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December 4, 2022

George Weiner, MD

Director, Holden Comprehensive Cancer Center at the University of Iowa

C.E. Block Chair of Cancer Research

Professor, Department of Internal Medicine, Carver College of Medicine

Professor, Department of Pharmaceutical Sciences and Experimental Therapeutics, College of Pharmacy

Dear George,

I want to thank you and your staff for arranging a productive external advisory board (EAB) meeting, conducted virtually on September 28. Members of the EAB reviewed your progress in the past year and how you have addressed the critiques from your 2020 Cancer Center Support Grant (CCSG) submission. We want to congratulate you, your leadership team, and the Holden Comprehensive Cancer Center (HCCC) membership on the strong overall progress you have made. We provide specific recommendations for each section presented to the EAB on the following pages.

Sincerely yours,

A handwritten signature in black ink, appearing to be 'SLG', written over a horizontal line.

Stanton L. Gerson, MD

On behalf of EAB members present:

Francis Ali-Osman, DSc  
Professor Emeritus in Neurosurgery  
Member, Duke Cancer Institute

David Gosky, MA, MBA  
Executive Director, Administration  
The Ohio State University Comprehensive Cancer Center

Maha H. Hussain, MD  
Deputy Director  
Robert H. Lurie Comprehensive Cancer Center  
Northwestern University

Anita Kinney, MSN, PhD  
Director, Center for Cancer Health Equity  
School of Public Health  
Associate Director, Population Sciences and Community Outreach  
Rutgers Cancer Institute of New Jersey

Electra D. Paskett, PhD  
Associate Director for Population Sciences and Community Outreach  
Founding Director, Center for Cancer Health Equity  
The Ohio State University Comprehensive Cancer Center

## University of Iowa Holden Comprehensive Cancer Center EAB report

### Directors Overview

Thank you for providing a comprehensive assessment of the current status, opportunities and outlook for the Holden Comprehensive Cancer Center (HCCC) of the University of Iowa and the state of Iowa. This cancer center, under your leadership, has, for more than two decades, supported and sponsored an academically focused effort to reduce the burden of cancer throughout the state of Iowa and the accomplishments of your program have made substantial strides. The Community Outreach and Engagement efforts are designed to assess, evaluate and mitigate health risks related to cancer, whether they be obesity, tobacco, or radon exposure. Over your 20+ years as HCCC Director, your efforts networking across community sites have been remarkable as has your achievement in discovery and translation across the spectrum of cancer research that has provided immense educational research and scholarship across multiple colleges of the University of Iowa, across the medical center, and amongst cancer center members. In many ways, the HCCC has been at the top of the accomplishment list for the University of Iowa.

As we discussed, the medical center is undergoing leadership realignment and is looking forward to the designation of a new vice president of medical affairs/dean for the medical school. In times like this, ratifying institutional commitment for the cancer center can be challenging because it is ill-defined. It is the distinct concern of the External Advisory Board (EAB), who have observed and evaluated your center annually and provided formal reports that are viewed by both the National Cancer Institute and by the review committee during CCSG renewal applications, that the guidelines and approaches to institutional commitment cannot be put aside during this time of transition. They are a) to provide support for cancer research, cancer clinical trials and cancer care; b) to be in line with expectations of the National Cancer Institute and not doing so would be a remarkably apparent red flag to any review body and could jeopardize the trajectory of this center considerably. It is important to reiterate specific expectations of NCI per the current guidelines (PAR-21-321):

*Commitments of parent institutions to the Cancer Center generally include the following:*

- An organizational status for the Cancer Center that is superior to that of academic departments
- Funding from the institution and consortium partners
- Research, clinical, and administrative space and positions
- Measures that ensure institutional leaders (health systems executive, university presidents, deans, etc.) will provide the long-term stable support necessary to accomplish strategic Cancer Center objectives. This may include a formula-based return to the Center of financial resources from clinical revenue, indirect costs, proceeds from commercialization of center discoveries, and other mechanisms of direct support to the Cancer Center. In order to ensure that research mission and cancer care are aligned, the Center Director should have some influence, or control, of the cancer service line
- Joint control with deans, or at a minimum with department chairs, over faculty recruitments to the Cancer Center

Authority of the Center Director:

- Superior to that of department chairs, with appointments to decision making committees and formally codified authorities that enable the Director to influence cancer policies at the institutional level
- Over specific research and resource space and equipment dedicated to the Cancer Center for the enhancement of Center research capabilities
- Over inpatient and outpatient clinical research facilities and the appointment and evaluation of individuals critical to linking oncology care to clinical research
- Over faculty appointments to the Cancer Center, and of their periodic review for continued membership

- Over central discretionary funds (e.g., philanthropic funds, facilities and administrative costs, and clinical revenues)

Regardless of whom is chosen as the new vice president of medical affairs/dean for the medical school, they will need to ensure not only that the ongoing institutional commitment for the HCCC is sustainable and increases over time, but also that the authority of the cancer center director exceeds the expectations set by the NCI.

As with any modest sized Comprehensive Cancer Center, faculty turnover and departures can lead to incredible disruption of the research programs and of the clinical trial efforts. To counter this tendency, the institution needs to make the environment for cancer research compelling, recognize and support its impact, and provide the resources and academic environment for all to flourish. It is the firm appreciation of the EAB that the resources across the institution are available but not sufficiently focused to benefit the cancer center research and education mission, nor the center's community outreach efforts whose benefits are extraordinary. While departures cost even more than retention, they are a necessary fact in our academic world. Support is still needed for replacing faculty that departed and for recruiting new faculty by creating incentives to induce highly productive individuals to seek employment and enjoy their academic careers at HCCC.

Despite these concerns, the overall status of the cancer center remains robust with stable overall grant funding, introduction of new program leaders, innovative research especially in the areas of immune oncology, free radicals, population cancer research and efforts in community outreach. It is such an urgent need for the nation's cancer centers to provide for those who lack adequate health services. Likewise, it is paramount that HCCC takes the lead offering cancer support across the entire state of Iowa. Necessarily, this needs to be supported through the university, the medical center, and potentially through the state legislature and with foundation support. But the cancer center mission is clear and needs to be highlighted by the institution as a priority. The aptitude of the investigators in population cancer research is such that they will take the ball and run effectively with the support provided to deliver much greater outreach for education, risk reduction and interventions to reduce the rate of cancer, the burden of cancer, and the mortality from cancer across the state. This requires a coordinated effort and investment since much of this will not be funded from NIH or NCI grants; nationally, these efforts are supported by institutions and by both local communities and the state.

Regarding the cancer center as a whole, we were asked to assess the value in moving ahead with an interim Director knowing that the renewal application is currently scheduled to be submitted in May 2025. Under the assumption that the lack of a permanent dean for the School of Medicine is a hindrance to the search for a new permanent Director, institutional leadership will need to carefully assess the timeline for the recruitment of both Dean and Cancer Center Director given the firm dates established by the National Cancer Institute for the renewal. The current Deputy Director, Dr. Michael Henry, was mentioned as a potential interim Director. Dr. Henry has over a decade of leadership experience as Deputy Director for Research with the HCCC and has more recently taken on further responsibilities as Deputy Director, increasing his understanding of the clinical mission. Dr. Henry could serve as interim Director if called upon. It is likely that a new permanent Director, upon request to the NCI, will be granted a one-year extension (May 2026), but this still places a time horizon of approximately 18 months from the selection of a permanent Director. Since it often takes more than a year to hire a new Director, it is not too early to start. Central to success will be a reassessment of institutional commitment, otherwise, this may not be seen as a competitive position and would be difficult to fill. While the final decision will be made by the new VPMA/Dean, the reassessment of institutional commitment can begin while the search for the new VPMA/Dean is underway.

The EAB discussed development of a strategic plan with center leadership. It is wise to begin to do so, first with a SWOT analysis, a realistic assessment of priorities, and attention to collaborative advantages of working with the colleges across the University to magnify the

impact of cancer research and cancer education across the academic community and into the region and the state. This should focus on where the greatest impact can be and where proper investments would amplify the discoveries translation and community impact of the cancer center programs. To be successful, this should be reviewed with institutional leadership, with community advisers and across the medical center and University to be sure it is aligned with and is valued by the many stakeholders. It would also focus the research programs and provide them reassurance that they were addressing the most important issues.

The EAB also notes that there are a number of scientific advances that allow the center to stand out, including leading the submission of three SPORE applications, the very strong immune oncology efforts, the studies with vitamin C as an antioxidant and cancer therapeutics and prevention and the high impact population cancer prevention studies in obesity and tobacco. These could be the basis of larger programmatic efforts. They will also support an expanded training programmatic effort for trainees across the continuum from teens to tenure and beyond.

### **Community Outreach and Engagement**

Community Outreach and Engagement (COE) has just transitioned to new leadership. Natoshia Askelson, PhD, is the new Interim Associate Director for COE. She is well qualified to lead COE. Dr. Elizabeth Chrischilles, Associate Director for Population Science and Community Engagement, has made significant progress and established a strong foundation for Dr. Askelson and the team to grow COE further. The additional COE leaders are strong – Sarah Nash, MPH, PhD for Aim 1, Dr. Askelson for Aim 2 and Kelly Sittig from the Iowa Cancer Consortium (ICC) for Aim 3. COE leadership has addressed or is addressing most of the comments from the prior review.

COE is focusing on the following: strategic planning and evaluation metrics; conducting a catchment area survey; fostering supplement grant applications; developing a supplement with the ICC; moving the successful model of community engagement developed in Black Hawk County to other counties; revamping aspects of the Community Advisory Board (CAB). The CAB is VERY involved which is a strength as is the integration with the ICC. The numerous strategies discussed are innovative and would make for a great manuscript.

COE's goal to alleviate Iowans' cancer burden by activating researchers and the population in assessing and addressing community-aligned priorities is excellent and aligns with the three aims of COE. A few questions arose: 1) How will the catchment area survey be funded? The HCCC needs to find funds to conduct this important survey; 2) Are the supplement grants only focused on colorectal cancer? They should be focused on all priority cancers; 3) There was no mention of interaction with the CTO or disease research groups or what the COE has/is doing to facilitate accrual of women, minorities and across the lifespan, nor were there accrual numbers presented; 4) priority cancers were mentioned but it was not clear how COE is addressing these priorities through outreach and catalyzing research to address these priorities; and 5) further integration of COE in the research programs is needed with clear examples of how researchers in the programs responded to community input.

Next year, the EAB would like to see a detailed plan for accrual to clinical trials that describes how the COE works with the CTO, DSRGs and impact (*i.e.*, accruals over time) and examples of COE-facilitated bidirectional community engagement across all of the research programs. We look forward to seeing progress in the next year.

### **Experimental Therapeutics**

The Experimental Therapeutics (ET) program is led by Drs. Bryan Allen and Aliasger Salem. The program research themes are:

- Identify potential new cancer targets and discover novel therapeutics approaches.
- Evaluate promising new therapeutic leads.

- Translate innovative and promising agents, combined modalities, and imaging approaches to early phase clinical trials.

The program now includes 27 (2021 was 29) full members and 22 associate members. One new full member, James D Byrne, MD, PhD, and six new associate members have joined the program. As of 9/1/22, the program has \$2.34M in direct peer reviewed funding which is slightly down compared to \$ 2.44M in 2021 (which was slightly lower than 2020). The program leaders are rightly concerned regarding the program's NIH funding.

Several very interesting scientific and translational research examples were presented and initiatives to enhance collaboration and translation. The program leaders started different venues to enhance interaction and foster collaboration and translation. Successful research mentorship is reflected by the success of Dr. Rasheid Smith who, under the mentorship of Dr. Salem and others, has a first author publication in *Science Advances*: Cationic nanoparticles enhance T cell tumor infiltration and antitumor immune responses to a melanoma vaccine.

Regarding clinical trials activity, the number of IITs are stable over the past three years and the number of pharma sponsored trials have increased. The ET program is on track to exceed the number of active trials compared to 2021, however concern is that the accrual will likely be lower. It is also important to expand national collaboration beyond the NCTN to include the ETCTN which allows growth for translational IITs and establishes national visibility which enhances clinical trials collaboration and leadership. In the challenging times that all centers are facing, the team is to be congratulated on their efforts.

In sum, several of the issues discussed previously continue, including the need to grow the funding base particularly from NIH/NCI, to increase rate of publications in high impact journals and to increase clinical trial accruals. We look forward to hearing advances in the next year on ETs goals of increasing NIH funding, adding faculty recruits, and strengthening early phase clinical research.

### **Cancer Genes and Pathways**

The Cancer Genes & Pathways (CGP) Program, led by Drs. Dawn Quelle and Rebecca Dodd, remains the primary basic research program of the HCCC and has continued to increase in strength, productivity and impact. The recent addition of Dr. Dodd to the program leadership is a positive step and brings new energy and additional scientific strength to the program. The Program's focus is on the discovery, characterization, and validation of tumor alterations, at the genetic, epigenetic, molecular levels, and cellular pathways; the results drive translational research leading to improved cancer patient outcomes. A critical component of the CGP program is the development of novel preclinical and animal models for a variety of cancers. These models are facilitating and enabling novel biological investigations and the development of novel therapeutic approaches for these cancers. The CCSG site visit team acknowledged these many strengths of the program and rated it as solid excellent.

The presentation by Dr. Quelle at the EAB meeting, showed significant and impressive progress that has been made since the NCI site visit two years ago, and demonstrates that the program is on track to be an outstanding one. Notably, the program's NCI peer-reviewed funding increased by almost \$2M, and there has been a notable increase in publications in high impact journals. The EAB viewed this as very positive progress and, with some programmatic changes and scientific consolidation, a trajectory to a truly outstanding program. The EAB's enthusiasm for the program, notwithstanding, it noted the need to continue to focus the many research activities of the program to reflect a strategic vision. This has been brought up by the EAB in previous reviews and the program leadership has made a significant effort to address it. With the program's growth and increasing/changing membership, there is a need to define the program's aims and overall direction and vision such that they accommodate these positive developments. Notable in this regard is the program's increasing and exciting activities in the

areas of immunology and obesity. The future plans to expand the program's research activities on cancers in the catchment area was viewed positively by the EAB, given the opportunities this offers, including, those for inter-programmatic research.

In summary, the EAB acknowledges the significant progress of the CGP program and the continued outstanding program leadership. The program is on a strong positive trajectory, in critical program areas, such as peer-review funding, high impact research and publications, and research that is increasingly having translational outlets. It is on track to become an outstanding program. EAB members noted, however, that there is room for further improvement, particularly, with respect to thematic focusing of program research activities, both, current and future, to reflect a strategic approach that aligns with the overall program's research vision and goals.

### **Free Radical Metabolism and Imaging**

The Free Radical Metabolism & Imaging Program (FRMI), the flagship program of the HCCC, continues to be innovative, productive and impactful. It has had exceptional leadership over the years, with Dr. Doug Spitz and, most recently, Dr. Yusuf Menda, an imaging expert. The program's focus on oxidation/reduction biology and exploiting it to better understand cancer development and progression and to develop novel therapies has been exemplary and highly impactful. Over the years, the FRMI program has had strong collaborative interactions with other HCCC programs that have resulted in multiple inter-programmatic grant applications and funded grants, including R01s, P01s, a U01, and several clinical trials. A highly successful example of the translational activity of the program, one that has had a significant national impact, is the high-dose ascorbate as anti-cancer therapy, which, home grown, was originally in lung cancer, and is now being extended to other malignancies. The EAB also viewed the recent research initiatives on flash radiation and the initial results on the potential mechanisms of normal tissue protection with the modality very positively. Equally positive was the collaborative research activities initiated between the FRMI and the CPG programs on Keap1 and Sleeping beauty.

Despite the strong enthusiasm of the EAB for the FRMI program and its longstanding success in leveraging innovative basic and translational discoveries into novel therapeutics and therapeutic strategies, a number of areas could be improved to further strengthen the program. The first, which has been mentioned in previous EAB reports, relates to the imaging component of the program, which has become weaker, particularly after the retirement of Dr. Michael Graham. Although Dr. Yusuf Menda, an imaging expert, joining the program leadership is a positive step, the vision for the imaging component of the FRMI program remains unclear, as are the plans for the radionuclide-based theranostics. A second recurring issue, one which was also mentioned in the last CCSG review, is the minimal role of genetic and genomics in the FRMI program's activities. The recent collaboration with the CGP program should help resolve this. These issues notwithstanding, the FRMI program continues to be an outstanding and a vital asset of the HCCC and is one of few of its kind in the country.

### **Cancer Epidemiology and Population Science**

The Cancer Epidemiology and Population Science (CEPS) program is comprised of 37 full members and 12 associated members. Six new members have been recruited and two associate members are now full members. CEPS has \$4.48M in peer-reviewed funding with \$1.96M coming from NCI. Program members published 154 publications in 2021; 31% were intra-programmatic and 19% were inter-programmatic. Twelve percent were high impact, but the metric for this descriptor was not provided (e.g., journals with impact factor >10). The program has three aims focused on etiology, primary and secondary prevention, and health services and outcomes.

CEPS has undergone leadership changes since the recent renewal. Dr. Mary Charlton and Dr. Mark Vander Weg are the new program leaders. They have complementary expertise and are

well qualified to lead this program; however, their specific roles as leaders of the program and how they work together were not described. Program leadership is making progress in addressing recommendations made by the EAB last year. A CEPS leadership team was assembled to assist with strengthening etiologic research within Aim 1. The composition of the team, specific strategies and how they interact to advance the program was not well described. It would have been helpful to have more information on the peer-reviewed grants and high impact publications in Aim 1, and plans for future grants. Concrete steps to enhance Aim 1 research might include the provision of targeted seed funding to increase etiologic research, closer interactions with the basic science programs, and synergistic scientific interactions across the 3 aims.

Program leadership has implemented strategies to help junior investigators attain independent investigator status and foster collaboration through presentations and small group meetings. Two new grants in which CEPS members serve as PI or MPI have been awarded: an NCI U01 focused on developing small area interactive maps for cancer control and an NHLBI R01 supporting an implementation science hybrid type I trial focused on lung cancer screening. These are positive advancements.

While the program has a strong cancer focus, strong ties to the Iowa Cancer Consortium, increased attention to catchment area priorities and disparities, and a rise in peer-reviewed funding, the NCI funding base, continues to be modest. Several high impact scientific highlights, including intervention trials aligned with Aim 1 and Aim 2 were presented. However, trial accrual information was not delineated. It will be important for the CEPS trial accruals to be reported and evaluated on a regular basis.

The future plans are sound and include addressing some of these issues. Moving forward, it will be important to enhance interactions with COE and enhance the impact of CEPS on rural communities and improve community engagement in research. In addition, how the program collaborates with PED and CRTEC should be expanded in future plans. These issues could be addressing as part of a formal strategic planning process. This is timely, given new leadership and new recruitments. The Population Research Core was mentioned but a better description of how this core supports research in the program would be helpful.

In sum, the future looks bright under the very able leadership of Dr. Charleston and Vander Weg. They have begun to take necessary steps to revitalize and strengthen the program. Further strategic planning over the next year will help advance the program and better integrate CEPS within the cancer center.

### **Shared Resource Management/Shared Resources**

HCCC Deputy Director Dr. Michael Henry, standing in for Dr. Gail Bishop, provided the update on the Shared Resources (SRs). To address a specific weakness noted in the 2020 CCSG renewal regarding the need for increasing HCCC's capabilities for accounting and tracking member usage of the SRs, Amy Pegump was hired in June. Ms. Pegump will provide oversight of invoices for services provided, help ensure that accounts are paid, monitor expenses related to clinical trials, help negotiate clinical trial budgets that utilize the SRs, and provide regular accounting reports to leadership.

In addition to the need for adequate administrative support for the SR, a second weakness that Dr. Henry addressed was regarding the effectiveness of the distributed model of bioinformatics support embedded in other areas. Currently bioinformatics resources are accessed sporadically through a former HCCC bioinformatics core, the Iowa Institute of Human Genetics Core and through a couple bioinformatics trained investigators. To help address this shortcoming, the Carver College of Medicine provided a \$300,000 commitment to recruit master's level bioinformatics staff who will be colocated with other bioinformaticians in the Iowa Institute of Human Genetics Core. While this infusion of support will help, a concern remains that HCCC



will need additional PhD-level faculty to fully meet the needs of center members. While the tactic of having a “coreless” strategy for bioinformatics can certainly be better elucidated in future EAB reports and ultimately in the CCSG renewal, it may be beneficial to describe that this now as a “university core”. Through this centralized resource, it be important to describe exactly what the process is for access to bioinformatics services and how center members are prioritized in ensuring quick access.

As noted by Dr. Henry, the impact of the Iowa Residual Tissue Repository (IRTR) was questioned in the 2020 review. Low member usage and a change in director, among other things, led to a meeting to discuss the sustainability of this effort in August. Initial action items focused on promotion of the IRTR, review of chargebacks, development of metrics for project workflow, development of an annual budget that focused sustainability. As the Biospecimen Procurement and Molecular Epidemiology Resource was rated outstanding to exceptional in the prior review, it would make sense for there to be better integration between it and the IRTR.

Updates on the two developing SRs, the Human Immunology Core (HIC) and the Microbiome Core, were provided. The HIC provides access to multiple optimized assays for investigators through Flow Cytometry, Multiplex ELISA and autoantibody biomarker profiling. Center members are provided advice on experimental design and which assays to use to best answer the research question at hand. In the year, usage was strong with 24 HCCC members performing experiments, five members completing projects and over six clinical trials supported resulting in three publications (with five more in progress).

The Microbiome Core provides consultation services, experimental and analysis support and letters of support for microbiome proposals for center members. Progress to date has been modest with 20 projects completed but only five from HCCC members with seven letters of support provided for grant applications.

In the prior review, the shared resources of the HCCC were rated as follows: Biospecimen Procurement and Molecular Epidemiology Resource and Biostatistics were each rated outstanding to exceptional; High Throughput Screening, Radiation Free Radical Research Core, and Viral Vector Core were each rated outstanding; the Population Research Core was rated outstanding to excellent; Flow Cytometry and Genomics were each rated excellent; and the Central Microscopy Research Facility was rated very good.

HCCC leadership is evaluating whether the current number and makeup of the existing SRs meets the scientific needs of the center and plans to develop a process for evaluating and prioritizing SRs for inclusion in the 2025 CCSG application and will be developing a scorecard to review at the next EAB meeting. Critical elements of evaluation need to include a) how the SR leadership is able to respond to the prior critiques; b) usage by HCCC members; c) scientific impact; and d) financial sustainability.

The EAB looks forward to reviewing the scorecards, hearing additional progress on tracking data that Ms. Pegump will provide and the plan for bioinformatics and hearing more about the growth of the two developing cores at the next meeting. In addition, it will be important to ensure that other weaknesses identified in the critiques, including: 1) the lack of a detailed description about the User Advisory Committees and how they interface with HCCC leadership; 2) a potential issue of inadequate HCCC representation for the jointly managed SRs; 3) the lack of clear plans to give priority access to SRs for cancer center members; and 4) what authority Drs. Bishop and Chrischilles have to negotiate on behalf of HCCC member needs for jointly-managed SRs.

### **Clinical Research**

Dr. Muhammad Furqan, Director of Clinical Research Services, presented on CPDM, PRMC, DSM and patient inclusion. At the last CCSG renewal, CPDM was scored “very good to

excellent”, DSM “acceptable”, PRMS “satisfactory”, Inclusion (minority was acceptable, women was unacceptable then revised to acceptable). Several process changes were implemented as recommended by the EAB after the 2021 meeting.

Accrual to interventional and treatment trials improved in 2021 compared to 2020. However, the year-to-date accrual (as of 8/2022) has declined. The decline is driven by faculty departure from several disease groups, staffing issues and closure of high accruing trials. Despite significant effort for staff retention/recruitment, significant number of staff (60%) are fairly junior with  $\leq 3$  y experience.

Several initiatives were started to address the gaps in staff, with focus on retention and training of new staff in addition to resource distribution driven by number of patients per cancer type and cancer types that are relevant to their patients’ cancers rate.

For the Quality Assurance (QA) committee a new QA officer was hired in 10/2021 and several projects were completed to address quality issues. Several other initiatives were implemented for operational improvements to enhance the regulatory and activation process, women and minority accruals including biannual meetings with COE leadership to identify or review barriers to access to clinical trials for minority population and discuss ways to improve access and developing a state-wide trial navigator program to improve access to clinical trials; they plan to finalize details in the next two months. Accrual of women to interventional trials is relatively stable. Pediatric accruals improved significantly in 2021 but is lower year to date in 2022.

DSMC: Dr. Douglas Laux chairs the DSMC. Efforts ongoing include increasing committee membership, enhancing monitoring of multisite trials and improving monitoring of regulatory processes.

PRMS: Dr. Michael Goodheart chairs the PRMC. Several process improvements were implemented to enhance membership quorum, accrual monitoring (per last year’s EAB recommendation) and priority scoring. Trial activation timelines are fluctuating. Dr. Furqan presented several opportunities and challenges that clearly need to be addressed. All are very critical and require cancer center, departmental and institutional collaboration and support.

The EAB offers these recommendations building on Dr. Furqan’s presentation:

1. Need to recruit clinical research faculty in several disease areas and implement processes to retain faculty.
2. Faculty Performance expectations and rewards: performance recognition, protected % effort.
3. Need to better use satellites to enhance accruals – this needs establishing adequate infrastructure and requires institutional commitment and expectations.
4. Need to improve trial activation timelines which requires disease teams, infrastructure, PRMS/IRB and institutional support/commitment.
5. As presented it is critical to increase engagement with community providers and COE to enhance access to clinical trials including state-wide effort to improve access to clinical trial in collaboration with Iowa Cancer Consortium.
6. Effective management of trial portfolio by MOG leaders (Developing MOG policy, due December 2022).
7. Institutional support is needed to improve clinical trials portfolio including finance to support clinical trials translating institutional science and institutional faculty IITs.
8. Need to establish ETCTN membership.

### **Career Enhancement**

Dr. Jon Houtman, Associate Director for Career Enhancement, provided the update on Career Enhancement which received a score of outstanding to exceptional in the 2020 CCSG renewal.

Notable strengths included: the highly qualified leadership; strong and well-planned education programs available for students, researchers, clinicians, staff and community partners; and integrated input from the Community Advisory Board. Opportunities for improvement focused on a lack of past tracking data beyond the past year, and that new systems have not yet been implemented.

Plans to address the critiques were presented with one year and five-year goals. The one-year goals included: 1) implementing robust trainee career monitoring; 2) implementing a mechanism to acquire information from PIs; 3) maintaining and expanding the summer research programs; and 4) establishing a strong mechanism for postdoctoral fellow mentoring. The EAB is very interested in the continued productivity of Monicur as a trainee tracking method and looks forward to hearing progress in subsequent years. A superuser group is being established among the cancer centers using Monicur and there is an established goal to have at least 80% of HCCC trainees establish a Monicur account by the end of 2022. Dr. Houtman also discussed implementation of a mechanism to acquire trainee information (among other data) from PIs which is facilitated through the use of a REDCap survey. Thus far 85% of full and associate center members have responded to the survey, which is an excellent response rate, and data shows that 514 individuals were mentored in 2021 with 378 still being mentored in the current year.

Maintaining and expanding the summer research program highlighted eight summer 2022 undergraduates and focused on three funding sources: 1) CURE funding from the NCI (which ended in the summer of 2022); 2) an R25 YES grant application led by Drs. Houtman and David Lubaroff (grant resubmitted in fall 2022); and 3) an ACS IRG supplement (submitted in fall 2022). The EAB has concerns that the only funding sources identified for the summer research programs are external grant mechanisms which may or may not be funded. HCCC institutional funds may be required to solidify this program going forward if none of the grant applications are successful.

Mentoring of postdoctoral fellows appears to have made significant progress. HCCC OCCET established and leads a postdoc workgroup with members from nine colleges and the Office of the Vice President of Research. The group is focused on improving systematic issues affecting postdocs at the University of Iowa. There are plans to implement a mentoring program that will require a mentoring committee of at least three faculty members, yearly discussion of an individual development plan and a yearly mentoring committee meeting. Plans also include creating speaking opportunities for postdocs and providing training and advice on fellowship applications. Participation is encouraged and incentivized through travel funds and a monetary award (n.b. additional institutional funds are required to be able to support all fellows).

An exciting development was the establishment of the HCCC Emerging Leaders Council. Promising early career investigators and clinicians were selected from each of the HCCC research programs to advise leadership on how to best leverage its resources to promote the success of early career faculty, how to accelerate the impact of their research, thus providing them an opportunity to contribute to HCCC decision-making.

The five-year goals included: 1) establishing a culture of trainee monitoring at HCCC and across the country; and 2) increasing the number of individual fellowship applications and awards. Towards the end of establishing a culture of trainee monitoring, HCCC is advocating to establish a culture of trainee monitoring locally as well as for a single monitoring program across all NCI cancer centers. In order to increase the number of fellowship applications and awards, institutional investment is needed to help develop a robust mechanism to facilitate application submission.