

University of Hawaii Cancer Center Proposed Business Plan Update

UNIVERSITY OF HAWAII CANCER CENTER PROPOSED BUSINESS PLAN UPDATE

For the UNIVERSITY OF HAWAII BOARD OF REGENTS

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EXECUTIVE SUMMARY

The University of Hawaii Cancer Center (the Center) is one of the National Institutes of Health sixty-nine coveted National Cancer Institute (NCI) designated comprehensive cancer centers. As an NCI designated center since 1996, the Center produces new oncology research that evaluates Hawaii's natural resources (marine life, plants, and microbial organisms) as new therapeutic agents for cancer. The Center is known as a leader in bridging its understanding of cancer mechanisms with an understanding of the nature of epidemiologic differences in cancer risk affecting our different cultures and ethnicities. Additionally, the Center prides itself on providing Hawaii with clinical trial opportunities while serving and educating Hawaii's people with cancer prevention and control interventions. The Center's catchment area extends to the Pacific – US-affiliated island nations through its Pacific cancer registry, partnership with the University of Guam, and various cancer prevention programs. The Center also serves as the headquarters for an NCI Minority-Based community-based clinical oncology program in support of local cancer providers. Many students in Hawaii receive scientific training in laboratory techniques and cutting edge research through the NCI sponsored summer research programs and graduate program sponsorship. Finally, the Center generates over \$20 million in federal grant expenditures each year that significantly contribute to the Hawaii economy.

To uphold the Center's NCI designation and accomplish the Center's missions effectively and efficiently, buy-in and advancement of a revised business strategy from the Center's stakeholders, faculty and staff must occur. This 2016 business plan provides an updated summary of the University's objectives for the Center and a two phased solution based approach to align the Center's education, research and improved patient care missions as Hawaii's only cancer research center serving its people.

Background & Objectives

In 2010, the Legislature and the University of Hawaii (UH) Board of Regents (BOR) approved the construction of a new Cancer Center building. The new building was necessary to bring the Center's collective faculty and staff together in a single state of the art building to improve cancer research productivity, ensure recertification of the Center's NCI designation, and reduce the dependence and costs of multiple building sites that did not meet the Center's research grants and contracts activities requirements. Further the primary facility on Lualaba Street was facing a significant mold abatement challenge and an expiring, nonrenewable occupancy lease.

With a healthy cigarette tax reserve of over \$38 million in 2010 to financially back the University revenue bond issuance, UH forecasted that the Center's annual \$19 million cigarette tax allocation would fully cover the new building's revenue bond debt service, facilities operations, repairs and maintenance costs. These infrastructure costs were originally projected at approximately \$18 million but currently range from \$14 - \$15 million annually. As per Hawaii State Legislative statute, any cigarette tax revenue remaining after all debt service and facilities costs were fully satisfied could be applied by the Center to further the growth of oncology research and thus enhance the service to Hawaii.

In 2013 a decline in annual cigarette tax revenue of nearly \$5 million annually occurred. With the Center's annual cigarette tax allocation reaching only \$14 to \$15 million annually, all excess annual cigarette tax revenue that the Center's has depended upon to advance oncology research and support cancer-related programs for Hawaii was eliminated. To mitigate the loss of available funds, the Center began to use its cigarette tax reserve fund to continue its mission-directed research costs. Additionally, the Center approached the Legislature in 2013 and 2014 to begin discussions regarding a sustainable financial solution to support its cancer research activities beyond that possible with significantly reduced annual revenues.

In December 2014 a new interim Center director was appointed, and was charged to develop a new Center business plan. In March 2015, the Center's interim director, serving also as the Medical School dean, presented the framework of a new Kaka'ako campus operations business plan proposal. The proposal introduced a modification to the Center's research operations to reduce its cigarette tax reserve dependency for research operations until a viable solution could be attained. The proposal also introduced a cost reduction measure to integrate the Kaka'ako Health Sciences campus operations to eliminate operational redundancies between the Medical School and the Center (resulting from separate unit operations). As the Center and the Medical School began the process of discovering which campus operations and administrative services could be integrated to eliminate duplicative unit and campus services, the Center's recruitments were placed on hold (i.e. leaving 20 appropriated and unappropriated positions

unfilled including the Center's permanent director and associate director). The Center also reduced facilities operations expenditures and limited research support and investments. These measures are anticipated to reduce the Center's overall FY2016 expenditure budget by \$3,000,000 from FY 2015.

Understanding the need for new resources for the Center's research operations, the UH Manoa Chancellor and UH's President secured the services of Warbird Consulting Partners in the Fall 2015 to (1) assess the Center's financial status and (2) present the University with a business plan concept that could be developed to ensure financial sustainability of the Center.

Warbird Partners' assessment report concluded that the Center is unique to other NCI comprehensive cancer centers residing on the mainland. Their report noted that most University cancer centers are supported by clinical patient activity tied to a University hospital. Warbird Partners strongly advised that the University consider in the long term operating the Center as an Enterprise Fund, i.e. a unit that is operated semi-autonomously from University to allow the formation of joint ownership with the Center's community based medical centers (see Appendix 1 for Warbird Partners' report). Warbird also noted in the short term and with existing authority, UH can:

- Complete key recruitments
- Improve operational efficiencies in collaboration with Medical School / Kaka'ako resources
- Refine financial accounting and forecasting capabilities and assumptions
- Initiate a plan to build out and operationalize the shelled space (i.e. Annex) with revenue contributing, mission-aligned, non-clinical operations
- Pursue research funding opportunities

For UH to establish an Enterprise model for the Center, several years (minimum) will be required for planning to modify legislative policy, securing joint venture partnerships with the Center's community medical centers, exploring new relationships for current employees of the Center under the proposed Enterprise model, and developing a functioning comprehensive business plan for such a novel proposal will be needed. Given the current cigarette tax reserves and magnitude of operating deficit, UH realistically has 1-2 years to fully launch such a plan. Understanding the time commitment required to investigate and/or further develop Warbird Partner's Enterprise model concept, UH desires that the Center begin to operate under a viable business plan now that considers Warbird's short-term suggestions and meets three University objectives: 1) Reduce the Center's dependency on cigarette tax reserves without financially depleting University appropriations, 2) support the retention of the Center's NCI designation, and 3) provide for a future increase in revenue streams and maximize vacant space use.

THE CENTER'S BUSINESS STRATEGY & IMPLEMENTATION PLAN

Warbird Partners confirmed that the Center's fiscal picture is challenging and complex, and a simple solution within UH will be insufficient to sustain the Center. Using a two phased approach, this plan offers solutions that address the University's objectives in the form of deliverables, initiatives and future options.

The proposed solutions presented in this plan, once approved and implemented, will finance the Center's research operations continuum on budget while promoting growth. The solutions include a focused management and administration business operations model that emphasizes both academic and fiscal productivity and efficiency, introduces commercialization of the Center's research assets, promotes an increase in research grant and contracts with the recruitment of key research faculty and international partnerships, and integrates campus operations with the Medical School to increase service, create new revenue streams and eliminate campus redundancies.

Phase I-A: Balancing the Budget with Integration to Deliver Cost Savings, and Appropriation(s) Augmentation

The Center depends on cigarette tax revenues to fully satisfy its new building debt service and facilities operations costs. At present levels the Center's cigarette tax revenue allocation covers these costs; however, based on historical trends, the Center must conservatively anticipate that the Center's cigarette tax revenue may continue to decline at least 1% per year. These declines are due directly to a reduction in tobacco products being purchased, and more importantly reflects Hawaii's population taking charge to improve their health by smoking less.

In order for the Center to address the University's first objective of operating the Center within a balanced budget, the following Phase I-A deliverables and/or associated requests have been drafted.

Phase I-A Deliverables	Description	Center's Potential Cost Savings	Status / Projected Timeline
Integration: Campus Space Planning Maximization	Using the remaining \$4M bond funding, the Center is renovating existing Medical School space to house specialized research equipment and to improve Vivarium operations to advance cancer research.	The Center is unable to house the NMR and Vivarium oncology research activities in the new cancer building. The Med school facilities are being renovated for the Center's NMR equipment and Vivarium needs.	<ul style="list-style-type: none"> Plans to renovate the Medical School facilities for the Center's needs are in progress. Center's anticipated renovation costs for the NMR and the Vivarium is approximately \$2 - \$3M and will use existing construction bonds.
Authority to Make a Change: Kaka'ako Campus Reorganization	<p>A campus reorganization concept was proposed in a former Kaka'ako campus proposed business plan in March 2015. A campus reorganization is required per UH policy to provide the authority to integrate both the Center's and the Medical School's administrative services to operate as a single campus.</p> <p>The reorganization will upgrade and improve campus service delivery while reducing duplications of administrative services on the Kaka'ako campus.</p>	<p>Proposal to integrate the IT Network and Telephone Systems is being socialized. Potential cost savings for the Center = \$100,000 per year.</p> <p>Anticipated integration and cross-coverage of janitorial, landscaping, facilities, IT, fiscal, HR, communications, contracting, and special events will render personnel savings for the campus from attrition, and reducing the need to hire more staff.</p> <p>Plan assigns responsibility and financial authority for campus administrative infrastructure to Medical School dean with consultation of Center director. Attrition has already begun and over a 3 year may save both units from \$250,000 to \$500,000 annually.</p>	<ul style="list-style-type: none"> Reorg was submitted to the Chancellor's office in Sept 2015. Union consultation anticipated in February 2016. Anticipated approval by the UH President, no later than April 2016. Reorg effective implementation date July 1, 2016.
State General Fund Augmentation Request: Funding the Center's UH faculty and staff state counts.	<p>\$4-5 million in annual State general funds are requested. Paying the Center's state counts cannot be fully funded on the Center's \$2.3 million State general fund allocation.</p> <p>Therefore, the Center fully depends on cigarette tax reserves to cover the majority of the Center's research personnel. The cigarette tax reserve is a finite source of funds. These funds at present usage will expire in FY 2018.</p> <p>As an equitable measure, the Center's UH state count personnel should be placed on</p>	<p>A sustainable source of funding such as State general funds is needed to fund the Center's research faculty and staff.</p> <p>Use of \$5M State general funds replaces an equivalent \$7M of cigarette tax reserve funds (a 40% savings); thus refocusing the remaining cigarette tax reserve funds for one time investment initiatives to build new sustainable revenue streams.</p> <p>Without new funds, the Center will need to lay off hundreds of UH and RCUH employees within two years due to financial</p>	<ul style="list-style-type: none"> UH, with the consent of the UH BOR, and support of the Governor has requested \$4-5M in State general funds to be approved in the 2016 legislative session. This request will also fund the recruitment of the Center's director, associate director, support staff, and new faculty recruits mentioned in Phase

Phase I-A Deliverables	Description	Center's Potential Cost Savings	Status / Projected Timeline
	a sustainable state funding source (with fringe) similar to UH's other organized research units with equivalent UH faculty and staff counts.	exigency.	I-B.
University Investment Augmentation Request to Support research operations	The University currently provides the Center an annual 10% investment (a percentage of the Center's present state general fund allocation) plus security services via its tuition special funds. However, an annual University investment of \$1.5 million is needed to fund the Center's 24/7 facilities operations and balance its annual research support budget.	This sustainable funding allocation will eliminate the Center from using its finite cigarette tax fund reserves to fund routine research support expenditures that cannot be covered by research grants and contracts.	<ul style="list-style-type: none"> Preliminary discussions with the President and Chancellor have occurred. University leadership commits to increasing its annual investment using University funds to \$1.5 million (or 20% of the increased state general funds) beginning July 1, 2016.

Phase I-B: Remodeling Research Support & Investment

The University's second objective is for the Center to retain its NCI designation. The Center's Phase I-B initiatives implementation rely on the Phase I-A deliverable outcomes and approvals. Phase I-B initiatives are designed to assist the Center in maintaining the University's NCI designation while allowing for expansion of its oncology research growth. As an NCI cancer center, the Center receives a funding award of over \$1 million annually to ensure the Center adheres to NCI's requirements. Additionally, the Center has the opportunity to apply for NIH funding that is only awarded to the NCI designated cancer centers. At the present, through this mechanism, the Center receives approximately \$4.3M in annual research funding (direct and indirect) that is only accessible to NCI designated cancer centers.

Warbird Consultants mentioned in their assessment report that University hospital-based NCI cancer centers require faculty to earn 80% of their annual compensation through research activity and clinical practice subsidy. UH's cancer center is a community-based matrix cancer center (i.e. not directly associated with a University hospital); therefore, faculty compensation funded in part by hospital or clinical practice financial subsidies are generally not available to support research faculty members.

To maximize and incentivize faculty productivity, the Center must modify its present faculty compensation model and its research support investment process to optimize its resources. The following Phase I-B initiatives address the needed change in faculty compensation required for the Center to allow sustainable growth needed to meet the University's NCI designation retention objective. Some of these change initiatives must be drafted with the assistance of the Unions to ensure implementation and cost saving measure success.

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Phase I-B Initiatives	Description	Financial Impact	Status / Projected Timeline
Director and Associate Director Recruitment	The Center needs a dedicated director and associate director to operate the Center effectively to ensure the advancement of the Center's missions and University objectives.	No immediate savings will be generated. State general funds requested in Phase I-A are needed to fund these positions. Presently these duties are being covered by the Medical School Dean funded by the Medical School and the interim Associate Director funded by the Consortium through June 30, 2016.	<ul style="list-style-type: none"> Director search is in progress. Associated director position description is in route at Manoa OHR for approval. Both positions ideally should be on board by July 2016.
Research Investment funding model modification	An investment proposal process, guideline and investment fund award with term limitations must be implemented to adequately incentivize research growth. The Center does not have a process or mechanism currently that provides performance metrics to assess faculty-based funding return on investment.	Restructuring the return of RTRF and consortium dollars as an incentivized research investment support will provide a dividend resource to promote research growth. The incentivized research funding pool should be allocated to faculty based on a funding model metric, and have set usage timelines to avoid hoarding of unspent awards.	<ul style="list-style-type: none"> Initiate discussions with the Center's Executive Leadership and engage the Center's faculty senate leaders to develop a model that can be implemented in FY 2016-2017. Consult with the faculty union to implement the incentive model.
Faculty Compensation Model Modification	The Center will work with UHPA to implement a faculty compensation model that allows tenure of new faculty with the caveat that all newly recruited 1.0 FTE faculty must cover 25% of the faculty member's tenure base compensation via extramural funds after two years of employment. New faculty will be recruited under the I-series with undergraduate teaching responsibilities related to their training. Release of teaching obligations for research will be contingent upon the faculty members' covering 0.5 FTE of their base salary via extramural funds in the prior academic year.	Investment of State general funds are needed to fund these positions to relieve the financial burden imposed on the cigarette tax reserves for growing the Center. No immediate savings will be generated for two years upon hire; however, faculty will be required to cover at least 25% of their compensation. This change will allow the Center to have funds to hire new faculty when counts are available. Further, the faculty may be assigned teaching responsibilities in key undergraduate science and math areas, should extramural funding be below expectations.	<ul style="list-style-type: none"> Initiate discussions with the Center's Executive Leadership and engage the Center's faculty senate leaders to develop a model that can be implemented in FY 2016-2017. Work with the Center's faculty senate and union to incorporate more structured educational expectations for faculty promotion & tenure. Consult with the faculty union to implement the new consultation model.

Phase II: Providing New Funding Streams by Maximizing Assets

The University's third objective is for the Center to develop future means to increase revenue streams while maximizing space utilization. The Kaka'ako campus buildings at the Medical School and the Center continue to evolve with the needs of its missions. As mentioned in the Phase I-A section, the Medical School has provided space for the Center to house its research operations that will save the Center from expending millions of unnecessary renovation dollars.

The Center's new cancer center building was completed in 2012 under its original proposed budget. The Center had used a portion of these revenue bond savings to construct a shelled research expansion annex adjacent to its new building. The annex is approximately 37,000 gross square feet. The estimated cost to fully build out the annex is approximately \$12 million to \$29 million depending on the type of activity that will be housed in that space. Maximizing the use of the annex can increase the Center's revenue stream and offset the future decline in cigarette tax dollars that fund the building's debt service and facilities operations.

The Center has explored partnering with the Office of Hawaiian Affairs, Blood Bank of Hawaii, Hawaii Biotech and others that have shown interest in collaborating with the Center and/or the Medical School. However, the University's revenue bonds that funded the construction of the Center's buildings and the Hawaii Community Development Authority (HCDA) managed land covenants restrict external private usage of the Center's building without significant added costs. Additionally, build-out costs have hindered outside agencies from securing a long-term lease with the Center.

Depending on the Center's cost savings measures outcome in Center's Phase I-A and I-B proposed solutions discussed previously, the Center may have an opportunity and funding (using one-time cigarette tax reserve dollars) to complete the annex. The following Phase II options provide a means to fully utilize the constructed cancer center building and annex for oncology research growth as well as provide the Medical School space needed to house its dry lab research and increase its MD class size. Optimizing use of the building vacancy with Center and UH affiliates does not violate HCDA's land usage covenants or the University's tax-exempt bond funding private usage regulations. Extending space to the Medical School provides new tuition revenue generation for the Center. Tuition special funds have the same fringe saving principles as state general funds.

Phase II Options	Description	New Financial Impact	Added Center Benefit
Using the completed Annex to add new revenue streams	<p>The Medical School leases over 30,000 square feet in the Gold Bond Building. The Medical School's buildings do not have the capacity to house its department of Native Hawaiian Health and Psychiatry departments</p> <p>New PBL rooms are required to be constructed to accommodate growing the MD class size.</p>	<p>Utilizing the Center's annex adds a new revenue stream for the Center to use to mitigate future cigarette tax fund declines that cover facilities expenditures.</p> <p>Allowing the Medical School to use the annex will provide the Center tuition funds to pay for facilities usage while reducing the Medical School's external lease cost escalation.</p> <p>Additional parking is not required, and violation of tax-exempt bond private usage regulations would be avoided.</p>	<p>Relocating Medical School activities to the Center's building will redirect tuition funds to the Center. As a new funding stream, tuition funds will allow the Center to use non-imposed tuition funds to pay for state count positions resulting in a savings of 40 cents on the dollar – as is possible for all other UH academic units.</p> <p>Additionally, to launch the construction, the Medical School would contribute up to \$1M in Annex building construction planning.</p>
Partnering with International Oncology Research	The Center's international faculty bring opportunities to expand oncology research in partnership with affiliated	Leasing one wet lab floor of the Center's existing building to perform Center mission based research would add a new lease	Using the existing wet lab space eliminates the cost of renovating the annex.

Phase II Options	Description	New Financial Impact	Added Center Benefit
Institution(s)	academic institution(s) in China	<p>revenue stream of approximately \$1.4M annually.</p> <p>Note that one equivalent alternative approach would be the leasing of Medical School space in the BSB with the Medical School in turn leasing laboratory space in the Center's fully built wet-lab space.</p> <p>A second alternative would require the international partner to enter a long-term lease build arrangement with the Center and cover the costs of both construction and the refinancing of the bond for annex related debt service.</p>	<p>Note that the first alternative scenario would avoid compromising the University's tax-exempt bond funding since the Medical School has already refinanced its BSB debt service to permit greater commercial use of space.</p> <p>Note that this second alternative scenario requires the commitment of an international partner for a long-term relationship with UH in a relatively short period of time.</p>

EXPECTED RESULTS

The proposed business plan phased in deliverables, initiatives and options is anticipated to provide the following results:

Financial Benefits (refer to the Financial Forecast in Appendix II for details)

- Phase I-A: Authority to integrate the campus and secure the resources needed to balance the Center's general, special and revolving fund budget no later than FY 2017.
- Phase I-B: Faculty compensation and research investment model modification and implementation to retain the NCI cancer center designation while increasing research growth and clinical trial opportunities in Hawaii.
- Phase II: Development of new Center revenue streams, including but not limited to facilities usage in the form of tuition from the Medical School, and international research collaboration further increasing research indirect cost recovery earnings (due to new faculty investments). New funds can be used to mitigate future cigarette tax revenue decrements and provide a source for increased oncology research activity which will stimulate Hawaii's economy.

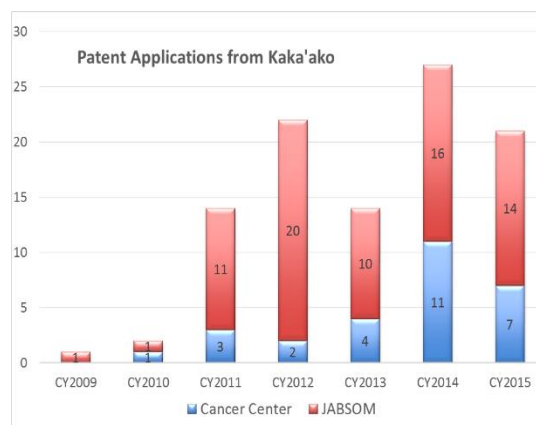
Technical Benefits (increased productivity and efficiency)

- Phase I-A: Via campus integration improved telecommunications, network security and cross coverage; improved and streamlined faculty and staff recruitment and personnel management process; shared best practices across the Kaka'ako campus.
- Phase I-B: Stated policy and process guidelines to engage and incent the Center's faculty, i.e. understanding how faculty can attain additional research support through successful grantsmanship and operational efficiencies.
- Phase II: Increase usage of in-house expertise while reducing the need for external contractors to facilitate University programs by relocating campus units from non-University building to the Kaka'ako campus.

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University & State Agency Benefits (increasing research innovation)

Phase I & II: A part of the original goal for establishing a Kaka'ako health sciences campus was to incubate new biotech and intellectual property (patents) to expand the economy of Hawai'i into this area. The Center and the Medical School are working to fulfill that goal through the creation of several startup companies and the number of patents filed (see graph). The Center and Medical School's biotech innovation advancements complement and align with HCDA's Kaka'ako Makai Innovation Block phases two (i.e. Kewalo Incubation Center) and three (i.e. Learning Center) being developed in Lot C, just ewa of the Medical School & the Center.



Other Benefits for the People of Hawaii (promoting economy, health & well-being)

All solutions proposed in this plan add to the financial stability of the Center and the opportunity to grow the University's oncology research. The Center brings over \$20 million per year of federal dollars into Hawaii. Not only is this a significant economic stimulus for Hawaii, but the Center provides a mechanism for the local hospitals and oncologists to offer clinical trials of relevance to patients in Hawaii who would otherwise have to travel to the mainland for care of their cancers or do without, if they cannot afford such travel. Further, the Center summarizes cancer information for the Department of Health and is a leader in epidemiologic and prevention support that the state would not receive without a cancer center.

Designation of the Center by the NCI allows the Center to bring over \$4.3 million per year of federal support to Hawaii that is only accessible to NCI designated centers. One of the associated grants provides unique cancer support to the University of Guam, and other areas of the Pacific. Further NCI designation provides local resources to support essential clinical trial infrastructure that enhances the ability of local oncologists and hospitals to enhance the portfolio of relevant cancer treatment trials available in Hawaii. Given the reality that over 20% of the residents of Hawaii will suffer from cancer during their life-time, virtually every extended family in Hawaii will benefit from the services of the Center in support of cancer treatment and prevention efforts in Hawaii.

CONCLUSION

Warbird Partners wrote in their assessment report cover letter: "It is clear that the UHCC (i.e. the Center) will run out of financial resources in less than three years without action being taken." The UHCC is a major economic engine for the state of Hawaii and provides unique high-tech life-science jobs in Hawaii. As a University organized research unit, the Center generates over \$20 million in research grants and contracts, an additional \$1 million in philanthropy and over \$2 million in support from local hospitals. Most of these monies go directly into the state economy and cannot be used for Center operations. Since, the Center is not able to use any of its federal, state, local or private grants, contracts or philanthropy for purposes other than specified by the funding agency and/or donor, the Center must maximize the use of its state general, special and revolving funds for operations.

Without a viable business plan to effect change, the Center (as indicated by Warbird Partners) will run out of financial resources by fiscal year 2018. This document promotes a business plan that requires aggressive management and administrative change to allow the Center to maximize and exercise the benefits derived and opportunities provided by the use of state general, special and revolving funds. The plan also promotes expanding the opportunities afforded by the Center's UH Kaka'ako campus assets. Leading effective change requires a viable plan that is supported by all stakeholders, requires adequate communication of the burning platform addressing why change is needed, and engagement at all levels to implement and perfect the plan to achieve success.

APPENDIX I – WARBIRD PARTNER’S ASSESSMENT REPORT



PHASE I: ASSESSMENT

University of Hawai'i Cancer Center

Prepared by Warbird Partners
and Navigant Consulting, Inc., a subcontractor to Warbird Partners

Presented to
University of Hawai'i Foundation
October 16, 2015

Uniquely Qualified

October 16, 2015

University of Hawai'i Foundation et al.
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Accompanying this cover letter is our Phase I: Assessment report, which is based on our review conducted over approximately six weeks between late August and early October 2015. We believe the initiatives suggested in this report can improve the financial situation at UHCC as well as contribute to the quality and quantity of the research being performed at the center.

Our assessment report touches on many issues, but it is clear that the UHCC will run out of financial resources in less than three years without action being taken. Since many factors influence the financial performance of the UHCC, there is no certain, calculable amount of annual financial support needed to "close the gap."

UHCC has the opportunity to conduct significant and impactful cancer research that can make a difference for the people of Hawai'i and elsewhere. Operational and financial improvements are possible but as UHCC expands its research, it will always need financial support from a combination of sources: the State, local communities, University of Hawai'i ("UH"), and the Hawai'i Cancer Consortium ("Consortium"). Furthermore, UHCC will need to seek additional funding and contributions from the corporate and philanthropic communities. Cancer research everywhere is supported by these sources; the need for such support is not UHCC-specific. In order to achieve operational and financial improvement, UHCC must increase faculty and administrative productivity, maximize income potential and use of its facility, add research faculty and improve synergy with clinical and strategic partners.

Among potential actions to take, there are no quick fixes that offer near-term financial benefit sufficient to alter the amount of subsidy that will be necessary to keep UHCC operational. Certain efforts can be initiated more quickly than others, primarily based on what falls under the direct control of UH leadership or not.

If the goal is to sustain unique cancer research capabilities in Hawai'i, no management or governance action that can be taken today (without extensive, interparty, detailed discussion) will change the UHCC's economic equation sufficiently in the short term to eliminate the need for continuing financial support from many sources. If UH and the State, among other stakeholders, do not share that goal and the financial support it entails, the UHCC will not be "saved" by outside partners and advisors.

Economic challenges associated with the research center also relate to institutional issues that are unique to UH and the State, but are not distinctly UHCC challenges. These include issues related to

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State finances, UH issues involving faculty expectations and space standards and issues associated with O'ahu's concentrated clinical environment.

In short order, and with existing authority, UHCC can:

- Complete key recruitments
- Improve operational efficiency in collaboration with JABSOM / Kaka'ako resources
- Refine financial accounting and forecasting capabilities and assumptions
- Initiate a plan to build out and operationalize the shelled space with revenue contributing, mission-aligned, non-clinical operations. (Note: Any build out plan that involves uses for clinical care of cancer patients is unlikely to succeed financially without the active sponsorship of existing local provider institutions.)
- Pursue research funding opportunities

Additional aspects of our assessment are summarized in the form of observations, findings and recommendations. We also articulate our response to a few common themes identified from the questions posed by interviewed stakeholders.

Though many potential "Phase II" topics have been raised, we propose that the following next steps be included as you proceed with the development of a business plan for the UHCC:

- Develop an Enterprise Fund plan, with due diligence on at least two potential structural/governance scenarios
- Refine "status quo" assumptions that are necessary for business plan financial forecasts
- Estimate the UHCC facility's value in a "Market" option, for comparison with other scenarios
- Transform the Consortium to include governance role for partners that would include some combination of UH, JABSOM, Local Hospitals, UHCC faculty and Community-based cancer clinicians
- Conduct direct, detailed discussions with the National Cancer Institute
- Investigate joint ventures with select, leading mainland cancer center
- Set goals for increasing research grants and awards – from basic research to clinical trials – and develop plans for competitively pursuing those grants and awards

We look forward to discussing what, if any, role we can play in your next steps.

Sincerely,

Bruce Fairbanks
Director and Senior CFO Consultant
Warbird Consulting

J. Charles Cosovich
Director
Navigant Consulting

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SECTION 1: INTRODUCTION AND BACKGROUND

In August 2015, Warbird Consulting was engaged by the University of Hawai'i Foundation to conduct the first phase of a proposed two-phase process, to develop a business plan for the University of Hawai'i Cancer Center that offers credible and reliable financial forecasts including needed investments and expected results. A Warbird Consulting subcontract with Navigant Consulting added experience in the area of business strategy for academic cancer centers.

This document constitutes our Phase I: Assessment report based on investigation conducted through early October 2015. As agreed, Phase I involved the following:

- Interview internal and external stakeholders (see [Appendix F](#))
- Review existing documents (see [Appendix G](#))
- Review UH/UHM and State Investments and historic funding to identify opportunities (see [Appendix A](#))
- Review operational costs, organizational approaches and business practices and identify any opportunities for savings
- Develop and present Assessment report

The next step, Phase II: Business Plan Development, will proceed at your direction and under an updated agreement and engagement budget.

Our report is intentionally concise and direct, without elaboration on the natural history of the UHCC. It is essential to emphasize our personal admiration for the many researchers, academics, clinicians and others who have dedicated years to the goal of reducing the burden of cancer. We believe that the promise remains for the capabilities of the UHCC and its research facility to make unique and vital contributions to this goal.

As we spoke to a wide array of stakeholders, a clear majority shared the desire for the UHCC to make an impact in the fight against cancer. In our opinion, demonstrable success in this effort will do more to sustain National Cancer Institute (NCI) support than any decision or investment undertaken at the leadership or governance level.¹

¹ NCI-designation is a distinction that recognizes research. Though clear expectations are outlined in detail in the requirements of an NCI-designated center's Cancer Center Support Grant (CCSG, a P30 grant), NCI support, up to and including NCI-designation, is a negotiation. Still, UHCC has won designation in the past despite its small scale and its external constraints – small population, no differentiated clinical partner, etc. To paraphrase in the extreme, NCI seeks institutionally supported, multi-faceted research enterprises where well-credentialed leadership oversees investigator-initiated research that spans from the research lab bench to the patient's bedside. UHCC's External Advisory Committee (EAC) offers irreplaceable guidance on how best to position UHCC for NCI renewal. Experience suggests that the NCI would welcome appropriate direct communication with UHCC to discuss future plans. The presumed economic value of NCI designation has spurred health systems, academic health centers and entire communities to work collaboratively over the long term to achieve it. In virtually all other cases besides Hawai'i, NCI-designation represents a competitive differentiation for the cancer center's related clinical enterprise. UHCC's specific arrangement with its Consortium partners means that no clinical enterprise benefits differentially from UHCC recognition. For instance, in Seattle, the NCI designation relates to University of Washington Medical Center in a way that no other competing medical center can claim. In Hawai'i, competitors have gathered to support UHCC; or, seen in the obverse, no single major Honolulu provider is competitively differentiated by UHCC's NCI designation.

We recognize that the UHCC pre-dates its relatively new, namesake facility by many years, though UHCC's stated mission has remained consistent throughout its history. Where the distinction is material to our assessment's findings, we distinguish the UHCC as an entity from the UHCC facility, collocated on the UH Kaka'ako Campus with the John A. Burn School of Medicine (JABSOM).

Our understanding stems from intensive but time-delimited investigation into the qualitative and quantitative factors that influence UHCC's current state. Over approximately six weeks, from late-August into October 2015, we reviewed numerous reports and other tangible information. Also, we conducted frank, confidential, 30- to 90-minute interviews with almost 50 individuals, mostly in-person (for a list of interviewees and bibliography of material reviewed, see Appendices F & E). Inevitably, these materials and individuals do not represent an exhaustive collection of potential information sources, but we are confident that we have been exposed to a comprehensive range of perspectives on the history, current state and future potential of the UHCC.

This report incorporates our opinion, based on prior experience working with academic healthcare institutions on matters of strategy and finance, including engagements with NCI-designated cancer centers on the mainland. We are not, however, scientists, clinicians, academicians or lawyers and this report is not an accounting audit. Accordingly, the information contained herein is intended to provide a high-level assessment to help identify what additional information and diligence is needed to develop a go-forward plan. The review did not include audits of any financial statements or performance of any attest procedures. The assessment conducted was not designed, nor should it be relied upon, to disclose internal weaknesses in internal controls, financial statement errors, irregularities, illegal acts or disclosure deficiencies. This report is not intended to be and should not be relied upon as legal, auditing or accounting advice.

At the time of this report, the UHCC is forecast to run out of cash by 2019 without any additional changes to expected revenues or costs. The JABSOM Dean is serving as Interim Cancer Center Director while a new Cancer Center Director is sought. UHCC's is supported financially a Consortium of local providers – The Queen's Medical Center, Hawai'i Pacific Health and Kuakini Health System – as well as support it receives from the efforts of individuals, including affiliated community physicians, at these systems in support of UHCC.

SECTION 2: PHASE I: ASSESSMENT – KEY FINDINGS

Our assessment is as follows:

- **Action is necessary.** Without further subsidies, at the present rate of negative cash flow, UHCC will run out of cash reserves in FY 19, assuming there is no further funding of depreciation. If the requirement for funding depreciation instituted by the Board of Regents in FY 15 is continued, the cash reserve will run out in FY 18 (see in-depth discussion in [Appendix A](#)). Other recent trends have also suggested the need for a change. In FY 15, UHCC held 180 grants, fewer than the 250 held in FY 13, with some grants discontinued but others consolidated. At the same time, total operating expenditures in FY 15 were over 10% higher than they were in FY 13, rising to \$41.7 million from \$37.7 million, related in part to non-recurring, move-in costs associated with moving into the next building.
- **All options raised have been considered.** Comparison of potential futures, from one UHCC scenario to another, is always speculative. What scenario puts the UHCC – entity and facility – to its highest and best use? Below we have listed some scenarios that we considered, though we regard these as not-preferred options:
 - o Abandon NCI designation
 - o Close UHCC
 - o Allow UHCC to be acquired by an outside entity
 - o Merge with mainland Cancer Center

In the case of any of these options, the State would lose Federal grant funding and related revenue streams while also diminishing the long-term prospects for research grant funding and discovery in Hawai'i and leaving to others the philanthropic potential of cancer research.

- **Allow UHCC to operate semi-autonomously from UH.** Establishing the UHCC as set aside from but not outside of UH, for instance as an Enterprise Fund, may be the best structural approach to enable the UHCC to achieve its potential. As a universal and accessible resource for cancer research in the Islands (and the South Pacific), capable of partnering directly and expeditiously with public and private entities based in or outside of Hawai'i, the UHCC can evaluate the widest possible array of near-term and long-term options. We believe the potential of the UHCC can only be unlocked by enabling quasi-independent functioning.

Working in concert with the UHCC in the context of an Enterprise Fund, the Consortium's functional and operational capabilities to deliver clinical research should be expanded with the active participation of Queen's, HPH, Kuakini and the community cancer physicians. In this scenario, the Consortium as an aggregation of entities could contribute to governance and management of the cancer research operations in Hawai'i, potentially to include the UHCC-related Enterprise Fund.

- **Find synergy with Hawai'i's existing clinical operations.** Hawai'i's small state population, along with other factors, will always prevent UHCC from matching the scope and scale of many other major NCI-designated centers, including those at UCSF, UCLA, USC, MD Andersen or the Seattle Cancer Care Alliance. These same factors also limit UHCC's potential for clinical operations in the UHCC facility. UHCC should not attempt to create its own clinical operation at Kaka'ako. For the UHCC to have optimal performance, the

UHCC's research focus must find synergy with existing clinical operations, including Consortium members and community cancer physicians.

- **Address funding of faculty costs.** Faculty at UHCC does not fund compensation with a proportion of extramural (non-institutional) funds that comes close to matching prevailing standards for researchers at mainland cancer centers. Most faculty at NCI-designated cancer centers face standards for productivity, salary support, salary levels and overhead contributions. Elsewhere researchers with grant funding (known as "soft money") might be expected to cover 80% to 90% of their salary support with extramural funds. Additionally, start-up and bridge funding packages – intended to boot-strap new researchers, or bridge grant-less years for more senior colleagues – often are limited to three years, but not at UHCC. As a point of reference, if UHCC faculty received 80% of their salaries from extramural sources, \$5 million annually in funding support from the cigarette tax² that currently goes to faculty compensation would be freed up for other uses.
- **Recruit a new UHCC Director.** Director of a cancer research center is not a part-time job, and a background in cancer-focused research is normally a prerequisite. The field described by cancer research is deep, expansive, complex and evolving rapidly. To contribute in UHCC's portion of this research spectrum will involve weaving a web of funding sources and research capabilities. UHCC's Director should aim to optimize the center's assets – people and property – in an effort to garner the most funding for the most cancer-related research. Leadership at UHCC has been a problem. In short order, there have been three different Directors and now the JABSOM Dean as interim (acknowledged as not a cancer researcher), none of whom has been afforded a long-term view. The leadership instability has also frustrated both existing and potential partners. The NCI expects a Director who has clear authority over and accountability for the highest and best use of the cancer research enterprise. To contribute to its potential as a cancer research center, UHCC needs such a directorship, regardless of NCI designation status. Furthermore, a new UHCC Director should have existing research funding and an extensive history of obtaining cancer-related grants and awards.
- **Finish the UHCC building with complementary services.** The UHCC facility's shelled space and otherwise under-used capacity must be commissioned for highest and best use. UHCC efficiency – operational, financial and in terms of cancer research potential – is limited by the underutilization of the UHCC facility's square footage. The build out of the facility's shelled-in space must be a priority as shell space represents approximately 33% of the facility and is generating no revenue.

The UHCC's purpose-built design, intended to facilitate interdisciplinary, cancer-related research, is unmatched for thousands of miles in all directions. The UHCC has valuable collocation with JABSOM and other academic and research-related resources at Kaka'ako, including many [scientific core services](#) and research-ready infrastructure. Completing the UHCC facility's functional build out in a fashion that maximizes UHCC's cancer-research potential seems optimal, though there is no shortage of potential alternative uses for the shell space or the facility as a whole.

² Many interviewees referred to the "tobacco" tax, however, our understanding is that only cigarettes are affected and revenue from the sale of many other sorts of tobacco products does not accrue to the funds that touch the UHCC. UHCC receives no support from the [Hawai'i Tobacco Settlement Special Fund](#).

In current plans, to complete construction of the shell space is estimated to cost \$13 million, not including furniture, fixtures or equipment which would add millions more.³

The completed portion of the UHCC building is not fully utilized. Significant cash flow potentially could be generated by leasing the unoccupied/underutilized existing space and the shelled-in space, although options are complicated by the constraints of the facility's Bond issue. The Bonds have very expensive call provisions and the limitation on private use has been interpreted very restrictively to limit leasing the vacant space to only government entities. An in-depth economic analysis would be needed to assess the potential value of lease revenue and the options to expand the type of tenants who can occupy the building within the Bond's constraints.

- **Communicate clearly.** Misinformation and misunderstandings of fact regarding the UHCC are rife and debilitating to its potential. Two points listed below are examples of commonly misunderstood facts expressed by many of the stakeholders we interviewed. We offer clarification to improve the productivity of debate regarding the center's future.
 - o **Grant-funded research by design requires subsidization.** Grant funds usually can only cover a fraction of a research center's indirect costs, such as overhead and infrastructure costs that are allocated across all UHCC operations (see more in-depth discussion of indirect costs in [Appendix B](#)). So, increased grant-funded research can only happen with increased investment to match.

As a broad general range of expectation, \$1 in grant funding may necessitate an additional \$0.50 to \$1.00 to conduct. In this way, grant funding of approximately \$20 million may need an additional investment of \$10 million to \$20 million to conduct. A combination of state, institutional and philanthropic support cover this difference at most all academic cancer research institutions. UHCC is unusual in that funding for its research is not supported by any proportion of a clinical revenue stream associated with caring for cancer patients.

In terms of potential for long-term return, research at a cancer center, with thoughtful, careful, persistent pursuit, holds the promise of potential health and economic impacts that can "re-pay" investments many times over. Research success, however, retains a large element of serendipity in terms of the relationship between investment and pay off; years of promising, well-funded research may never result in a cure or even a stream of licensing payments.

- o **UHCC's approach to space allocation varies from industry norms.** Standard expectations regarding allocation of limited resources such as space involve relatively unique considerations at the University of Hawai'i. Elsewhere in academic cancer research, scarce space capacity is allocated to a large degree based on on-going, relative success attracting extramural support. Access to the best lab space is only as certain as one's long-term success competing to acquire and retain research support. The UHCC is not subject to this competitive dynamic for a variety of

³ As we emphasize elsewhere in our assessment, completing the shell space for clinical uses, especially without the support of major clinical partners, does not seem advisable. A clinical build out would involve a significant cost premium and may delay time-to-operation if Certificate of Need (CON) approval is needed. Further discussion on this point appears throughout this report.

idiosyncratic reasons. Some of these reasons include that the UHCC program does not fill the building, faculty compensation and resource allocation is subject to union agreement, UH tenure is inviolable, etc. With current standards, UHCC's financial efficiency, as compared to other cancer research centers, has many constraints.

- **Promote positives and resist recrimination.** UHCC's recent history of caustic interactions among stakeholders must cease, replaced by shared commitment to pursue measurable impact on the people of Hawai'i who face cancer as an adversary. Over the last several years, by almost every account, the UHCC's contributions have been especially limited by time and attention diverted to matters that have zero impact on advancing cancer research. A major contributing factor has been UHCC performance figures that have lacked credibility, clarity and reliability. Evidence suggests philanthropic support is sidelined by the uncertainty, and many others have taken notice, as is apparent in attention paid to this report.

In combination, decisions regarding structure, a new Director's commitment to efficiency and effectiveness, and increasing the use of the UHCC building should improve this situation. Rather than debating issues of the past, the paramount priorities of UHCC and its stakeholders should include highlighting scientific advances, identifying new lines of inquiry and pursuing approaches to deliver these into the lives of the people of Hawai'i in partnership with clinicians.

- **Change the center's name to UH Cancer RESEARCH Center.** This small revision to reflect reality would better represent the center's intent and could go a long way toward improving broad understanding of the center's role. UHCC, in almost all ways, is not comparable to other "cancer centers," including all those designated by the NCI. All other such cancer centers offer substantial clinical services in addition to fostering research.

The UHCC facility's lack of clinical capacity is a direct artifact of Hawai'i's environment. The small state's unique geography and demography coupled with the islands' relatively static healthcare provider landscape mean that the UHCC cannot succeed as a competitor in the clinical services market. At the same time, unique characteristics of Hawai'i also mean that the UHCC has peerless potential to contribute at home and beyond, particularly in the program areas featured by the UHCC (and emphasized as areas of greatest opportunity by the UHCC External Advisory Committee).

SECTION 3: RESPONSES TO COMMON QUESTIONS

There are several pointed questions we have faced in the course of our assessment, among the most common of which we address below.

Would closing the UHCC make sense? If UHCC ceased operation, the Hawai'i State Legislature would need to address legislation to ensure that cigarette tax proceeds would continue to service the debt issued to build the UHCC facility. The facility itself may then be dedicated to any viable other use. A full real estate valuation could estimate potential value. The State should expect that all direct and indirect benefit of the UHCC would be lost, including federal (NCI) grant revenue, collateral economic impacts and the leveraging of the unique resources and demography of Hawai'i in service of non-clinical cancer research. Clinical cancer research in the Islands would suffer a hard-to-forecast but likely negative impact. Other reports, including those reviewed in the course of our work and listed in our bibliography ([Exhibit G](#)), have covered these topics and should inform any estimate of opportunity costs potentially associated with closing the UHCC.

Can UHCC afford to retain the NCI-designation? Can UHCC's financial challenges be solved by allowing NCI-designation to lapse? Annual expenses to maintain NCI designation have been estimated at \$2.5 million⁴, associated with adding additional scientists to the UHCC faculty, but there is no precise amount of investment that can guarantee retention of NCI-designation. Costs associated with NCI designation are entwined with those that would be expected in operating a research institution, especially a cancer research institution, that is not designated.

Consider, however, that debate over the potential costs of sustaining NCI designation may be misguided. UHCC already has achieved NCI designation in a unique situation; a mainland cancer center with similar basic characteristics of scale, scope and potential population impact might never have expected the NCI recognition achieved by UHCC. Recognize that the NCI's chief purpose as a federal institute is to advance research and perfusion of discovery in a manner that impacts Americans (and other residents) in every state. As the only significant non-clinical cancer research venue in the state of Hawai'i, the UHCC sustains unique potential for NCI support, but must demonstrate progress, long-term commitment and clinical relevance in the fight against cancer in Hawai'i.

Does the MD Anderson Cancer Center agreement with Queen's threaten the UHCC? Not necessarily. Given the newness of the MDACC-Queen's relationship, announced last month, the future impact on the UHCC is uncertain. We anticipate that it may contribute positive momentum in activating the clinical research potential of Hawai'i's health care environment, a goal UHCC should share. MDACC's clinical experience and economic wherewithal are unbeatable. In contrast, UHCC offers no clinical operations experience, no clinical pathway implementation expertise, and never will be able to compete in these realms under any credible scenario. The Queen's-MDACC partnership promises a future where Hawai'i's residents receive best-practice clinical care without a trip to the mainland. Best-practice cancer care involves considering every patient's potential to find benefit in research, especially clinical trials. New access in Hawai'i to MDACC clinical trials may come with the arrangement and may complicate the local status quo related to clinical trials purview. Such research, however, does not pre-empt potential for UHCC research, especially in realms that are most specific to UHCC and the distinct characteristics of Hawai'i. In this view, any new research that stems from the

⁴ Detailed in April 2015 report, p 15, "UHCC Consortium & UHCC UH Foundation Accounts Philanthropy Support" <http://www.hawaiiHawaii.edu/news/2015/04/24/uh-manoa-issues-cancer-center-report/>.

Queen's-MDACC agreement only contributes to the UHCC's shared goal of advancing cancer research in the Islands. Connections between the Islands and the Seattle Cancer Care Alliance are another example of this compounding effect. It stands to make all stakeholders more aware of the potential to do better in the effort to deliver the benefits of research to the people of Hawai'i.

Would partnering with a mainland cancer center offer value? Yes, partnering is essential, but will offer no financial panacea. Partnering with other institutions can be especially beneficial for smaller-scale entities, offering an approach to participate in larger-scale opportunities. UHCC should continue to seek an assortment of partnerships to advance its research success. No mainland cancer center, however, is likely to see UHCC as a partner that merits extraordinary funding support or as an acquisition target. Hawai'i's small population appears dispersed and distant to any outside provider / research organizations; UHCC will not be a priority for significant investment by non-Hawai'i cancer centers. If people in Hawai'i cannot coalesce to support cancer research, no off-island rescuer(s) should be expected.

Can using UHCC facilities to conduct clinical trials add net income to the UHCC's finances? No. There is too little potential volume of clinical trials-related patient care to support the cost of establishing and operating clinical facilities and equipment at UHCC. Clinical research typically costs more to conduct than is paid for by its sponsoring grants. What's more, clinical capacity developed by UHCC alone, however intended, would be seen as competitive with existing clinical providers, including Consortium members.

That said, access to clinical trials can be very valuable to UHCC's Consortium partners. UHCC should foster clinical research wherever possible and contribute involvement and Primary Investigator-initiated research in conjunction with the local clinical resources. It is incumbent on the UHCC to demonstrate to the NCI, philanthropic supporters, Consortium partners and others that it strives to make UHCC research capabilities clinically relevant.

Could UHCC facilities be used for clinical care? A willing clinical partner potentially could offer to fit out some clinical capability at the UHCC location. In this scenario, impact on UHCC would presumably derive from the value of lease payments and building improvements, but clinical market dynamics and the limitations of the UHCC facility itself make virtually all clinical use unadvisable. If Bond constraints even allowed it, a sub-scale, limited-resource cancer care site in the UHCC might serve as swing capacity for renovations elsewhere. The UHCC could be leased to one or another of the Consortium members. But with no clinical adjacencies and many competitors channeling patient care, this does not appear to be a sensible long-term plan. If the UHCC facility were occupied by functions that were utterly unrelated to cancer research that would threaten NCI designation since it would be a measurable pullback from plans, and commitments made to the NCI, to devote the facility to cancer.

SECTION 4: PHASE II: BUSINESS PLAN DEVELOPMENT – PROPOSED NEXT STEPS

Our assessment has identified a number of items that necessitate resolution in advance of the development of a new business plan for the UHCC. A UHCC business plan would define how the UHCC intends to operate for the foreseeable future in order to make reliable progress in delivering on its mission.

As agreed, we conclude our Phase I: Assessment report with our proposal for Phase II: Business Plan Development steps, which include the following:

- Develop an Enterprise Fund plan
 - o Include due diligence to ensure compliance with the laws of the State of Hawai'i, policies of the UH and the covenants of the UHCC bond issue. Some of the proposed changes may require changes to current laws and policies.
 - o Compare two Enterprise Fund options: 1) UHCC-only versus 2) UHCC along with all functions of the Kaka'ako campus. For each of these two Enterprise Fund scenarios:
 - Develop a preliminary, accrual-based, set of financial statements for last three years
 - Develop a five-year financial forecast model with "status quo" assumptions based upon the last three years of accrual-based financial statements
- Refine the "status quo" assumptions for the following:
 - o Additional lease revenue for the unoccupied space of the completed portion of the UHCC building within the constraints of the tax-exempt Bond issue
 - o Additional net income from the completion of the shelled-in annex within the constraints of the tax-exempt Bond issue
 - o Incremental costs of maintaining NCI designation
 - o Performance standards for operations occurring in the UHCC and their anticipated financial impact, including in the areas of faculty productivity, salary levels, and extramural support
 - o Opportunities for further reductions in overhead and infrastructure costs
 - o Reasonable inflation rates for operational (ASK) expenses
 - o Refinancing options for the Bonds
 - o Future cigarette tax revenue amounts anticipated
 - o Future supplemental revenues from Foundation, State, UH, and Clinical Partners
 - o Number of current vacancies that must be filled, .i.e. New Director
- Set goals for increasing research grants and awards – from basic research to clinical trials – and develop plans for obtaining those grants and awards.
 - o Identify potential research growth opportunities and funding sources for this research could come from:
 - Clinical Partners through the Consortium
 - Joint venture with Mainland cancer centers
 - Increase in funded faculty researchers
 - Federal funding agencies, including but not limited to National Institutes of Health / National Cancer Institute, National Science Foundation, Department of Defense, Department of Energy and others
 - Commercial enterprises

- Estimate required subsidies to support this additional research
- Estimate UHCC value in a “Market” option, in which UH leases or otherwise cedes the use of the UHCC facility entirely to other UH departments or to outside entities. Though this is not our preferred scenario, understanding the estimated value will offer a way to compare forecasts for other scenarios
- Detail plans to transform the UHCC Consortium into the functioning, independent, and potentially ownership, entity for the UHCC with a Board comprised of members from Queens, HPH, JABSOM, community physicians and faculty physicians who have the authority to oversee and govern the UHCC operations
- Conduct direct and specific discussions with the National Cancer Institute about what will be required for retention of NCI designation (the CCSG P30 grant) and over what time period
- Discuss with two to four leading NCI-designated centers on the mainland their interest in investigating joint ventures with UHCC

APPENDIX A: UHCC FINANCIAL RESULTS FY 2013 – FY 2015

We reviewed in detail financials for Fiscal Year 2013 and forward. No review was conducted of financial results from before FY 13. Older figures were kept under a different financial system making them not readily available and not verifiable.

The past practice of using a cash basis of accounting makes it very difficult to compare UHCC's financial results from one period to another and to other cancer centers. For example, deferring maintenance expenditures can greatly influence the net margin of an entity and makes UH difficult to compare.

UHCC's net cash loss for FY 15 was \$6 million. In FY 13 and FY 14 it had been \$10 million.

In FY 15, primary cost savings efforts included lease terminations – at the Gold Bond Building and Queen's Lauhala Building – and UHCC hiring freeze initiatives, instituted by Dean Hedges, the Interim Cancer Center Director. Personnel savings related to the freeze may not be sustainable, including savings related to vacant positions for UHCC Director and Associate Director of Administration.

At the present negative cash flow rate the UHCC would have been slated to run out of cash in FY 17 except that a \$19.9 million transfer was made in FY 15 from the revenue bond's building fund in order to reimburse the cigarette tax fund for capital expenditures paid out from FY 11 to FY 14. This transfer has extended available cash to FY 19, notwithstanding expectations regarding the funding of depreciation, as mentioned below.

Cigarette tax revenues have been fairly steady for the past three years at around \$15 million. Except for one year, the tax has never been \$20 million as mentioned in other reports. Differences between years appear to be due to timing issues that involve when the tax was received. The tax was reduced by \$2 million from FY 12 to FY 13. Faculty salary support now accounts for over 50% of UHCC's use of cigarette tax proceeds, growing its portion of the tax funds from \$6 million in FY 13, to \$8 million in FY 14 and \$9 million in FY 15. UHCC receives no Hawai'i Tobacco Settlement Special Fund support.

UHCC held 180 grants in FY 15, smaller than the 250 held in FY 13, with some grants discontinued but others consolidated. Total operating expenditures in FY 15 were over 10% higher than they were in FY 13, rising to \$41.7 million from \$37.7 million. In FY 15, costs of "Other services" increased by \$3.5 million as the result of subcontracting work to outside entities for several of the grants.

In 2010, UH issued an A and a B series of bonds totaling \$138 million for the new UHCC building. Debt service is \$7.7 million annually. The Build America program provides Federal funds to cover 35% of the interest payments for the series B bonds.

In FY 15, the Regents requested that the UHCC fund a portion of its annual depreciation (and the internal, voluntary, reserve requirement has been set as 50% of the previous year's annual depreciation). If the expectation of funded depreciation continues into the future, UHCC's cash may run out in FY 18, all else being equal. This is an internally restricted fund and not a requirement of the Bonds; the Bonds do not require a Debt Service Reserve fund.

The unexpended bond funds total \$4.2 million, after reimbursing the cigarette tax fund \$19.9 million (as noted above). All of these unexpended bond funds have been encumbered for projects scheduled to be started before June 30, 2016.

University of Hawai'i Cancer Center							
Financial Review - All Funds excluding Bond Proceeds							
Fiscal Years 2013-2016							
				Actual	Actual	Actual	
				FY 2013	FY 2014	FY 2015	
Beginning Cash Balance				\$ 38,534,493	\$ 28,052,588	\$ 17,893,509	
Sources of Funds							
<i>Extramural Funds</i>							
	Gifts, Private Grants & Contracts			2,846,637	2,627,499	2,499,937	
	Federal Funds Revenue			18,537,026	19,469,629	22,607,771	
	Total Extramural Funds			21,383,663	22,097,128	25,107,708	
<i>State & University Allocations</i>							
	Sales, Discoveries, Inventions & Investments			177,043	35,807	61,699	
	Cigarette Tax Special Fund			14,381,791	15,791,740	14,802,465	
	State General Fund			2,244,590	2,148,420	2,209,830	
	Tuition & Fees Special Fund			755,240	9,414	755,017	
	Research & Training Revolving Fund			-	871,779	3,374,725	
	Total State & University Allocations			17,558,664	18,857,160	21,203,736	
	Total Sources of Funds			38,942,327	40,954,288	46,311,444	
Uses of Funds							
<i>Personnel & Research Operations</i>							
	Personnel Costs			18,533,224	20,757,530	20,589,330	
	Other Services			8,591,382	7,552,334	11,031,859	
	Supplies & Materials			2,803,836	2,928,835	2,524,740	
	Scholarships & Fellowships			232,833	158,422	60,373	
	Travel Expenses			680,958	543,334	499,493	
	Internal Transfers Out (Indirects)			4,227,163	3,892,162	4,352,144	
	Other Operating Expenses			2,695,099	2,080,311	2,621,456	
	Total Operations			37,764,495	37,912,928	41,679,395	
<i>Building & Equipment</i>							
	Repairs & Maintenance			280,814	362,273	325,417	
	Telephone & Utilities			1,448,123	2,260,537	2,117,052	
	Property/Equipment Purchases			2,135,431	2,669,652	671,951	
	Bond Debt Service			7,795,483	7,907,976	7,883,826	
	Total Building & Equipment Costs			11,659,851	13,200,438	10,998,246	
	Total Uses of Funds			49,424,346	51,113,366	52,677,641	
	Net Sources (Uses) of Funds			(10,482,019)	(10,159,078)	(6,366,197)	
Adjustments							
	Internal Transfer In-Bldg Fund To Operations			-	-	19,905,184	
	Internal Transfers Out-(R&R Contribution)			114	-	(3,117,934)	
	Net Adjustments			114	-	16,787,250	
Ending Cash Balance				\$ 28,052,588	\$ 17,893,509	\$ 28,314,563	

APPENDIX B: INDIRECT COSTS

Indirect costs are based on an indirect cost rate applied to certain direct costs (depending on the indirect cost base of the project as defined in the terms of award/grant funding). Indirect costs (IDC) may be based on the full negotiated Federal rate or a lesser rate. A lesser rate may be due to sponsor limitations or internal waiver requests.

For the UHCC, IDC rates are in the general range of expected rates for research. There does not seem to be an opportunity to improve these rates significantly.

The UHCC's IDC recovery rates are presented in the table below:

Indirect Cost Recovery (IDC) Rates for UHCC		
<u>Grant source</u>	<u>Research Locale</u>	
	On-Campus	Off-Campus
Organized (Government)	53%	24%
Instructional	40%	26%
Other Sponsored	32%	26%

The UHCC's composite IDC rate for FY 2015 was 38% (i.e., all the actual "dollars in the door" for indirects totaled 38% of the UHCC's total indirect costs).

The UHCC's IDC payments first must pass through the University of Hawai'i, which exacts approximately 50% of IDC received as it does for other UH research units. Therefore the UHCC's effective indirect cost recovery rate is approximately 19%, half its composite rate (i.e., 50% of 38% of actual "dollars in the door" that can be used by UHCC to pay indirect costs).

UHCC, however, shoulders many costs that other UH research units do not. UHCC's budget annually covers not only the more than \$7.5 million of debt service for the facility, but also approximately \$2 million in utilities, and \$5 million for other overhead costs, such as accounting, human resources, facilities management, and contracting. UH research units on the main Mānoa campus have these sorts of overhead services covered by the UH Mānoa Chancellor's central administration, as supported by the 50% "tax" on IDC payments. With UHCC left to cover its own overhead in this manner, the amount of IDC available to cover other operating costs at the UHCC is limited.

UHCC does, however, receive approximately \$15 million in cigarette⁵ tax funds annually that other research units within UH do not receive. Therefore at present the cigarette tax effectively goes to fund the infrastructure of the UHCC. Unfortunately this means that none of those cigarette tax funds are available to fund additional basic research and clinical trials.

⁵ Many interviewees referred to the "tobacco" tax, however, our understanding is that only cigarettes are affected and revenue from the sale of many other sorts of tobacco products does not accrue to the funds that touch the UHCC.

APPENDIX C: ENTERPRISE FUND CONSIDERATIONS

Enterprise Funds support accounting for any activity in which a fee is charged to external users for goods or services. Colleges and universities utilize enterprise funds principally for bookstore, cafeteria, parking, student housing, food service, and hospital business enterprise activities. Enterprise funds use the flow of economic resources as the measurement of focus, generally in keeping with the approach used by commercial entities. Usage for a government entity is not limited to fee-based revenue as tax subsidies and other funding revenues are allowed within Hawai'i. Both long-term assets and liabilities are reported on the balance sheet of enterprise funds. Some reasons that establishing an enterprise fund for the UHCC may be appropriate include the following:

- UHCC activities meet the definition of an enterprise fund under Hawai'i law.
- UHCCs interconnected healthcare research operations are "business-type activities".
- The enterprise fund type works better than the governmental fund type in the case of research-oriented cancer centers that participate in joint ventures (private contracts) and mixed financing transactions for government and private partnerships (consortium, technology transfer, etc.).
- More accountants and auditors are familiar with the full accrual basis of accounting and flow-of-economic-resources measurement focus, as opposed to the fund accounting using modified accrual basis/flow-of-current-resources focus. Thus the number of qualified accounting resources available to UHCC increases when the enterprise fund type is utilized.
- Equity in fixed assets is an important item to consider along with liabilities when evaluating UHCC and the typical governmental public university model does not measure this element fully at the department level.
- UHCC has an economic-flow-of-resources focus rather than a current-flow-of-resources focus. Therefore, UHCC should use the full accrual method of accounting and report both long-term assets and liabilities on their balance sheets.
- UHCC must rely on each year's funds (cigarette tax) to support that year's operations. As a result, UHCC focus should be on whether the entity is economically better off as a result of the events and transactions that have occurred during the fiscal year being reported.
- UHCC could operate its property development/management concerns similar to companies in the private sector.
- UHCC could operate its research core labs to generate fee-based revenue to both campus and outside organizations which better applies to the enterprise fund model than a more restrictive fund accounting model.
- Enterprise funds are allowed to follow FASB pronouncements unless otherwise exempt or restricted.
- The trend in governmental accounting is toward the full accrual basis of accounting and the flow of economic resources measurement focus.

APPENDIX D: OUTLINE OF UHCC FINANCIAL SYSTEMS

Data table downloads were requested and provided for the General and Payroll ledgers. Typical university ledgers have limited columns pertaining to official financial ledger reports. What was provided was extensive, non-ledger data that applied to numerous other campus and federal reporting requirements. This increased the size of electronic files exponentially which slowed analysis. The payroll ledgers were not useful as they also contained similar non-ledger information and did not include pay titles or descriptions of labor relations (labor group) codes. The general ledger fields were narrowed down to the essential ledger content, internal codes were deciphered and the resultant multi-year data was analyzed identifying possible opportunities. The ledger data could not be compared with any budget data as contracts and grants have individual budgets and only fund appropriations compared with expenditures. Working closely with the JABSOM CFO made it possible to produce balance sheets from the data. This process facilitated creation of a financial planning tool that both JABSOM and the Cancer Center can utilize going forward.

UHCC Current Financial Systems were reviewed.⁶ The Kuali Financial System (KFS) was implemented in 2012 and is the University's system-wide financial management system. KFS is utilized at many public, private and community higher education institutions. KFS is understood to be more of an academic institution system and is not recognized as well suited for cancer centers that interact with clinical operations partners. Most other cancer centers, including NCI-designated cancer research centers, function under an accrual method of accounting with a budget-to-actual management style.

UH also implemented "eThORITY" for its financial data query and reporting tool. "eThORITY," owned by Equifax, is known as a reporting tool that provides users with pre-formatted reports and graphs selected from a menu.

In the course of our review, we identified system integrity problems, inaccuracies, and lack of information created by the current system.

UH utilizes fund accounting for its system. The system appears to allow changes to be made even after the closing of the monthly financial ledgers (retroactive posting). Such actions revise previous ledger data which generates inaccuracies and variances. Reports at the department level may or may not include assets and liabilities, though many common university financial reporting systems use central controls for those items. This is problematic as the UH issues revenue bonds assigned to departments and incorporating them in university reports requires training and accounting skills. Variances between the review and business plan were due to different approaches to providing or omitting this information. The ledger data utilizes 14 fiscal periods (0-13) and accurate reporting necessitates proper period selection, especially with department Bond proceeds and expenditures. Additional problems include managing the labor force in summing the actual number of FTEs (various part-time or split positions) and the way in which personnel are financially defaulted to general funds when extramural funds expire. There may not be adequate "stop" or "cease payment" enforcements typically inherent in standard fund accounting systems. Department management and campus system oversight of existing funds varies in performance quality.

⁶ http://www.fmo.hawaii.edu/financial_systems/index.html

APPENDIX E: ASSESSMENT OF GRANTS AND AWARDS PROCESS

Our assessment of the grants and awards process is based on a high-level review of the UHCC Grants and Awards processes, including information gathered through telephone interviews and emails and a review of a portion of the training material. Due to time constraints there was no financial review, which is recommended for Phase II.

Current UHCC Grant and Award processes appear appropriately structured and reportedly have been improved from prior protocol. UHCC uses external resources and participates in multi-institution research when appropriate.

The reporting structure and division of responsibilities in the department and across the matrix are well documented, in line with better practices, and provide audit trails for compliance review.

The number of UHCC-associated clinical trials has decreased between 2013 and 2015 for several reasons, among them are consolidation of existing trials, reduced federal funding and reduced scope of some personal trials (from 30-40 participants to fewer than 8 in one instance).

Between 2013 and 2014, UHCC has experienced several disruptions to clinical trials efforts, including the loss of both the Clinical Trials Manager and the Compliance Officer, the implementation of a new clinical information system (Encore) and relocation of offices.

In our Phase I: Assessment, we did not conduct a thorough financial review of selected individual grants and awards, much less the entire portfolio. We also did not conduct analyses of workflow, though currently several areas are reviewing processes. Any opportunities for improvement and related changes that may be identified need to be coordinated to reduce administrative and procedural challenges, especially with inter-departmental communications

APPENDIX F: LIST OF INTERVIEWEES

[on following page]

First	Last	Role	Title
1 Simeon	Acoba, Jr	UH Regent	Associate Justice, Hawai'i Supreme Court (retired); Interim Honolulu County
2 Roz	Baker	Legislature	State Senator, 6th District
3 Patricia	Blanchette, MD, PhD	UHCC Leadership	Assoc Dir of Administration and COO, UHCC
4 Robert	Bley-Vroman	UH Leadership	Chancellor (Interim), UH Manoa
5 Mike	Carney, MD	UHCC Faculty / HPH med staff	Gyn Oncologist, Kapi'olani; Div Chief, JABSOM
6 Darlena	Chadwick, RN	Queen's Leadership	Vice President, Patient Care; Queen's Cancer Center team
7 Bob (Charles)	Ching	HPH Leadership	Exec VP & General Counsel, HPH
8 Isaac	Choy	State Representative	State Representative, District 23
9 Yaa-Vin	Fong	UH System - ORS	Director, Office of Research Services University of Hawaii System
10 Emmitt	Ford	UH System - ORS	Office of RSU, Kaka'ako Service Ctr Contracts & Grants Administrative Manager
11 Nancy	Foster	UHCC Leadership	CFO, UHCC/JABSOM
12 Scott	Halliday	Community Leader	President, National Medical Development, Inc
13 Kristeen	Hanselman, MLIR	Union - UHPA	Executive Director, UH Professional Assembly (UHPA)
14 Jerris	Hedges, MD, MS, MMM	UH Leadership	Dean, JABSOM; Professor (endowed); interim UHCC Director
15 Wei	Jia, PhD	UHCC Leadership	Prof, Cancer Epidemiology Program
16 Jeff	Killeen, MD	Kapi'olani - HPH med staff	Pathologist, Clinical Labs of Hawaii at Kapi'olani Medical Center
17 John	Komeiji	Community Leader	Senior Vice President and General Counsel, Hawaiian Telecom
18 Ben	Kudo	UH Regent	At-Large Seat
19 David	Lassner, PhD	UH Leadership	President, UH System
20 Randy	Moore	UH Regent	Chair, UH Board of Regents; At-Large Seat
21 Ian	Okazaki, MD	UH Faculty - Straub/HPH	Medical Oncologist; melanoma & urologic malignancies, BMT Clinic
22 Randy	Perreira	Union - HGEA/AFSCME	Exec Dir, Hawaii Government Employees Association, AFSCME Local 152, AFL-CIO
23 Virginia	Pressler, MD, MBA, FACS	Hawai'i DOH	Director of Health, State of Hawaii Department of Health
24 Joe	Ramos, PhD	UHCC Leadership	Program Director, Cancer Biology Program; Chief Academic Lead for UHCC
25 Larry	Rodriguez	Community Leader	EVP (retired), Central Pacific Bank
26 Charles	Rosser, MD, MBA, FACS	UHCC Leadership	Program Director, Clinical and Translational Research Program
27 Corrine	Seymour		JABSOM, Director of Fiscal and Administrative Services
28 Jeff	Shonka	Community Leader	President and CEO, First Insurance Co of Hawaii
29 Martha	Smith	HPH Leadership	CEO, Kapi'olani Medical Center
30 Earl	Stoner	Community Leader	Friends of UHCC
31 Vassilis	Syrmos, PhD	UH Leadership	Vice President for Research and Innovation
32 Stephen	Tabussi	Community Leader	Senior VP, First Insurance Company of Hawaii
33 Clifton	Tanabe, PhD	UH Leadership	UH Manoa Chancellor's office
34 Marcus	Tius, PhD, MS	UHCC Faculty	Director of Cancer Biochemistry and UH Manoa Natural Sciences Liaison
35 James	Turkson, PhD	UHCC Faculty	Prof & Prog Director, Natural Products and Experimental Therapeutics Program
36 Art	Ushijima	Queen's Leadership	CEO, The Queen's Medical Center
37 Ray	Vara, Jr	HPH Leadership	President & CEO, Hawai'i Pacific Health
38 Donna	Vuchinich	UH Foundation	President & CEO, UH Foundation
39 Randy	Wada, MD	UH Manoa Faculty - Nursing/Dental	Med Dir, Hawaii Bone Marrow Donor Registry; Peds Heme/Onc
40 Glenn	Wakai	Legislature	State Senator, District 15
41 Lynne	Wilkens, DrPH, MS	UHCC Faculty	Co-Director, Biostat & Informatics Shared Resource;
42 Thomas	Wills, PhD	UHCC Faculty	Program Director, Cancer Prevention and Control Program
43 Joanne	Yama	UH System - ORS	Associate Director of Cost Studies
44 Kalbert	Young	UH Leadership	VP, Budget & Finance/CFO, UH System
45 Herbert	Yu, MD, PhD, MSc	UHCC Leadership	Prog Director, Epidemiology Program; Assoc Dir, Cancer Control and Pop Sciences
46 Stanford	Yuen	UH Regent	Honolulu County
47 Julia	Zeghmi	Union - HGEA/AFSCME	Human Resources Manager; Site Representative for UHCC

APPENDIX G: BIBLIOGRAPHY OF WRITTEN DOCUMENTS REVIEWED

<u>Selection of Sources of Information reviewed included the following:</u>	<u>Date (month-year):</u>
Internal documentation	
UHCC Organization Chart	Aug-15
External Advisory Committee (EAC) Report dated July 7, 2015	Jul-15
Report on the Review of the University of Hawai'i Cancer Center	Jan-15
Kaka'ako Campus Business Plan Proposal	Apr-15
External Advisory Committee Report dated June 30, 2015	Jun-15
Grants and Awards report	Aug-15
UHCC Awards FY 12 to FY 15	Jul-15
Sources of funds for faculty researchers salaries	Aug-15
General Ledgers for FY 13, FY 14 and FY 15	Aug-15
UHCC Bond Summary	Aug-15
External Advisory Board (EAB) visit report on UHCC	Jan-14
Organizational Assessment of the UH Cancer Center	Jun-13
Ramos Testimony transcript before Board of Regents' Committee on Independent Audit	Feb-15
UHCC Faculty Workshop mtg notes and summaries	Aug-15
UHCC and UH Manoa Faculty Senate Resolutions on subject of UHCC Director	Jul-15
External documentation	
Cancer Incidence for the State of Hawai'i, 1978-2012 Revised August 2015	8/1/2015 (revised)
Age-Adjusted Death Rates for Hawai'i 2008-2015, All Cancer Sites, Races, Sexes	accessed 9/25/15
Hawai'i State Cancer Plan Executive Summary 2010-2015	c2010
The Queen's Medical Center Cancer Center Cancer Committee Annual Report 2013	2013
HPH 2013 Annual Cancer Report	2013
HPH 2011-2012 Cancer Report	2012
Select media coverage:	
Apple Unredacted: Did Attack on Carbone's \$300K 'Assistant' Precipitate UHM Chancellor?	8/12/2014
Carbone Fact Check by I Mua Manoa	11/26/2014
UHCC must overhaul its 'flawed' model, task force says	2015
Fitch Rates University of Hawaii's Revenue Bonds 'AA'; Outlook Stable	9/4/2015

APPENDIX II – THE CENTER’S FINANCIAL FORECAST

University of Hawaii Cancer Center General, Special and Revolving Funds Business Plan Financial Forecast								
	Actual	Projected	Forecast					Notes
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
Special & Revolving Fund Reserves (Beg. Bal.)	\$ 20,794,571	\$ 30,768,751	\$ 23,771,291	\$ 23,863,541	\$ 22,338,591	\$ 9,504,741	\$ 9,515,691	1
State & University Allocations:								
Cigarette Tax Fund Allocation	14,802,465	14,654,000	14,507,000	14,362,000	14,218,000	14,076,000	13,935,000	2
State General Fund Allocation	2,209,830	2,350,091	7,350,000	7,423,500	7,500,000	7,575,000	7,650,000	3
RTRF Allocation (FY15 includes carryover)	3,374,725	2,006,595	2,197,500	2,244,500	2,289,000	2,335,000	2,381,500	4
University Investment	755,017	285,096	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	5
Facilities Usage, Interest, & Transfers	61,699	1,203,806	-	500,000	1,000,000	1,250,000	1,275,000	4,7
Total Cancer Center G, S, & R Fund Allocations	21,203,736	20,499,588	25,554,500	26,030,000	26,507,000	26,736,000	26,741,500	
Facilities Operations Costs & Debt Service								
Facilities Debt Service	7,883,826	7,870,750	7,872,850	7,869,950	7,871,850	7,873,250	7,871,310	2
Facilities & IT Personnel	1,319,606	1,358,000	989,400	1,000,000	1,020,000	1,040,000	1,060,000	2,3
Facilities Oper, Maint, Repair & DM Renovations	6,232,354	5,585,000	5,000,000	5,000,000	5,250,000	5,500,000	5,500,000	2,4,8
Facilities Annex Construction Build Out	-	-	-	2,000,000	13,000,000	-	-	7
Total Building Operations & Debt Service	15,435,786	14,813,750	13,862,250	15,869,950	27,141,850	14,413,250	14,431,310	
Research Support Expenditures								
Research Personnel & Admin Operations	7,944,435	6,418,366	5,000,000	5,050,000	5,100,000	5,151,000	5,202,000	3
Research Program Support	5,528,811	4,466,766	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,5
Research Faculty & Program Investment	2,225,709	1,798,166	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000	4,5
New Executive Mgmt (2) & Admin Team (3)	-	-	1,000,000	1,020,000	1,040,000	1,060,800	1,082,000	3,5
New Faculty Recruits & Start Up	-	-	1,500,000	1,515,000	1,959,000	2,000,000	1,796,000	3,5,6
Total Research Support Expenditures	15,698,954	12,683,298	11,600,000	11,685,000	12,199,000	12,311,800	12,180,000	
Total Cancer Center G, S & R Expenditures	31,134,740	27,497,048	25,462,250	27,554,950	39,340,850	26,725,050	26,611,310	
Net Annual General, Special & Revolving Funds	(9,931,004)	(6,997,460)	92,250	(1,524,950)	(12,833,850)	10,950	130,190	
One Time CigTax Fund Reimbursement Transfer	19,905,184	-	-	-	-	-	-	
Special & Revolving Fund Reserves (End. Bal.)	30,768,751	23,771,291	23,863,541	22,338,591	9,504,741	9,515,691	9,645,881	1
Notes:								
1 Combination of Special (Tuition and CigTax) & Revolving (RTRF & Discoveries) reserves. CigTax bal = \$29,363,149; Tuition Special reserves = \$198,381, RTRF reserves = \$1,203,806, and Discoveries = \$3,415 at the end of FY 2015. Deferred maintenance reserves is NOT included as part of these totals. At June 2015 deferred maintenance reserve = \$3,117,934.								
2 The Center's annual cigarette tax revenue allocation is forecasted at a 1% decline. Cigarette tax covers all facilities costs including annual debt service and annual deferred maintenance reserve contribution of \$3.1 million. Per statute, any excess annual cigarette tax allocation revenue can be used to support research operations.								
3 The University is requesting \$4 - \$5 million of additional State general funds for FY17. This allotment of funds will assist the Center in balancing its annual budget. These funds are needed to also fund the Center's recruitment of the new director, associate director, admin team and research faculty. Using general funds instead of cigarette tax will save the Center approx. \$2M annually in personnel costs.								
4 In FY2015, the annual RTRF allocation included \$1.1 million of RTRF carryover. Beginning FY2016, only the 50% RTRF allocation is reflected on this line; however, in FY2016 the remaining \$1.2 million in RTRF reserves (reflected in the "Facilities usage, Interest, & Transfers" line) will be used to cover research support expenditures and facilities costs that cannot be charged to grants and costs.								
5 The Center received \$755,017 in tuition funds in FY2015. In FY2016, tuition of \$469,921 was returned to UH Manoa to cover Security services provided by UHM DPS. The University partners with the Legislature and increases its investment to \$1.5 million annually via a combination of special and revolving funds beginning in FY 2017 to reflect its commitment in support of the Center's NCI designation retention and research growth.								
6 In FY 2016, the Center has halted all recruitments of vacancies. Research expenditures have also been closely monitored to reduce the Center's annual deficit. Phase I-B will remodel the research faculty compensation and research investment structure. This remodeling along with new appropriations from the Legislature and University will allow for recruitment of 4 faculty in FY 2017 and another 2 in FY 2019. These recruitments are key to retaining the Center's NCI designation that brings in \$4.5 million in to Hawaii that would not be available without the designation. Securing sustainable state and University funding will allow the Center the opportunity to increase its extramural funding & RTRF revenue for research growth.								
7 Immediately reducing the use of the Center's cigarette tax RESERVE in FY17 will allow the Center to use the reserve to fund the build out of the shelled annex. The annex can then be used by the Med School or other related parties; thus generating a new revenue streams for the Center to pay for the annex use and building debt service as cigarette taxes decline. An added benefit of relocating the Med School units from the Gold Bond building to the Center's annex will provide the Center with tuition special funds, which has a fringe benefit usage savings component for the Center, and save the Med School from lease costs increases & GET expenditures.								
8 Facilities costs in FY 2016 are reduced from FY2015 as the Center no longer pays for its Lauhala lease and security costs were transferred to UH Manoa. If the Center's annex is built out in FY2019 facilities cost and annual deferred maintenance contribution will increase; however, space usage will be charged to the Medical School or another related University party to cover the costs of the increased utilities and pay for a portion of the debt service.								

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