, CPC also capitalizes on clinical informatics and the. data warehouse in program research; some examples include EPIC implementation, inaugural Vice Chancellor of Population Health, and multiple research efforts. Scientific highlights are: 1) Dr. Bandera and team on breast cancer research in black women study that has led to major discoveries (place matters; black breast cancer survivors' special needs; and obesity and related biomarkers), and high impact publications; 2) Dr. Manne and team on a digital intervention (MySmartSkin) that demonstrated improved skin self-exam and sun protection in NJ melanoma survivors; and 3) tobacco research by Dr. Delnevo and team that has impacted tobacco policy at the federal level. Dr. Heckman discussed a list of additional scientific impacts on public health policy.

The CPC members accrue well to clinical trials, and across the current funding period, there has been an increase in Black and Hispanic CPC participants. CPC has a successful record of accomplishment of assisting junior faculty with NIH (National Institutes of Health) career development awards, mentoring for undergraduate/graduate students and fellowships. The center adds value to the program through 1) Center administration support for research; 2) Recruitment of diverse new members; 3) SEER New Jersey State Cancer Registry; 4) Shared resources; 5) Developmental funds; and 6) the COE. The program has added value to the center through 1) Cancer focused research strength; 2) High responsiveness to catchment area needs and engagement of NJ communities in research in collaboration with COE; 3) Active public health policy translation and implementation science portfolio; 4) Strong mentoring of diverse and successful pre- and postdoctoral trainees and junior investigators; 5) Cancer prevention and outcomes data support shared resources and 6) Robust and unique longitudinal cohort of black breast cancer survivors.

With cancer health equity as a cross cutting theme, future plans for CPC include: 1) Initiatives to increase inter- and intra-programmatic collaborations; 2) Recruit diverse faculty in key areas in collaboration with the DEI team; 3) Enhance the impact of population science research with additional center grants and multi-PI grants; 4) Ensure rigorous mentoring with the goal of submitting a training grant within next grant period and 5) Expand bi-directional communication with the community served in collaboration with COE.

Comments/Recommendations:
The program is great overall. The EAB suggests distinguishing collaborations and groups included in tables. Metrics of success are missing and should be included. Highlights of all programs should be presented and included in the write-up. Include infrastructure that supports team science and framework for disparities review. Include how health equity is addressed across all specific aims and reference strategic plan alignment in presentation.

Consortium Cancer Center - Yibin Kang, PhD and Eileen White, PhD
Dr. Yibin Kang, Associate Director for Consortium Research, gave a brief overview of the Princeton/Rutgers Consortium followed by Dr. Eileen White.

The mission is to integrate the outstanding researchers at Princeton University into cancer-focused collaborations and provide them with opportunities for translational research made possible within an NCI- Designated Comprehensive Cancer Center.

In the last CCSG review, the consortium was highly rated for strengths such as long-standing consortium partnership opportunities and use of state-of-the-art shared resources; collaboration on training and education; and Princeton

University tangible financial commitment to the cancer center. The Consortium Cancer Center has made focused efforts into four main areas which include: 1) strengthening translational research through collaboration with CIPT and the RWJBH system; 2) integrating Princeton's research excellence in computational biology and genomics into CINJ's precision oncology initiative; 3) developing cross-institutional program projects and training grants (additional T32 with PU participants being submitted); and 4) using the Cancer Center as a focal point for joint faculty recruitment efforts at both CINJ and Princeton. Recent progress has been made within the Consortium Cancer Center, including: 1) Commitment to CINJ vision for immunology and metabolism research; 2) Joint annual symposium to promote collaboration and joint seed grants in computational biology and population science research; 3) multi-institutional/multi-Pl program grants; and 4) Funded T32 training grant in CMI (Cancer Metabolism and Immunology) and Tumor-Host Interactions.

The relationship between Princeton and Rutgers has only increased over the years of the Consortium. Princeton makes tangible commitments to the Cancer Institute financially and through the support of Shared Resources. The consortium has 30 Princeton based members (58% increase from last review) that represents 30 R01 equivalent awards. The consortium has successfully obtained increased NCI research funding ($2.1M, 13% increase) and peer-reviewed, cancer-relevant funding ($8.9M,64% increase).

Overview of Basic Research – Eileen White, PhD
Dr. Eileen White, Associate Director for Basic Research, and member of the National Academy of Science gave an overview of the Basic Research Programs. The mission of Basic Research is to integrate, leverage, and synergize research across Rutgers and Princeton Universities and beyond into cancer-focused collaborations made possible within an NCI-Designated Comprehensive Cancer Center.

Dr. White began with describing the major transformative new initiatives including the Duncan and Nancy MacMillan Center of Excellence in Cancer Immunology and Metabolism launched with a $25M philanthropic gift, allowing CINJ to build on cancer immunology research, recruit members, pilot awards, and support for shared resources. The next transformative initiative was the launch of the new Princeton Branch of the Ludwig Cancer Research Institute directed by Joshua D. Rabinowitz (Princeton), Yibin Kang (Princeton), and Eileen White (Rutgers CINJ). This initiative provides support for equipment/research programs, recruitment of additional faculty in this area, Ludwig fellows, and collaborative research awards. Resources will also be used to launch the first clinical trial for pancreatic tumors in cancer patients at CINJ in collaboration with the CIPT program. Dr. White explained issues with understanding cachexia. Seed funding from CINJ and the Ludwig Princeton Branch supported the development of CANcer Cachexia Action Network (CANCAN) research. The clinical study includes 14 investigators across the US and UK ($25M toral funding). The CANCAN Virtual Institute is organized into four projects, and includes patient advocates who advise on projects and focus on relevant catchment area research. Operations include project meetings, an annual symposium, leveraging Ludwig, and accountability reviews.

Future plans are to 1) Continue building translational research and clinical trials through large collaborative research projects, metabolic profiling of clinical samples, new cellular therapies, and to discover mechanisms of and develop treatments for cancer cachexia; and 2) focus on education and training through joint T32s with Princeton University's Lewis-Sigler Institute, and development of a summer internship program; and 3) joint efforts in faculty recruitment.

Comments/Recommendations:
These comments are made for the last two presenters. The EAB commends this phenomenal partnership and how well it works. The Virtual Institute slide was important to include, though hard to read. A breakdown of how $25M consortium funding is used is suggested. The EAB suggests highlighting planning/intention of utilizing consortium structure to branch the two (Ludwig and Basic Research) high impacts efforts including, partners, leadership, efforts across committees and strategic planning process. Highlight more on impact and growth. Be sure to include the logo for Princeton where credit is given. The EAB suggests emphasis on role of CINJ in translational research or investigators in discussion or director's overview. The EAB references some overcommitment of CINJ faculty and emphasis/need to avoid leader vulnerabilities; a way to navigate this may be to highlight mentoring relationships that foster leadership development.

Cancer Metabolism and Immunology (CMI) Program - Wei-Xing Zong, PhD and Christian Hinrichs, MD
Dr. Wei-Xing Zong, Co-Leader of the Cancer Metabolism, and Immunology (CMI) Program provided an overview of the program. The Cancer Metabolism and Immunology Program has three specific aims: 1) to define the mechanisms of tumor cell autonomous metabolism; 2) to define the mechanisms of nutrient scavenging; and 3) to identify metabolic, physical, and immunologic relationships between the tumor and host. The Program has 51 members with 15 new members. The total cancer relevant NCI funding increased by 26% and had an over 100% increase in other peer-reviewed, cancer related funding. CMI has continued to be highly productive and collaborative, reflected by the total of CMI's publications and multi-PI grants which doubled.

CMI was rated excellent in the last critique and has addressed previous CCSG critiques by 1) increasing the impactful work across the Program (beyond a few high-profile members); 2) increasing large, collaborative grants; and 3) developing plans for cancer immunology. Major discoveries of the Program include 1) advances in cancer cell metabolism; 2) advances in nutrient scavenging; 3) advances in tumor-host interaction; and 4) novel therapeutics. Several studies were highlighted in alignment with three program aims and research responsive to catchment area. Over half of the publications are relevant to catchment priorities including melanoma, breast, and diabetes/obesity. Members obtained several education and training grants within the Program. The CMI Program has benefited from the Cancer Center in several ways including: 1) developmental funds (five new investigator awards and six pilot awards); 2) center administration; 3) shared resources; 4) meetings and retreats; 5) member recruitment and 6) PED. CMI has added value to the Cancer Center as well through 1) Paradigm-shifting research; 2) shared resources; 3) translation; 4) education and training; 5) addressing multiple catchment priorities; 6) Center of Excellence in Cancer Immunology and Metabolism (new faculty, resources, and initiating collaborative projects); and 7) PED. The future plans of CMI include building cell therapy programs, increasing translational research and increasing faculty membership.

Comments/Recommendations:
The EAB suggests more connections between slides/figures and presentation. Being a signature program for the cancer center, the EAB suggests highlighting that this is a signature program and the incorporation of a strategic plan (for clinical and administrative processes). The EAB also suggests highlighting community collaboration and connections earlier in the presentation, not at end. Inter-programmatic collaborations (such as CP) should be clear and consistent. The EAB suggests displaying evolution from the strategic plan. Also, more emphasis on immunology components of this Program as well since it is in the title. The EAB suggests moving critiques upfront based on excellent rating. The EAB suggests linking metabolism and immunologic effects. There were a couple of things missing in the write up such as specific activities to develop multi-PI grants and narrative to connect facts/details of the Program (opposed to bulleted items).

Genomic Instability and Cancer Genetics Program (GICG) - Zhiyuan Shen, MD, PhD, Chang Chan, PhD, and Cristina Montagna, PhD
Dr. Zhiyuan Shen, Co-Leader of the Genomic Instability and Cancer Genetics (GICG) Program, provided an overview of the Program. Three co-leaders temporarily share responsibilities in all aspects of the Program, while each has a leading role in certain aspects of the Program. Co-leaders meet regularly to make joint decisions about the Program. The Genomic Instability and Cancer Genetics Program has three specific aims: 1) to elucidate the core mechanisms that provoke genomic instability, including imprecise repair of DNA damage, DNA replication infidelity, and chromosome segregation errors; 2) to understand the coordination between genome maintenance machineries and intrinsic cellular homeostasis, and their contribution to tumor initiation and progression; and 3) to characterize the cancer genome landscape and gene expression signatures to reveal the therapeutic vulnerability. The Program has 37 full members. NCI funding increased to $4.9 M and other peer-reviewed, cancer relevant funding increased to $10M. Among these, there are 38 R01 equivalent funded projects and 17 multi-PI projects. Program productivity and collaboration continued to increase since the last CCSG visit.

In the last review, the program scored excellent and in response to prior critiques, there have been changes to improve clinical translation of cancer genomics studies, team science, and collaboration with consortium investigators. Zhiyuan Shen provided successful examples and major discoveries in alignment with program aims. Major discoveries have helped to secure additional grant funding. Research responsive to the catchment area was highlighted. Scientific

impact of the Program relies on fundamental mechanistic understanding of how genomics is maintained; scientific highlights of the Program were provided. Education and training within the program include mentors/PIs of training awards at multiple levels; research training; and faculty involved as directors and lecturers for major classes.

The GICG Program has benefited from the Cancer Center in several ways, including: 1) developmental funds; 2) shared resources; 3) meetings and retreats; 4) member recruitment; 5) center administration; 6) PED guidance to diversify research teams; and 7) COE. The GICG program adds value to the Cancer Center through 1) providing a foundation for team sciences; 2) fueling forward and reverse translation and supporting clinical projects; 3) addressing multiple catchment priorities; 4) education/mentorship to trainees in R25, T32, and residency programs, and 5) PED and community outreach. The Program's future plans include promoting synergistic team science, establishing new areas of scientific and technological excellence, and expanding the scope of translational science.

Comments/Recommendations:
There has been tremendous progress in this Program; the EAB suggests highlighting this in the write up. The EAB suggests changing the slides as they were hard to read during the presentation. The science is good. The EAB suggests moving critiques upfront and following with major discoveries (not too much science.) Regarding recruitment, appointments/leadership is not clear. Future plans could include connections with other programs and their involvement with Ludwig/major partnerships. The EAB suggests adding what led to major discoveries and being intentional on this matter. The middle aim loses the link to the Program; tighten up verbiage. One of the main aims are breast cancer mutations and consequences of these mutations, yet little was described in presentation; this needs to be linked more. The list of Co-Directors should be linked to the work they are doing in both the presentation and write-up; there was not a single mention of the newly appointed Co-Director.

Cancer Pharmacology Program (CP) - Stephen K. Burley, MD, DPhil and X.F. Steven Zheng, PhD
Dr. Stephen Burley, Co-Leader of the Cancer Pharmacology program, gave a brief overview of the Program. The shared program responsibilities include translational research, collaborations with CETI and CIPT program members, intra- and inter-programmatic collaborations across CINJ, CP member collaborations across Rutgers and Princeton, research that addresses catchment area priorities, new member recruitment, and promoting IDEA (Inclusion, Diversity, Equity and Access) throughout the membership. The Cancer Pharmacology Program aims to discover and develop more effective cancer treatments through pharmacology-based preclinical research. The Program has three aims: 1) to understand the biology of key molecular targets in cancer that drives cell growth, proliferation, and survival so that they can be effectively targeted for cancer therapy; 2) to determine the modes of action and mechanisms of resistance to anticancer agents; and 3) to discover and develop novel therapeutics and drug delivery technologies for more effective cancer treatment. The CP Program has strategically added 15 new members, drawn from 21 departments, seven schools and two Universities. NCI funding increased to $4.1 M (28% increase) and other peer-reviewed, cancer relevant funding increased to $6.8M (106% increase). Among these, there are 37 R01 equivalent funded projects and 13 multi-PI projects. Program productivity and collaboration continued to increase since the last CCSG. The total number of publications is high with approximately 60% of the papers being generated from external collaborations with other institutions and over 30% are in high impact journals.

The CP Program received a score of outstanding to excellent in the last review. In response to the last CCSG, CP identified opportunities to improve including, increased Princeton representation, increased funding from multi-PI enhanced drug discovery efforts, and expanded translational research/scope. Scientific impact of the CP program includes advances in scientific knowledge, the development of innovative technologies and discovery of novel therapeutics. Dr. Burley highlighted several CP program accomplishments. Since the last review, CP members have made progress in translational research including small-molecule drug discovery and collaboration with bito-tech companies, biologic drugs, and cell engineering. Research relevant to the catchment area is a high priority for the CP Program. There is a COE liaison that works closely with COE to promote catchment area responsiveness. The Program has strong education and training including peer-reviewed training grants, specialized training courses, and faculty development awards.

The Cancer Center and the Cancer Pharmacology Program have a symbiotic relationship. Cancer Pharmacology benefits from CINJ through 1) developmental funds; 2) training programs; 3) shared resources; 4) center meetings/retreats; 5) recruitment of key new members; 6) administrative contributions; 7) catchment area research and COE; and 7) diversity enhancement. In turn, the Cancer Pharmacology Program benefits CINJ with its: 1) translational activities; 2) paradigm-shifting science; 3) addressing catchment area priorities and COE; 4) education and training; and 5) diversity enhancement. Cancer Pharmacology's future plans include: 1) develop cutting-edge technologies and enhance translation efforts; 2) pursue multi-disciplinary team science and 3) targeted recruitment at Rutgers and Princeton with an emphasis on Diversity, Equity, and Inclusion.

Comments/Recommendations:
The Program has made great progress. The slide presentation was great; however, the write-up needs to be more compelling. The EAB suggests capturing data more visually. There are not enough responses from the previous critique. The examples did not show leadership, activities in the center, and mechanisms that drive this work. Overall, the EAB suggests finding a more exciting way to amplify work in both the slides and the write-up. The EAB suggests providing better guidance on efforts related to patient clinical trials, catchment area efforts, and interactions within the CP Program. The ultrasound was referenced in the presentation but the connection to pharmacology is not clear; the EAB and Dr. Libutti suggest moving this technology to CIPT's presentation. More discussion is needed on the definition of pharmacology and the tools used for research endeavors.

Overview of Translational Research - Shridar Ganesan, MD, PhD
Dr. Shridar Ganesan, Associate Director for Translational Research, provided an overview of Translational Research and introduced the Clinical Investigations and Precision Therapeutics Program. As Associate Director of Translational Research, Dr. Ganesan's role is to 1) promote the transition of basic science discoveries across the consortium into clinical and translational studies; and 2) promote tools for translation of important clinical findings into novel basic research programs.

Translational Research has various tools to prioritize research findings including the Committee to Expedite Translational Initiatives (CETI), the REACH Award, and the Precision Oncology platform. The CETI Committee, which is led by Dr. Pasqualini and Dr. Ganesan, includes Associate Directors and Program Leaders. The committee meets quarterly, and program leaders nominate scientific projects within their Program that they feel are most promising for translation to clinical trials. An example of a funded pilot project selected for a translational award was provided. The NIH REACH award supports commercialization of key research findings from Rutgers investigators. An example of a funded pilot project was described and other selected translational awards. Precision Oncology is the main engine for translational discovery and is composed of the molecular tumor board, molecular pathology platforms, and systems/computational biology. A project that has risen out of Precision Oncology was described.

Future plans include: 1) Continue CETI and REACH to prioritize (and fund) translational pilot projects from programs; 2) expand cellular immunotherapy platforms working with the COE, and CMI; 3) build infrastructure for *in vivo* metabolic studies in human cancer with the Ludwig Princeton Branch; 4) expand precision oncology/MTB to partner hospitals; 5) conduct formal workshops on genomic and bioinformatics tools for clinical, population, and basic scientists; 6) expand translation in pediatric oncology; 6) conduct workshops on clinical/translational approaches for basic scientists and 7) hold workshops on clinical/translational approaches for basic scientists.

Comments/Recommendations:
This is a very well put together program and processes/examples described are strong. The EAB suggests defining the tools for translation in the slides and include a discussion on bi-directional interaction for program/faculty. Clarify that this is not a case discussion tumor board but a scientific collaborative discussion.

Clinical Investigations and Precision Therapeutics (CIPT) Program - Shridar Ganesan, MD, PhD and Wadih Arap, MD, PhD

Dr. Shridar Ganesan, Co-Leader, Clinical Investigations and Precision Therapeutics Program, gave a brief overview of the main critiques, the Program Leaders' plans to address these critiques, and the future goals of the Program. The specific aims of this Program are to: 1) target cell death and survival pathways in cancer (collaboration with CMI and CP); 2) target DNA repair and cell cycle checkpoint abnormalities in cancer (collaboration with GICG and CP); 3) to target the immune microenvironment in cancer (collaboration with CMI and CP); and 4) investigate markers of response and resistance to cancer therapy (collaboration with CP, CMI, and GICG).

In terms of the Program membership profile, CIPT has 29 full members. Total cancer relevant funding and peer-reviewed grant support has continued to increase since the last renewal ($5.6M). Program productivity and collaborations have also continued to increase and inter/intra publications remain strong. Members published over 900 papers and high-impact publications. The Program scored excellent to outstanding in the previous CCSG review, however, certain critiques were highlighted. The Program's response to these critiques includes the following: 1) significant funding increase since year of record driven by increased R0l and MPI R0ls; 2) expansion of precision medicine including regular Molecular Tumor Board meetings and multiple high impact translational discoveries leading to grants and publications; and 3) multi-project grants in partnership with GICG Program.

Scientific impact of the Program includes a novel biomarker of response and resistance to targets for immunotherapy, development of new treatment approaches, and high impact investigator initiated clinical trials at CINJ. Dr. Ganesan highlighted several CIPT Program accomplishments and research responsive to the catchment area. Additional examples of catchment area responsiveness include collaboration with COE and bi-directional communication with the community. Education and training within the Program include fellowship training in oncology, molecular tumor board, Bioconnect/BOLD, and mentoring of graduate students/post docs.

CIPT adds value to CINJ by 1) providing a key hub for translation of center science and inter-programmatic clinical collaboration; 2) Precision Medicine's efforts and MTB/platforms for education and collaborative research; 3) opportunities for national validation of early phase trials through ET-CTN and Big10 collaborations; 4) policy impact; 5) education/fellowships in medical/surgical oncology; 6) PED, and 7) COE. CIPT benefits from the center through 1) developmental funds; 2) support services; 3) meetings/retreats; 4) recruitment of key new members; 5) administrative contributions, 6) PED; and 7) COE. The future plans for CIPT include: 1) Phase I Program; 2) development of a cellular immunotherapy program; 3) increasing translational studies from Ludwig Princeton Branch and, 4) recruit to expand translational research in pediatric oncology.

Comments/Recommendations:
Overall, great job and teamwork. The progress and strength are clear. The EAB suggests clarifying the hematologic malignancy research, specifically where clinical investigators fit within program and the structure of clinical teams. It would be great to add a visual of involved scientists, funding, and clinical researchers to show examples of these interactions. The EAB suggests clarity on how research can be found from the clinical front. The EAB suggests adding accruals to clinical trials. Involvement in ET-CTN is unclear and should be included. The EAB suggests clarity on explaining components and purpose of molecular tumor board. The EAB suggests highlighting catchment area relevance earlier in the presentation.

Clinical Trial Infrastructure, CPDM, PRMS, DSM - Howard S. Hochster, MD
Howard S. Hochster, Associate Director for Clinical Research gave an overview on clinical trials infrastructure and the protocol review systems for CINJ. The overall mission of Clinical Trial Infrastructure is to: 1) conduct state-of-the-art trials based on translational research; 2) train new generations of clinical investigators; and 3) deliver these state-of-the-art trials to the people of New Jersey. Clinical research leadership and Disease Specific Group (DSG) leaders were visually outlined.

The specific Clinical Trial Infrastructure aims are to: 1) foster interventional accruals working with COE for underrepresented populations; 2) unify clinical trials operations between Rutgers and RWJBH; 3) increase accrual and engagement at RWJBH sites; and 4) integrate Cancer Center committees (SRB and HROC).

Specific aims are to: 1) provide the infrastructure for unified and broad clinical research operations throughout the RWJBH system; 2) ensure and promote strong faculty engagement to conduct clinical research at CINJ and all RWJBH sites; 3) work jointly with COE to promote catchment area directed research with a focus on underrepresented

populations; and 4) train and mentor faculty, fellows, and staff on clinical trial conduct. Dr. Hochester continued with discussing Clinical Protocol and Data Management (CPDM) and the CINJ Office of Human Research Services (OHRS). The clinical components in the previous review scored exceptional to outstanding and several strengths were credited including the work of CPDM, DSM (Data and Safety Monitoring), and PRMS.

The program's main goal is to create a unified clinical trial infrastructure to conduct trials across the system. Currently, there are 187 open trials and a 300% increase in accrual in CY2022. The vision is to have one IRB, one contract/budget process, one EMR, one CMTS, one pharmacy, and one clinical trials and quality assurance office. There are 14 adult hospitals stretching across Jersey City down to Toms River, making CINJ part of the largest healthcare system across the state. There are clinical trials open and actively accruing at nine sites. A statewide research office was established to create a single clinical research operation. Several operations and processes were described by Dr. Hochester. In addition, the Program engages physicians and staff with various meetings and with protocol activation offices across the system. To staff this effort, staff/leadership has expanded with a total of 178+ FTEs within the Office of Human Research Services. Activation and enrollment metrics are tracked and have improved over the last year. A visual snapshot of the clinical trial portfolio (institutional, externally peer reviewed, industry, and nationally) was shown.

There is also a broad portfolio of investigator-initiated trials through CINJ and partners. Developmental funding has been provided for investigator-initiated trials through an RFA process. Investigator-initiated treatment clinical trials were displayed. To improve recruitment and retention, portfolio profiles and accruals were described across the RWJBH system. A systemwide focus on trials was accomplished by expanding DSG participation across sites; minority-focused efforts with COE; and several education/training efforts across the system. The first annual oncology service line summit (first in-person event since COVID started) was extremely successful and included DSG lunch breakout groups to promote interactions between CINJ and system physicians in developing clinical trials. Strong PR efforts and marketing strategies have been utilized to create more trial opportunities available to the public.

Regarding Data and Safety Monitoring (DSM), the CINJ Human Research Oversight Committee (HROC) reviews safety reports, quarterly reviews from each DSG, accrual monitoring, and audit review. An external Data and Safety Motoring Committee reviews all HROC minutes and meets annually. Quality assurance team apparatus was extended to include all system sites and activity. The Scientific Review Board (SRB) PRMS protocol flow was described. The SRB reviews scientific merit, study design, feasibility, and fit into DSG portfolio (overlap), and scores priority. There was a systemwide increase by 300% in 2022 accruals. Regarding inclusion of women, minorities, and patients across the lifespan, interventional treatment trials were described based on race and ethnicity characteristics. Gender distribution is as expected, with a higher number of female accruals due to a strong breast cancer trial portfolio. Across the lifespan metrics are as expected, and the Program will be looking at more protocols within the elderly population. Minority enrollment to interventional therapeutic trials at CINJ has increased by 57% between 2017-2022. Increases in pediatric accruals were also made. The clinical trials office is involved with several community outreach and engagement efforts.

The Clinical Trials infrastructure future directions include: 1) establishing a recruitment office to match patients to existing trials; 2) continuing joint efforts with COE; 3) establishing a training center to support current onboarding activities; 3) continuing to support and expand IITs- translational, cellular, and novel therapies; 4) continuing to promote “culture” of clinical research at all sites; and 5) reaching a goal of 1,000 or more accruals over the next grant period.

Comments/Recommendations:
Overall, the presentation was great. The EAB recognizes the impact of this Program’s unity across the state and expansion of the footprint to community hospitals/patients. The EAB suggests clarifying the vertical integration between translational research/CIPT and the clinical trials program. The presentation would be great if an example of the involvement of the review process was shown. The EAB mentions it would be helpful to show example(s) of an idea generation from bench to lab. The maintenance of high clinical trial accrual throughout the pandemic is an accomplishment to highlight. Several clarifying questions were asked regarding protocol, membership, and review of disease teams. The EAB suggests more clarity in presenting interventional treatment trial accrual equity.

Cancer Research Training and Education Coordination (CRTEC)– Edmund C. Lattime, PhD and Sunita Chaudhary, PhD
Dr. Edmund C. Lattime, Co-Leader of the Program and Associate Director for Education and Training provided an

overview of CRTEC. CRTEC has three aims: 1) to develop and implement programs to train the next generation of basic, clinical, and population researchers and the broad-based student population; 2) provide cancer center supported seminars, conferences, and retreats to impart the most up-to-date information for the education of trainees, faculty, and the community; and 3) provide state-of-the-art career enhancement opportunities to Rutgers Cancer Institute junior faculty and trainees; and, 4) a focus on increasing diversity through research training and career enhancement opportunities.

In response to the previous critique, 1) multiple training grants have been secured and additional submissions planned; 2) new consortium-wide programs have been developed; and 3) cancer center led initiatives have clearly been identified. Since the 2018 review, there have been a number of additions to strengthen the Program including: 1) increased institutional peer-reviewed training grants supported by NCI to provide training and professional development support to teachers and students (high school and undergraduate) of underrepresented groups; 2) multiple NIH grants, such as T32 post-doctoral training program; 3) ongoing T32 applications for education and mentoring activities with Princeton University; and 4) increased Pathway to Independence awards (pre-doc and post-doc) from 0 to 7. CINJ also provides a myriad of clinical training programs. Students, trainees, and faculty have opportunities for cross-collaboration interaction, retreats, and in-person discussions.

Dr. Sunita Chaudhary presented the remainder CRTEC, demonstrating that it offers many programs and academic curriculums from middle and high school through junior faculty, including residency programs and workshops. Trainees receive structed mentoring and must provide the oral and written skills needed. Joint research retreats and symposia are also sponsored through CRTEC and grant funding. In alignment with strategic goals of the institute, the RUYES (Rutgers Youth Enjoy Science) program targets high school teachers, students, and trainees from underrepresented backgrounds. Community outreach activities aim to increase science and health education in the community.

Future plans of the Program include 1) developing additional joint consortium-wide initiatives (such as R25 and T32 training grants); 2) developing additional collaborative-wide initiatives with community outreach and engagement; 3) developing additional collaborative initiatives with COE and PED; and 4) increasing the number of Individual Career Development awards for developing independent careers of junior faculty.

Comments/Recommendations:
Overall, the EAB commends the progress, improvement, and presentation of the CRTEC Program. The EAB suggests adding the need for various activities and how the Program meets these needs. An advisory committee would be helpful to highlight (including people from Princeton University) promotions, sponsorship, certifications, and details that tell the story/progression of CRTEC. Connections/partnerships with clinical research are important to include in the presentation. The written document could also use figures to connect with activities described, in addition to specific examples/outputs (research specific highlights). The EAB asks for clarity on long term metrics and impact of grant funded and mentorship programs. Co-mentorship with community partners and post-docs is important to reference, especially in research.

Plan to Enhance Diversity – Haejin In, MD, MPH, MBA
Dr. Haejin In, Associate Director for Diversity, Equity, and Inclusion (DEI) gave an overview of plans to enhance Diversity. The office is led by Dr. In and Co-Director, Rachel Born. A timeline of progress was highlighted, including origins of DEI focus as a major strategic initiative after the George Floyd murder. The Diversity Strategic Plan was announced and provided an infrastructure to develop, implement, and lead a multi-pronged effort to ensure diversity within the faculty, scientific members, trainees, and staff of the cancer center. The work of this office was launched in October 2021 and began with observations of CINJ culture and work environment. Member and leadership demographics were highlighted (CINJ vs. national). There is a need to diversify cancer center leadership across the nation. CINJ is severely lacking in this area. Utilizing CINJ membership/demographic data, the DEI office has a three-aim approach: 1) to develop a sustainable, equity-minded infrastructure to address diversity of members; 2) focus efforts to diversify workforce, leadership, and advisory boards; and 3) create the institutional environment and culture that is necessary to support and sustain the goal of diversifying the CINJ research workforce.

In support of the first aim, the cancer center 1) has established the DEI office with hiring a full-time Program Director and Program Coordinator; 2) has organized faculty and leadership advisory committees for DEI activities; and 3) is creating a data monitoring program to track DEI metrics throughout the consortium. Reports and dashboards will be

developed to understand CINJ priorities and progress.

In support of the second aim, the office 1) identifies threats to equity and diversity by developing key DEI metrics that provide insight on specific focus areas; and 2) reviews leadership selection criterion and develops strategies to improve the diversity in cancer center leadership that will inform the need for new strategies, processes, and programming. To diversify leadership, the DEI office will work with current leadership to identify and groom a diverse pool of talented, early-stage clinicians and scientists who show aptitude for leadership, and tools for succession planning.

The DEI office plans to build and foster an environment to support all efforts for the other aims. In support of the third aim, the office plans to 1) create a cancer center wide DEI training program to address the spectrum of educational needs of the organization; 2) cultivate inclusion through language, imagery, programming, and materials; 3) establish affinity groups to organize and promote community-specific needs; and 4) develop events and collaborations that provide opportunities for building cultural awareness, humility, and appreciation across departments, organizations, communities, etc. Partners in addressing faculty diversity include internal, affiliated, and national.

Comments/Recommendations:
The EAB commends establishing the DEI office, leadership, and data metrics. The EAB suggests re-organizing the aims/specificity of slides and discussing how the aims/goals aid to advance progress on equity and diversity at CINJ. The PED is an opportunity to highlight how the office is challenging the status quo and how the office plans to support all offices/leadership. The EAB suggests aligning the Program's plans with institution's diversity plan and elevate all interactions. The EAB suggests discussing ways to support the LGBTQIA+ population. The EAB suggests focusing also on faculty burnout within an affinity group. The NIH definition of diversity also includes socioeconomics; the EAB suggests including all aspects of diversity, not only race and gender.

Shared Resource Management – Adam C. Berger, MD, FACS and Ioannis Stasinopoulos, PhD
Dr. Adam Berger, Co-Leader, and Associate Director for Shared Resources provided a brief overview of the Program. The mission is to maintain and enhance shared resources, instrumentation, and services that provide researchers with access to technology, centralized intellectual and technical resources, and essential technical support that will drive innovative cancer center research.

To expand upon established CCSG shared resources, a developing resource is in organoid development. Changes to shared resources include: 1) the flow cytometry core has been administratively merged into the immune monitoring core; 2) the Program decided not to continue Research Pharmacy as a shared resource; 3) new sequencing service provider for Comprehensive Genomics; and 4) request of CCSG support for the new CPODS shared resource. In response to the 2018 critique in administration and SR (Shared Resources) sections, more consistent annual satisfaction surveys and service development surveys are implemented for actionable feedback in alignment with member needs. In response to chargebacks, publications, grants, outreach, and searchable biospecimen inventory, SR has developed many activities to address critique.

The Shared Resources Program is supported by pillars managed through 1) review of policies discussing scientific, operational, and financial principles guided by SR advisory for each resource; 2) reporting outreach metrics (survey findings) to members annually and dissemination with advisory directors; 3) reporting to Rutgers Cancer Institute leaders (Research Leadership Council); and 4) planning and evaluation with External Advisory Board and *ad hoc* expert committees (including administration and faculty).

Future plans are to: 1) recruit a programmer/data manager; 2) further integrate with COE and CRTEC to promote SR utilization; and 3) improve shared resources by integrating new technologies (such as single-cell resolution mass spectrometry imaging) and hiring a Biostatistician.

Comments/Recommendations:

The EAB suggests re-organization of slides, keeping governance in mind. Include grant/programmatic examples of SR ccontributions. Connections to the strategic plan are important to highlight. The EAB suggests including membership and recruitment. Output of publications based on membership was mentioned as a potential liability. The EAB suggests clarity on data warehouse position within bioinformatics or biostatistics. The EAB suggests telling a story of people helping people, and less bullet points (same for all presenters/divisions).

Next Meeting
The next External Advisory Board meeting is expected in the first half of 2023.

Adjournment
Motion to adjourn was made by Dr. Johnson and was passed unanimously.

Respectfully submitted by,
Dominique Graham
Secretary for the meeting