

Rutgers Cancer Institute of New Jersey External Advisory Board Meeting

Minutes of the Meeting June 25, 2019

A meeting of the External Advisory Board (EAB) of Rutgers Cancer Institute of New Jersey (CINJ) was held on Tuesday, June 25, 2019 in the Auditorium, at 195 Little Albany Street in New Brunswick, NJ.

EAB Members - Present		
Candace Johnson, PhD	I. David Goldman, MD	Peter J. O'Dwyer, MD
Richard Baer, PhD	Dorothy Hatsukami, PhD	Andrew F. Olshan, PhD
Michael J. Becich, MD, PhD	Ernest Hawk, MD	Stephen M. Schwartz, PhD
David Cella, PhD	Peter J. Houghton, PhD	Marcy B. Waldinger (WebEx)
Junjie Chen, PhD	Cheryl Jernigan, CPA, FACHE	Jeffrey S. Weber, MD, PhD
Ralph Debardinis, MD, PhD	Scott Lippman, MD	Danny R. Welch, PhD
Eric Fearon, MD, PhD	Benjamin G. Neel, MD, PhD	Theodore J. Yank, MHA
Stanton L. Gerson, MD	Adekunle Odunsi, MD, PhD	
EAB Members – Absent		
Cory Abate-Shen, PhD	Peter M. Glazer, MD	David M. Livingston, MD
Melissa L. Bondy, PhD	Chanita Hughes-Halbert, PhD	Thomas J. Lynch, MD
Robert DiPaola, MD	Maha H.A. Hussain, MD	
Invited Participants - Present		
Elisa V. Bandera, MD, PhD	Hahn Kim, PhD	Zhiyuan Shen, MD, PhD
Stephen K. Burley, MD, DPhil	Anita Y. Kinney, PhD	Linda Tanzer
Chang Chan, PhD	Edmund Lattime, PhD	Eileen White, PhD
Sunita Chaudhary, PhD	Steven Libutti, MD, FACS	X.F. Steven Zheng, PhD
Cristine Delnevo, PhD, MPH	Sharon Manne, PhD	Wei Xing Zong, PhD
Shridar Ganesan, MD, PhD	Janice Mehnert, MD	
Howard S. Hochster, MD	Paul Novembre	

Call to Order

Dr. Candace Johnson called the meeting to order at 8:07 am. She welcomed the Board and solicited member introductions.

Review and Approval of the Minutes

The minutes of the March 14, 2018 meeting were reviewed. Upon motion duly made, seconded and unanimously carried, the minutes of the meeting were approved.

<u>Director's Overview</u> - Steven K. Libutti, MD, FACS

Dr. Libutti welcomed the Board and thanked Dr. Johnson for continuing to serve as the External Advisory Board Chair. Dr. Libutti invited the EAB to examine the Rutgers Cancer Institute of New Jersey's response to the CCSG reviewers' critiques as well as evaluate CINJ's concerns with reference to the overall mission and strategic direction of CINJ. Dr. Libutti reviewed the status of CINJ and briefly discussed the results of the 2018 CCSG site visit as it relates to the six essential characteristics of an NCI-designated cancer center. CINJ is currently four years away from the next CCSG site visit.

The goal for this meeting was to present Rutgers Cancer Institute of New Jersey's program direction, responses to the Center's critiques, and the overall strategy to improve CINJ prior to the next CCSG renewal. Each of CINJ's program leaders and other scored component leaders were tasked with providing detailed plans for the next five years.

Dr. Libutti went onto discuss future plans to expand outpatient capabilities across the system. Architectural planning for an outpatient cancer center on the campus of the Jersey City Medical Center has been approved. This center will be a 75,000 to 100,000 square foot outpatient facility where, infusion, radiation oncology, imaging, and outpatient visits will take place. There are also plans for a similarly sized outpatient cancer center in Monmouth County on the campus of Fort Monmouth; an outpatient facility at St. Barnabas Medical Center in Livingston, NJ; and a 600,000 square foot building that will primarily operate as a cancer hospital with inpatient/outpatient services, research laboratories, support services, and a new vivarium in New Brunswick, NJ.

The results of the site visit yielded an Impact Score of twenty-eight and an excellent to outstanding rating for the Cancer Institute. Characteristics such as organizational capabilities and developmental funds scored outstanding; transdisciplinary collaboration/coordination and cancer focus scored outstanding to excellent; institutional commitment scored exceptional; center director outstanding to exceptional; and physical space exceptional to outstanding. As a result of philanthropic activity, CINJ will launch the Cancer Immunology and Metabolism Center of Excellence.

Organizational capabilities were scored outstanding. Currently, there are a series of intramural and extramural Advisory Councils with whom CINJ works closely. The Research Leadership Council is essentially an organization that is comprised of all CINJ program leaders and associate directors. CINJ also has an External Advisory Board, an Officers Cabinet, an Internal Advisory Board, and a Consortium Steering Committee. Modifications have been made regarding the organizational structure of CINJ based on comments made at the last CCSG site visit. Considerable strengths were noted at the site visit including: 1) strong leadership;2) effective advisory committees; and 3) a well described organizational structure. Critiques of CINJ's organizational capabilities included: 1) the need for more specific details on accomplishments; and 2) the need to add new members to the EAB with additional expertise in transdisciplinary and multi-investigative science. CINJ engaged an external consultant, ECG, to evaluate organizational structure and make recommendations on improving leadership efficiency. As a result of the evaluation, the restructuring of reporting relationships has begun. This process includes naming a new Chief of Staff and a new Associate Vice Chancellor for Cancer Programs. New members of the EAB have also been identified and invited to serve on the Board. Ongoing documentation of organizational activities and accomplishments have been improved. There has also been changes based on ECG's recommendations in the CCG organizational chart, the most notable changes include: 1) the redistribution of the Associate Directors' roles and responsibilities in certain programs; 2) the onboarding of Dr. Adam Berger as the new Associate Director for Shared Resources; and 3) recruitment of an Assistant Director of Shared Resources to have financial oversight of CINJ's Shared Resources.

Transdisciplinary collaboration and coordination were scored as outstanding to excellent. At the time of the site visit, an increase in multi-PI awards; the uptick of cancer relevant and collaborative publications; and the increase of translational research was presented. The critiques of transdisciplinary collaborations mentioned:1) the improvement of transdisciplinary collaboration due to a 5-fold increase in multi-PI grants; 2) the increase in examples showing evidence to high impact transdisciplinary science; 3) the moderate increase in collaborative publications within program areas; 4) the lack of multi-project grants such as P01s and SPOREs; and 5) the need for a clear and defined pathway for the translation of basic science discoveries into the clinic through the CIPT program. As a result of this critique the action items established for improvement were: 1) to improve opportunities for inter-programmatic collaborations leading to grants and publications through focused deployment of pilot funds; 2) to invest \$2M to support GICG program's efforts to develop a competitive P01 application with submission planned for the Fall of 2019; 3) to establish a working group to explore feasibility of a topic SPORE in Cancer Metabolism; and 4) to establish a committee chaired by the Associate Director for Translational Research to vet projects across all five research programs.

Cancer focus scored outstanding to excellent. CINJ has decreased its current CCSG Programs from six to five, was presented at the site visit. An improvement in overall cancer focused research funding and NCI research funding compared to the prior renewal was showcased. The critique of the cancer focus mentioned that although the full outcome of recent initiatives to improve translational research has not yet fully been realized, there is clear evidence of their effectiveness as measured by metrics. However, the cancer focus of some grants included in data tables and program metric is not well justified. CINJ is now working on an objective set of criteria to be uniformly employed and most importantly, well described as to how CINJ determines the cancer focus. Rutgers Cancer Institute of New Jersey will institute the following action items, in order to improve the clarity of its cancer focus: 1) refine the process for determining cancer relevance; 2) develop objective metrics and a clear justification for assigning cancer relevance; 3) cull current projects that are not clearly aligned with the cancer focus of that particular program; 4) invest pilot funds to promote applications to the NCI, for grants supporting investigators in each program.

Institutional commitment scored exceptional during the site visit. CINJ presented that there are annual institutional commitments from Rutgers University and Princeton University. There is also sustained support from the State of New Jersey and the health system, which totals over \$68M annually. Institutional commitment received the following critique: 1) there is a strong institutional commitment from the State, both Universities, and the health system; 2) there is significant authority for the Director in deploying resources; and 3) there is a clear commitment to growth of the physical plant as well as investment in programmatic growth. Dr. Libutti presented the following action items after the critique: 1) the health system has committed approximately \$800M to the construction of a 600,000 square foot cancer hospital; 2) the State of New Jersey has committed \$36M in the FY20 Governor's budget to be deployed at the Director's discretion in support of programs and infrastructure; 3) Rutgers University has committed support for continued recruitment of new scientists through the Chancellor's Scholar Program; 4) a new plan has been implemented for mobile units to provide greater coverage across the catchment area to enhance outreach and engagement; and 5) CINJ plans to advocate for increased support from the State of New Jersey for Screen NJ.

The Center Director scored outstanding to exceptional. The actions items included were: 1) restructuring of direct reports to improve efficiency of the management structure; 2) ongoing efforts to improve systemwide leadership structure; 3) maintaining a focus on building and enhancing core elements of research programs; and 4) the initiation of a strategic planning process that will continue over the next 12 months.

Development funds scored outstanding. The critique noted that a yield on the investment of developmental funds has been high with substantial peer reviewed funding achieved by six recipients; the reliance on strong candidates resulted in investment in only three of five programs, suggesting more intentional targeting to individual or clustered priorities should be considered; and the concern that funds intended to enhance small molecule screening have not fully matured. The action items put in place since the site visit include: a new process for escalating program issues and identifying program needs; the continual development of the Small Molecule Screening Program; the improvement of the deployment of funds; and increasing the number of pilot award opportunities across the programs.

Dr. Libutti briefly discussed the plan to launch a Cancer Immunology and Metabolism Center of Excellence within CINJ. This plan is the result of significant philanthropic activities. Dr. Libutti feels that CINJ is well positioned to open the Center of Excellence due to the Cancer Institute's strength in Cancer Metabolism. CINJ will provide a unique concentration on the study of Cancer Immunology. The Cancer Immunology and Metabolism Center of Excellence will focus on metabolic alterations in immune cells that are required for function; metabolites in tumor cells that regulate immunity; microbiome that controls the response to immune therapy; nutrition and obesity that control inflammation and cancer; and metabolites in the tumor microenvironment that control immune response. A separate external leadership committee has been formed to provide insight regarding the Center of Excellence. A \$50M proposal is projected to become available within the next two months. This will allow for the recruitment of a nationally recognized leader in cancer immunology to partner with Dr. Eileen White as co-director.

Comments/Recommendations:

The EAB commended Rutgers Cancer Institute for a successful site visit. One of the biggest issues that the Cancer Institute has are the lack of PO1s, SPOREs, etc. Receiving these types of grants will help to make other issues minor. The donation of \$50 million to the Cancer Immunology and Metabolism Center is impressive but the EAB is concerned about Dr. White's role as the co-director. Rutgers Cancer Institute's organizational chart should better reflect leadership's responsibilities. The administration review is a challenge and has an impact on organizational activity, the Cancer Institute should not have these issues. The dollar commitment of Princeton University to CINJ should be presented more thoroughly. The faculty appointment process is confusing and needs to be clarified. Overall the Cancer Center is on a great trajectory with many significant strengths. A number of issues that have been raised in the past few years continue to be cited. The lack of significant program project grants and SPOREs has been discussed in the past and yet CINJ has not been able to organize meaningfully in this regard. Efforts to provide pilot funding to stimulate this activity must be identified and utilized. The Princeton consortium has always been considered a strength, however it is unclear how involved Princeton is due to the lack of participation of their faculty at this and previous EAB meetings. Also noted is the recurring comment regarding Dr. White's involvement in too many programs and center activities. The goals described in the Director's Overview were presented as an extensive list without a prioritization strategy or an articulated direction in which CINJ will move.

While the EAB acknowledges that the meeting was meant as a launching point for a new strategic plan, it is critically important that CINJ focuses specifically on how they move forward. The Center of Excellence in Cancer Immunology and Metabolism will require tremendous investment but it can also distinguish the Rutgers Cancer Institute apart from other cancer centers; they are uniquely poised to drive this research, a philanthropic investment of \$50 to \$100M and the right leadership will be critical to making this potential a reality.

The commitment to a new clinical and research facility is extremely impressive. It is important to note, however, that it is unclear how research activities will be supported over time, beyond state appropriations and grant funding, especially given the evolving relationship between the University and the health system. While the investment described at the time of the site visit from the health system of \$100M over five years was impressive and clearly drove the score in a positive direction, it is unclear what the support from the health system and Rutgers will be beyond that five-year investment. It will be important for Dr. Libutti to have and express a clear plan for ongoing institutional support moving forward at the time of the next renewal. The EAB looks forward to hearing a well-articulated fiscal plan with clear mechanisms for ongoing investment by both Rutgers and RWJBarnabas Health at next year's EAB meeting. The importance of this for the next competitive renewal cannot be overemphasized.

Rutgers Cancer Institute must continue to be nimble in its ability to recruit and retain outstanding faculty, not allowing the evolving institutional structure to impinge on this ability in any way. The role that the Rutgers University and Princeton University schools play in faculty recruitment and affairs is unclear. CINJ cannot be subordinate to a school or department; this relationship may need to be simplified in a manner similar to that of centers such as MSKCC. The EAB feels that Rutgers Cancer Institute, especially in light of the plans for a new facility, is moving towards becoming a freestanding facility versus a matrix center. CINJ's processes and mechanisms for faculty recruitment, retention, and support will need to reflect this evolving structure. The EAB was unclear as to why resident faculty of CINJ must hold a school appointment and their promotions be dependent upon administrative structures within the school. This system seems to be cumbersome and could risk limiting the ability to be competitive in an academic and clinical market. Thought should be given to approaches that will streamline or redesign this process. Consideration should be given to a system where academic appointments in the various school departments are separate and distinct from the hiring process at CINJ. Rutgers Cancer Institute of New Jersey appears to be responsible administratively and fiscally for its faculty, such a system should allow for more efficient hiring and advancement of the faculty in a very competitive environment. Revamping this process should be a priority for the new strategic plan.

Although this EAB meeting was not structured as a site visit presentation, developing the discipline for these meetings to stay within the allotted time frames indicated on the agenda is generally good practice. Several

presentations ran over the indicated time slots, which limited opportunities for EAB members to pose their questions. To ensure that EAB presentations meet their time requirements, presentations should be submitted further in advance to Dr. Libutti or Ms. Linda Tanzer.

Community Outreach and Engagement - Anita Kinney, PhD, RN

Anita Kinney, Associate Director for Community Outreach and Engagement gave a brief overview. New Jersey is the most densely populated State in the United States. There are many racial, ethnic, and socioeconomic disparities in cancer incidence, mortality and access to care. In terms of identifying catchment area issues such as socioeconomic disparities, data shows that there is a high percentage of minority residents, particularly in the central and northern parts of the State.

New Jersey has a higher population density with less access to cancer care in the southern and northwest areas. Global State poverty and education figures in New Jersey are very low compared to other states but do still exist in the southern counties and counties near New York City. Cancer burden is defined by incidence and mortality. New Jersey has the fifth highest incidence of cancer among the 50 states. Southern New Jersey has the highest cancer burden in the State. Cancer screening disparities span across the State with mammography screening and colorectal screening below the national average in many counties. Projects, research, and outreach endeavors address the inequities and disparities involving the high cancer burden and low cancer screening rates. Community Outreach facilitates inclusion of underserved populations in research through the cancer registry to survey cancer in different communities; Screen NJ to enhance screenings; and a CINJ Community Advisory Board.

There are four specific aims of Community Outreach and Engagement: 1) assess and monitor the cancer burden in the catchment area to identify needs and guide in-reach, outreach, and scientific inquiry; 2) use knowledge of the cancer issues in the catchment area to stimulate new scientific discoveries and develop evidence-based interventions; 3) accelerate the dissemination of policy recommendations in collaboration with NJ communities to reduce the cancer burden and related disparities regionally, nationally, and globally; and 4) foster strategic research and clinical trial participation relevant to the NJ cancer burden across CINJ and the Rutgers RWJ Barnabas Health system.

The strategic goals within Community Outreach and Engagement over the next three years are to: 1) bolster community outreach and engagement; 2) continuously monitor cancer burden in the catchment area and identify community needs; 3) forge new partnerships and engage with New Jersey community members, organizations, and providers; 4) expand and sustain Screen NJ; and 5) conduct research that addresses catchment area burden and advances cancer health equity.

Ongoing studies show the use of claims, clinical informatics data, and provider engagement characterize the cancer burden and identify/address disparities. The current plan emphasizes a sequence of actions to bolster outreach and engagement, assess catchment area needs, forge new partnerships, sustain clinical screening services, and inform research.

Comments/Recommendations:

The EAB called Community Outreach and Engagement (COE) exceptional. The program is a model for other programs across the United States. The delivery medical service is a wonderful idea but this service needs to ensure that it will reach all underserved populations within the catchment area. COE leaders should consider stronger relationships with Princeton faculty and Princeton's programs. The modification of the functional and organizational chart to show Community Outreach and Engagement's connections to all of the other programs at CINJ is vital. The CPC program and the program's activities should be informed by, but distinct from, the COE unit's plans and activities. A clear delineation of the distinct roles of each of these entities would be helpful. The same principle applies to infusing COE guidance and activities into basic science and clinical translation programs. For all programs, the communications, learning, and guidance should be bi-directional between and among programs, including COE. Adding details about the Community Advisory Committee's structure and

operations would be beneficial. The catchment area is well defined and appropriately justified as the State of New Jersey. It is evident the Center is focused on the major cancer risk factors and critical cancer outcomes relevant to its diverse statewide constituency. The EAB encourages the COE and Center leadership to continually monitor these identified priority inequity targets in breast, lung, and other cancers. The action plan for this program is thoughtfully prepared and extremely ambitious. CINJ needs to prioritize Center actions and create an implementation timeline. CINJ should further explain plans to address other issues such as the catchment area's needs, the execution of the programs' priorities, development of an implementation timeline, and monitoring of progress. CINJ has an impressive infrastructure with a wide range of partnerships to support COE activities. A distinction should be made regarding COE responsibilities and the responsibilities implemented by others. The clarification of responsibilities would highlight the breadth of CINJ's organizational leadership and the teams working to achieve action plan goals. Specification regarding the financing of the action plan would address the critical concern about the efforts' sustainability. Strategic implementation and operational details will be critical in ensuring these plans reduce troubling risk behaviors and cancer trends of the catchment area. It would also be helpful to learn more about primary prevention efforts such as policy and public education that are planned at the population level.

<u>Introduction to Population Science</u> – Sharon Manne, PhD

Sharon Manne, Associate Director for Population Science gave an overview of the new initiatives for Population Science. In Dr. Manne's role as Associate Director, she has a number of different functions; most importantly, to facilitate research across programs and the State to maximize Population Science's impact. Dr. Manne's leadership was commended in the last peer review, due to her part in building much of the division and the prevention programs over the past decade.

Three new initiatives have been implemented to enhance research: 1) the Cancer Survivorship center which foster's the development and implementation of evidence based practices to improve quality of life and optimize outcomes for cancer survivors; 2) the RWJBH Population Research Network which helps reduce cancer risks and improve health and wellness by integrating Population Science's research into the network; and 3) the strengthening of the Princeton consortium through identifying key areas of joint interest, forming a Population Science Joint Steering Committee, and holding a joint retreat in the Fall of 2019.

Comments/Recommendations:

Prevention and Population Sciences efforts are exceptionally well led by Dr. Sharon Manne. Dr. Manne is an experienced peer-reviewed funded researcher and an expert in behavioral and population-level interventions. The importance of the three initiatives are strongly endorsed. These initiatives specifically address several criticisms identified in the last peer review and should further strengthen the CPC Program.

<u>Cancer Prevention and Control Program (CPC)</u> – Cristine D. Delnevo, PhD, MPH and Elisa Bandera, MD, PhD

Cristine Delnevo, Co-Leader of the Cancer Prevention and Control Program, gave a brief overview of the Program's goals within the next three years. The Cancer Prevention and Control Program aims to increase interprogrammatic collaboration with CCSG research programs; implement annual pilot mechanisms for interprogrammatic collaborations; establish an annual retreat with clinical and basic science programs; convene cross disciplinary working groups; facilitate inter-programmatic publications; support junior faculty in cancer epidemiology; and explore the possibility of an additional Population Science Program (Tobacco Control Program). The CPC Program has 26 members, a rising funding base, and increased scientific productivity. There has been progress within the Cancer Prevention and Control Program to increase inter-programmatic collaborations with CCSG research programs: 1) The CPC and CIPT joint retreat took place in September 2018; 2) two calls for pilot proposals have been issued; 3) working groups for prostate and breast cancer have emerged; 4) a Tobacco Control working group has been formed to identify priorities and aims; and 5) SWOT analysis for Cancer prevention and Control Program as well as a Tobacco Control Program have begun. The Cancer Prevention and Control Program also plans to leverage clinical informatics, enhance cancer epidemiology, and grow population science over the next three years.

Comments/Recommendations:

The Cancer Prevention and Control Program responded well to the critiques that it received during the latest CCSG visit. The progress with increasing inter-programmatic collaborations should be followed closely. The organizational chart for this program needs to be more defined and COE should relate to not only this particular program but all of the other research programs. The focus for epidemiology and inter-programmatic collaborations needs to be explained. Diseases specific to this program must be defined. Discretionary funds should be used in a non-democratic way to aid in the progress of this program. The prospect of possibly splitting this program into two programs should be considered very carefully. The splitting of the program may be unnecessary because it does not address any of the prior program critiques and is unlikely to place the program in a position of strength. Splitting the program now could lead to a less than outstanding rating for one or both programs. A closer relationship with Princeton investigators is advisable due to Princeton's alignment with this Program's goals. Plans to advance inter-programmatic grants and publications will require aggressive, timely action and careful monitoring. Peer-reviewed funding should be much stronger before contemplating such an action. Most successful contemporary prevention/population sciences programs have at least a \$6-10M peerreviewed funding base. Programmatic fission at a lesser level of support would need a very compelling scientific rationale. If the CPC Program decides to move forward with the SWOT analysis, these concerns should be considered.

The EAB does not get a sense that there is an overall plan for an effective, synergistic, center-led effort to manage and analyze informatics. Leadership alluded to a developing shared resource to support study conduct and management infrastructure needs, but it was not presented. The EAB supports efforts to build this important population science shared resource. CPC should seek to hire a mid-level faculty member who has transferable NCI funding. A closer relationship with Princeton investigators is advisable.

Consortium Cancer Center - Yibin Kang, PhD

Dr. Eileen White, Deputy Director and Associate Director for Basic Research, gave an overview of the Princeton/Rutgers consortium in the absence of Dr. Kang. The Princeton Consortium is made up of 22 Princeton based members. Currently, there are 16 cancer-focused, peer-reviewed funded research projects equivalent to an NIH R01 from 11 independent PDs/PIs by Princeton University faculty/CINJ members. The Consortium Steering Committee is made up of the leadership of both Rutgers and Princeton; they provide significant oversight for the activities of the consortium. The Committee advises on programmatic integration of members, conducts strategic planning for programmatic and shared resource development, advances translational research through collaboration, and resolves differences. Princeton University makes a tangible financial commitment to CINJ.

Areas of improvement for the consortium consist of: 1) More integration of Princeton research leaders into the consortium; 2) lack of detail on how research and resources are being integrated across the consortium; Capitalize on the unique strengths of this consortium member institution; 3) enhancement of consortium interactions including consortium-wide participation in multi-PI research awards and leadership; and 4) maturing the Small Molecule Screening Shared Resource. The four areas that the consortium will focus on over the next four years are: 1) the development of consortium-wide project grants; 2) the cross-appointment of faculty at Princeton/ Rutgers; 3) the integration of population science research with new members at Princeton; and 4) the integration of research and education affairs across Rutgers/Princeton. New consortium-wide collaborative pilot grants were awarded in the Spring of 2019. NIA funding was awarded to Dr. Shawn Davidson (Princeton University) to develop IMS to visualize metabolic geography in tumors and tissues. Drs. Mehnert, Guo, Lattime, and White received the Krauss seed funding award to support tumor biology applications for IMS. Presently, the consortium is building on existing strength in cancer metabolism research and identification of systemic metabolic mechanisms that regulate tumor growth leading to P01s.

Comments/Recommendations:

The financial commitments from grants should be noted in the presentation. It would be useful to include aspirational metrics for investments made with Princeton. Cross appointments are useful but these appointments don't add new grant dollars to the consortium. Princeton committing to bringing in more senior leaders could be

more impactful for the consortium. The positive influences of this consortium need to be showcased.

Associate Director for 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. The critiques received at the last CCSG focused on: 1) Dr. Ganesan's role as the Associate Director for Translation Research and how it evolved with the appointment of the Associate Director for Clinical Research; 2) the intent to grow population sciences in the upcoming award period; 3) the prioritization of translational initiatives; and 4) the interaction between basic research programs and the clinical program. The role of the Associate Director for Translational Research and the role of the Associate Director for Clinical Research now have distinct duties which is shown in CINJ's revised organizational chart. Dr. Ganesan provides support for the Clinical Investigation and Therapeutics Program, the Precision Oncology infrastructure, and the Committee for Expediting Translational Initiative. As Associate Director of Translational Research, Dr. Ganesan's role is to 1) promote the translation of basic science discoveries across the Consortium into clinical/translational studies; 2) promote the translation of important clinical findings into novel basic research projects; 3) foster inter-programmatic collaborations; 4) provide mentorship and support to junior faculty investigators; and 5) maintain and expand research infrastructure to support the clinical and translational investigators.

The Committee for Expediting Translational Initiatives (CETI) helps to operationalize the promotion of translational initiatives across the institute. The members of this committee include other research program Associate Directors and program leaders. These meetings take place quarterly. Each program leader nominates scientific projects, the most promising projects are invited to speak at the CIPT meetings and apply for pilot funding. Invited applications for pilot projects will be reviewed by CETI committee members/external reviewers annually and top scoring applications will be nominated for funding.

Research programs are the engines for novel discovery and the CIPT program provides the interaction with the clinic to foster translation. The Precision Oncology infrastructure which includes a very active Tumor Board and Committee for Expediting Translational Initiatives promote interaction between research programs and the CIPT program. The goals over the next three years for translational research are: 1) to use CETI to prioritize and fund translational pilot projects that arise from programs; 2) Expand Precision Oncology to partner hospitals; 3) establish joint retreats between CIPT, basic science programs, and population science programs; 4) introduce formal workshops on genomic and bioinformatic tools for clinicians, population, and basic scientists; and 5) provide workshops on clinical/translational approaches for basic scientists.

Comments/Recommendations:

The EAB suggested amending "addressing unmet clinical need" in slide 6 to say "addressing cancer burden in the catchment area". The program needs to explicitly prioritize projects that engage faculty from at least two programs. This program needs to provide more detail about what types of potential pilots Translational Research currently has. The Board feels that there are more aspects of Translation Research that could be supported. RFAs should provide adequate funds to accomplish the general scope of the projects it seeks to incentivize. Projects involving actual clinical trials should be vetted by the Center's financial experts, either in Office of Human Research Services for clinical trials, or wherever is appropriate to determine that all related costs will be covered. An experienced budget analyst should be designated to assist with the formation of the budgets. CETI projects should have funding time frames that are realistic for a particular activity which could range from one to three years. CETI recipients should submit annual progress reports to be reviewed by CETI co-chairs. It is recommended to inquire about analogous committees that EAB members may have in order to request that their SOPs be shared.

Dr. Ganesan did not offer any insight regarding the outcomes of translational research in terms of technology transfer. The EAB recommends that he share this information at future EAB meetings. Contributions of the Cancer Institute to the key metrics of translation should be highlighted. Given the CCSG summary statement critique about the lack of role delineation of Drs. Ganesan and Hochster, it would be helpful to better understand

their respective contributions to fostering all translational research in general, and overseeing the relationship between disease specific groups and the research programs. Dr. Ganesan's role in this regard was not described. The EAB suggests clarification about who interacts regularly with each of the disease group leaders to optimally guide their discussions about clinical trials or other translational developments. At the next EAB it is recommended that Dr. Ganesan present how he interacts with the disease specific groups, preferably showcasing positive outcomes of his leadership in this regard. Similarly, the EAB seeks to learn how Dr. Ganesan's senior leadership role in contrast to his program leader role contributes to the success of the Clinical Investigations and Precision Therapeutics Program. In addition, Dr. Ganesan's role as AD for Translational Research and the contribution this role makes to the success of the Precision Oncology Initiative needs to be explained. A graphic description of the relative role of DSGs and the CIPT Program illustrating how elements and leadership facilitate translation at CINJ needs to be developed.

The EAB commends the projected launch of the Committee for Expediting Translational Initiatives (CETI). The EAB suggested that the steps taken for the success of CETI be documented. In the interest of transparency and alignment of expectations, the metrics of success for CETI awards should be articulated for CETI committee members and prospective CETI applicants. EAB members should be asked if they have analogous committees and if so, SOPs should be requested for the committees to share.

Dr. Ganesan offered no information about outcomes of translational research in terms of technology transfer patients, licensing agreements, spinoff companies, number of INDs, etc. It is recommended to share this information at future EAB meetings, preferably in a trended fashion over the past grant cycle and continuing into the current grant cycle. Contributions of CINJ to these key metrics of translation should also be highlighted.

Cancer Metabolism and Growth (CMG) Program - Eileen White, PhD and Wei-Xing Zong, PhD

Dr. Wei-Xing Zong, Co-Leader of the Cancer Metabolism and Growth (CMG) program, provided an overview. During the latest CCSG, the Cancer Metabolism and Growth Program was rated excellent. The overall goal of the program is to determine how oncogenic alterations regulate tumor cell metabolism, growth, proliferation, survival and tumor-host interactions. During the last submission, CMG had three specific aims: 1) tumor metabolism; 2) mechanisms of nutrient scavenging; and 3) host-tumor interactions. The review team noted several strengths of the program, including the program's world-leading experts, superlative quality of publications, the increasingly large number of collaborative publications, and strong program leadership.

The review also mentioned certain weaknesses of the program such as: 1) the inclusion of a significant number of cancer relevant papers; 2) the majority of high impact papers were authored by the same investigators; 3) the program has many unfunded members; 4) the Cancer Center's contribution to the program's productivity; 5) the paucity of integration and interaction with investigators; and 6) concerns about the proposed transition of leadership from Dr. White to Dr. Jacinto.

CMG leaders suggested several approaches to improve the program. Over the next three years, the first goal of the Cancer Metabolism and Growth Program is to improve member performance. Cancer Metabolism and Growth plans to improve member productivity, engage non-core members, and enhance mentorship of younger members. The second goal of the CMG is to increase funding by obtaining P01/SPORES, improving number of MPI grants, motivate collaborations, and review several grants not cancer-related. The third goal is to develop the Cancer Immunology Group by developing immune oncology research into a free-standing program. Goal four is to better illustrate how CINJ has helped to facilitate the CMG program through regular CMG seminars, seed grants, recruitment of new faculty, and possibly making CINJ facilities available to program members. The fifth goal is to find a successor for Dr. Eileen White, one proposal is to try and recruit a new co-leader to the program and try to transition this leader into Dr. White's position within a couple of years. CMG highlighted two new members, Dr. Shawn Davidson of Princeton University and Dr. Dongfang Liu of the New Jersey Medical School.

Comments/Recommendations:

The possible actions listed are not clear; microbiome and immunology do not fit well into the CMG program. A back-up plan is needed for this program due to how broad it is. This program should have scored much higher. The program does not need three leaders. There is an issue with mentoring in these programs. There needs to be more specifics about formal mentoring and metrics within the program without elaborating in great detail. The majority of members are not funded or aligned. The program needs a new title such as Microenvironment. A day long retreat to speak about science is needed for this program to become successful in year four. Microbiome researchers and cancer immunologists might make the program more diffuse. Philanthropic gifts could be potentially transformative but are unlikely to have a significant impact on the program before the next site visit. A successful Cancer Metabolism SPORE application is unlikely due to the rarity of topic-oriented SPOREs and CMG's current lack of translation between metabolism research and human subject research. Prioritizing new opportunities to enhance metabolic analysis of primary human tumors could further stimulate cross-programmatic activities relevant to MPI grants, the Immune-Oncology Program and other activities. Dr. White is an exceptional leader and a phenomenal investigator but her overlapping functions at the Cancer Center implicitly raise questions about CINJ's leadership depth. The EAB considers it essential that a reasonable succession plan be developed and implemented in advance of the next submission.

Genomic Instability and Cancer Genetics Program (GICG) - Zhiyuan Shen, MD, PhD

Dr. Zhiyuan Shen, Co-Leader of the Genomic Instability and Cancer Genetics (GICG) program, provided an overview of the program's strengths and weaknesses. The Genomic Instability and Cancer Genetics Program scored excellent during the CCSG site visit. The GICG program was commended for being a strong basic science program with highly qualified leadership. The program was also commended for being a cohesive and highly collaborative program. This program has many notable accomplishments and provides impactful science. The weaknesses of the program included: 1) the lack of evidence of clinical translation of program discovery; 2) the lack of cancer relevant grants and roles in publications; and 3) lack of support for collaborations between cancer center members working at distinct institutions. GICG plans to focus on four specific goals: 1) enhance the translational impact of genomic and basic sciences; 2) foster a closer inter-institutional collaboration among the members; 3) focus on the cancer relevance of funding and publications in future reports; and 4) build a more synergized team science. GICG focuses on three scientific aims: 1) distinct Roles of BRCAness Genes in Cancer; 2) novel mechanisms of p53 mutations in tumorigenesis; and 3) new insights on the landscapes of cancer genomes. In terms of the Translational Pipeline, there is a combination of identification and validation of biomarkers and targets for therapy. Two specific unique aspects of GICG's translational status are 1) the tools for precision medicine and immunotherapy and 2) reverse translational studies. A P01 grant is planned for submission on September 19, 2019; this grant will have three projects related to BRCA network and will be institutionally supported.

Comments/Recommendations:

The program overall is an outstanding scientific program with substantial evidence of high impact and paradigm shifting discoveries. The P01 grant is great and the participants are wonderful. The program doesn't have a clear relationship with translation. The translational thread is easy to see but it is not clear from the cancer genetics perspective of this program. The program's relation to the catchment area is unclear. It is appealing to have a large number of members and that influences the grant numbers to rise, but having unfunded investigators or investigators that were not cancer related negatively effects the program's score. The overriding concern about clinical translation in the critique may partly reflect grantsmanship, especially since the CIPT Program was specifically commended for the successful GICG/CIPT interactions on both the PoIE and BRCA ½ projects. GICG should focus more on this issue. More attention is needed on disease and tissue-based samples; links to the clinical therapeutics and clinical trials; and developing new questions that can be addressed with clinical samples. Questions regarding catchment related research may arise in the next review. Program leaders should consider the necessary steps to facilitate progression of NIH fundable translational efforts during the current grant period.

Considerations for the planned P01 submission should include: 1) breast, prostate, ovarian, and pancreatic cancers of the patient populations; and 2) mouse models linked to disease states. This first step in the P01 submission should be followed by additional collaborative efforts. Other possibilities for the submission could include the prevalence of genomic instability in cancer etiology, the progression, and the treatment response. A collaborative program examining genomic instability from the lab to patient samples should be developed. Genomic instability assay threads, clinical impact threads, and the specific interrogation of genomic instability in clinical samples would be received well at the next visit. Pilot grant support, cross-program links, catchment-based tumor samples, and clinical annotation are encouraged to avoid diluting basic discovery. Securing the P01 would be a major accomplishment, firmly anchoring the program going forward. After achieving a P01, a T32 program based on Genomic Instability and Cancer Genetics should be considered. A T32 could ultimately foster a collaborative venture between GICG and the Career Enhancement Program.

Cancer Pharmacology Program (CP) - Stephen K. Burley, MD, DPhil

Dr. Stephen Burley, Co-Leader of the Cancer Pharmacology program, gave a brief overview of the CCSG assessment. The program scored outstanding to excellent. There were many strengths noted for the program including high impact publications, high impact discoveries, strong program leadership, and the potential for a strong bench-to-beside pipeline. The weaknesses noted in the critique included: 1) concerns about translation and specifically about the paucity in success; 2) better utilization of the small molecule screening ecosystem; 3) lack of publications from Princeton facility and the fragment screening facility; 4) the amount of funding that was not cancer focused; 5) lack of P01 grants; and 6) lack of representation among Princeton faculty in the program. The program leaders' plans for addressing the program's issues are as follows: 1) work with program members to identify and prioritize translation opportunities with CIPT; 2) expand small molecule screening capabilities; 3) increase utilization of the Protein Data Bank; 4) increase NCI and cancer-focused funding; 5) increase Multi PI/P01 grants; and 6) strengthen program membership with recruitment and Princeton faculty participation.

Comments/Recommendations:

The obvious issues are translation and NCI funding. Program meetings are not going to rectify the issues of this program, more needs to be done. A new approach on integrating science into the clinic could be very beneficial. Due to failed recruitment in the informatics space, it would be a huge mistake to embed individuals into the programs rather than coordinate them centrally to lead to a greater funding mass. The plans that have been presented seem to be tactical rather than strategic and there seems to be very little interweaving of each program's plan with the Cancer Center's plan.

Small Molecule Screening Center Shared Resource (Developing) - Hahn Kim, PhD

Dr. Hahn Kim, Director of the Small Molecule Screening Center at Princeton University, gave a brief overview of the Small Molecule Screening Center Shared Resource. The Small Molecule Screening Center Shared Resource originated five years ago at Princeton University. The vision of this shared resource is to develop a vertical integrated system where assay development to animal in vivo proof of concept could be established within this functionality. The Small Molecule Screening Center Shared Resource has been able to aid programs in asset development stages into animal proof of concept stages on very novel targets. There are about eight programs now which are running in parallel and different phases to the Small Molecule Screening Center Shared Resource. Within the next three years, the goals of this program are:1) initiate screening collaborations within six months; and 2) engage members beyond CP to other research programs such as CMG and GICG.

Comments/Recommendations:

The EAB felt that the Small Molecule Screening Center Shared Resource did not have the resources to develop and promote compounds into IND-enabling studies.

Immunoncology Research Program (Developing) - Eileen White, PhD

Dr. Eileen White, Deputy Director and Associate Director of Basic Research, gave a brief overview of the developing Immunoncology Research Program. Due to the increase in immune checkpoint blockade trials for Merck and BMS, Rutgers Cancer Institute wanted to take this opportunity to link the clinical activity and

experience with these trials and develop a Cancer Immunology and Metabolism Center of Excellence over the next three years. This center of excellence would eventually evolve into a freestanding program should it meet the criteria from the NCI. Rutgers Cancer Institute plans to raise money, recruit faculty, form a Scientific Advisory Board, launch an immune monitoring shared resource, operationalize the cGMP facility, and open a Parker institute clinical trial. A plan for the center to raise funds is being presented to donors and there is an opportunity for funding and support in the near future. It was proposed that Dr. Eileen White and a senior investigator in immune oncology would co-lead the program. Within the last year, CINJ was able to establish a scientific advisory board and recruit two junior cancer immunologists.

Comments/Recommendations:

The EAB strongly felt, that this proposal presented the potential commitment of an appropriate level of funding and strong leadership. The unique opportunity to differentiate this program from other programs across the country, with exclusive focus on the interface between cancer metabolism and metabolism of immune cells is promising. The focus on metabolism, especially the ability to extend to different immune subsets and ask questions regarding the interactions to the tumor is very unique. This program does present weaknesses as well. The utility of the Parker trial collects specimens that will be centrally assessed in another lab, this will not help the program. Recruiting a senior person, focused on cancer metabolism and immune oncology who would be given a package and a commitment of funds is a more appropriate idea. The strengths of home grown metabolomic assays that are innovative and interesting need to be showcased. The baseline of the program is not defined. Metabolism is a strength but the cost is a weakness. There needs to be a long-term vision for the Cancer Immunology and Metabolism Center of Excellence. A clear plan for the use of the GMP facility should be expressed during the center's strategic planning activities.

Immune Monitoring Shared Resource (Developing) - Edmund C. Lattime, PhD

Dr. Edmund Lattime, Associate Director for Research and Education Affairs, gave a brief overview of the developing Immune Monitoring Shared Resource. The overall mission of the immune monitoring core is to provide standardized, robust analysis of immune system status and responses for studies and trials carried out at Rutgers Cancer Institute of New Jersey. The core operations are organized around five specific operational objectives: 1) to serve as material experts in Immunology, consulting and assisting with the design of trials incorporating immune system analysis; 2) to offer a robust series of standardized and novel assays for immune monitoring; 3) to provide standardized expert analysis of assay data, including preparation of figures for use in study reports, grants, and manuscript submissions; 4) to continually develop, optimize, and validate emerging technologies and techniques related to immune monitoring; and 5) to maintain consistent and professional business practices in relation to services provided to ensure ease of use and a streamlined, efficient experience for clinicians, investigators, and staff. There are currently ten open trials; 1,205 tumor tissue lymphocytes and serum for analysis; five basic science projects with ongoing analysis; and seven open quotes for upcoming studies. The first goal of the Immune Monitoring Shared Resource is to develop an experienced full-time staff. At the beginning of 2019, Dr. Joshua Veith was recruited as the new Managing Director. Over the next three years, the Immune Monitoring Shared Resource plans to expand the technological capabilities of the shared resource to be reflective of Cancer Center needs; develop and expand the base of shared resource users; and develop a resource business model to maximize cost recovery while serving the user's needs.

Comments/Recommendations:

The EAB found the presentation to be interesting and liked the use of the clinical trials. The objectives of the shared resource are very clear. This developing Shared Resource plays a critical role in the Cancer Center; its services are of high quality, accessible, and cost efficient. There is an increasing volume of open clinical trials and additional trials are in the pipeline that require immune monitoring. Strengths of this Shared Resource include the leadership, the critical mass of clinical trials, and the potential to incorporate this Shared Resource with the new Center for Cancer Metabolism and Immunology. The interaction between this developing core and the flow cytometry core should be looked at as a possible merger of both cores. The new Director, Josh Vieth and the Basic and Tumor Immunology Journal Club are both strengths of this Shared Resource. It would be interesting to incorporate sightseeing 28 color flows or more innovative technology to this presentation. A

strategic plan for this shared resource will be important to address issues such as attaining GLP capabilities and state-of-the-art equipment.

<u>Clinical Investigations and Precision Therapeutics (CIPT) Program</u> - Janice M. Mehnert, MD and Shridar Ganesan, MD, PhD

Dr. Janice Mehnert, 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 goals over the next three years. During the most recent CCSG visit the Clinical Investigations and Precision Therapeutics Program received critiques on defining the process of selecting projects for translation and communicating programmatic goals; increasing the breadth of translational research; the clarity of the initiatives to increase accrual and the efforts to increase early phase IITs; and the lack of grant funding. CIPT has formed a committee to clarify the prioritization process in line with picking high priority science amongst leadership. The program is seeking to assess perceived challenges and opportunities among their membership; team science is essential in terms of writing and inventing medicines. A new opportunity to develop broad campaigns of patient recruitment in response to the needs of the catchment area is feasible due to the partnership with Barnabas Health. In the areas of translational research CIPT plans to recruit scientists with a focus on translation and human cancer; continue to look for strong science that will promote leadership and clinical trials; and expand upon work within ET-CTN to design impactful trials that can be positioned to transition to NCTN. The integration of clinical research has led to providing faculty support in writing and prioritizing investigator-initiated studies; regular meetings between Office of Human Research Services leadership and CIPT leaders; and real time communication with leadership regarding any obstacles the program or its members are facing. Given the size of the program, funding has not increased due to membership requirements within the program. CIPT plans to increase funding by pursing thematic SPORES that work across programs; providing pilot funding possibly through a percent FTE to teams showing productivity; and increasing applications for pilot opportunities and ETCTN supplements. The Clinical Investigations and Precision Therapeutics Program has reorganized their process of communication regarding administrative supplements. CIPT has ongoing discussions with the AD of clinical research, to launch larger project collaborations regarding pilot funding and preliminary discussions focused on cancer metabolism.

Comments/Recommendations:

The EAB thought that the length of the UM-1 and the renewal was very impressive. Highlighting recruits that are well known leaders in cancer would benefit future presentations. Disease specific groups and how they integrate into the program needs to be explained. The purpose of the Translational Committee is not clear. The program should showcase the science that is being done in this program. The newly formed translational committee to prioritize clinical trials is critical to this program. The plan to hold joint meetings between New Brunswick and RWJBarnabas Health System physicians is a great idea. Incentives should be provided to support the design and execution of IITs. Support should be provided in writing LOIs, launching trials, and creating protocols. To increase funding, pilot funding for new trails should be provided. The prioritization and allocation of resources to various trials should be transparent. Mentorship, including the methods of incentivization needs to occur in a comprehensive and routinely evaluated fashion.

Clinical Trial Infrastructure, CPDM, PRMS, DSMC - Howard S. Hochster, MD

Howard S. Hochster, Associate Director for Clinical Research addressed clinical trials infrastructure, clinical protocol data management (CPDM), protocol review monitoring systems (PRMS), and Data Safety Monitoring Committee (DSMC). CPDM was rated outstanding to exceptional. DSM, PRMS, Women, Minorities, and Children were all rated as acceptable during the last CCSG site visit. The goals for the next grant period are currently in progress. The program instituted a new DSM plan; eliminating the overlap of membership between SRB and HROC; individualizing DSMC and quality assurance; revising the data safety monitoring protocol (DSMP); and maintaining the External Data Safety Monitoring Board (DSMB). Goals for the program over the next grant period include: 1) creating a single research operation, resulting in the unification of clinical trials infrastructure across CINJ and RWJBH; improving subject recruitment and retention; and expanding development training. The RWJBarnabas system institutions are described as one clinical trials support unit. IRBs are unified under Rutgers and a common EMR planned eREG binder is currently agreed upon systemwide. The RWJBarnabas system institutions operate a systemwide SRB and DSMC, with DSMP approved at all

hospitals. All institutions encompass a unified site management plan and all finances are managed under the OnCore Finance module. 35 of 147 interventional trials are open in the entire system, and 8 of 12 hospitals have open trials. There are currently 110 FTEs for 400 patients in the Office of Human Research Services. To improve subject recruitment and retention, two screeners were hired; navigators are being trained to include trial information; and data work was shifted to a data management core. The future direction of Clinical Infrastructure is to finalize contractual relationships and IRB reliance agreements; create a Protocol Activation Office to centralize activities for the system; complete protocol entry and enrollment data in OnCore for a unified system; evaluate current trial portfolio and current staffing matrix; and exceed 500 trial accruals for this year.

Comments/Recommendations:

The EAB thought that the collegiality and interactions were impressive. The plan to increase accrual within a system of 12 hospitals needs to be more specific. In the next site visit, showing that there is a plan in place to incentivize recruitment and a plan to increase the accrual is important. It is not clear why increasing phase III trials is a goal of CINJ.

Cancer Research Career Enhancement and Related Activities - Edmund C. Lattime, PhD

Dr. Edmund C. Lattime, Associate Director for Research and Education Affairs gave a brief overview. At the last CCSG site visit in which Cancer Research Career Enhancement and Related Activities was first set as a separate section, the program reported the continuum of studies and activities that ranged from middle school to high school featuring training for the underserved. The three aims for this program are: 1) to train the next generation of basic, clinical, and population researchers and the broad-based student population; to provide Cancer Institute supported seminars, conferences, and retreats; and to provide state-of-the-art career enhancement opportunities to CINJ junior faculty. The program scored very good to good during the CCSG site visit. The identified strengths of the program include: the highly successful engagement of trainees including K-12 students, undergraduates, and graduate students; the strong emphasis on exposing students to concepts and techniques in cancer research; and the effective outreach to minority student populations. There were also identified weaknesses of the program, such as: missed opportunities to compete for training grants; unclear differentiation between cancer center training/seminar activities and the overall university activities of Rutgers/Princeton; the vague description of CINJ educational or mentoring activities at Princeton; and the lack of mentoring to junior faculty. The first goal of the program is to develop an institutional training grant portfolio. Currently, there are no T32 funded applications at CINJ. Cancer Research Career Enhancement and Related Activities plans to secure a T32 grant before the next site visit. The second goal of the program is to enhance cancer focused training across the consortium by developing consortium wide institutional training grants; working closely with the Princeton Group; developing student internship programs for Princeton undergraduates and graduate students; establishing consortium focused conferences and retreats; increasing participation of faculty; and expanding cancer focused education at Princeton. The CINJ pre-med internship program with Princeton is now finalized and is set to start next summer. Cancer Research Career Enhancement and Related Activities program is crucial to the MD PhD program and the Rutgers CTSA. The Precision Medicine Tumor board is currently open to Princeton students through WebEx and physical attendance. The third goal is to enhance faculty career development across the consortium through the identification and development of curricular elements. The fourth goal of the program is to sustain and broaden diversity initiatives. The program is currently looking for additional funding and hopes to secure an R25 Youth Enjoy Science grant in the near future.

Comments/Recommendations:

The EAB suggested that the reasoning behind the closing of the T32 grant was because of the NCI's rule regarding three post doc grad students. The program is missing an opportunity to coordinate with the community outreach group. There is an educational component that could be integrated as an aim between the two programs. The components that empower the various projects or programs to be successful in faculty development needs to be defined. The program needs to implement a steering committee that represents major partners throughout the consortium system, that includes some of the hospitals and the Barnabas system. Incentives should be given to faculty to participate in T32 and R35s. The extent and quality of training both at Rutgers and Princeton is superb but how the program is presented seems to be the major challenge. There needs to be very well described

processes for how the program conducts faculty development. Establishing a faculty development committee, that has established processes and metrics for success would benefit this program.

Next Meeting

The next meeting of the External Advisory Board is anticipated to take place in the summer of 2020.

Adjournment

Motion to adjourn was made by Dr. Johnson at 3:15 p.m. and was passed unanimously.

Respectfully submitted by, Jazmun Dotts Secretary for the meeting