

# **University of Hawai'i at Mānoa**

John A. Burns School of Medicine and UH Cancer Center



## **Kaka'ako Campus Business Plan Proposal**

April 2015 (revised)



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## Executive Summary

The University of Hawai'i at Mānoa (UHM) John A. Burns School of Medicine ("the School") and the University of Hawai'i's Cancer Center ("the Center") provide essential support to the state of Hawai'i in education, research, clinical services and economic development. As the only School and Center of their kind in Hawai'i and the Pacific, together, these high tech and high touch (health promoting) units compose the Kaka'ako Campus ("the Campus"). The Campus anchors the Kaka'ako area of Honolulu and provides a vital nidus (piko) for the biotech, health services and life science programs in Hawai'i.

### Why is a business plan needed?

- The University and state legislative support to the School and the Center is significantly declining; therefore,
  - The School and the Center must first apply these support dollars to cover their Kaka'ako Campus infrastructure costs;
  - Without additional mission-based support for faculty salary coverage equal to ~\$3.6M for the School and ~\$10.5M for the Center, in fiscal year 2017, the School will lose its medical school accreditation and the Center will lose its National Cancer Institute (NCI) designation.

These funding declines severely impact Hawai'i's workforce, new federal dollars coming into the state and most importantly, Hawai'i's future provision of health services.

***"Does the state wish to sustain the many unique benefits provided by the School and the Center at the Kaka'ako Campus and thus build upon its promise for further economic development as originally envisioned by the legislature and subsequently by multiple governors?" –Dean Jerris Hedges***

**The present proposal is an essential first step in the development of a complete plan. The purpose of this internal report is twofold.**

- To demonstrate the steps already put into action to reduce costs as a collective Kaka'ako Campus under the executive dean's leadership (serving as the School's dean and the Center's interim director), and to identify the additional annual resources required to retain a UH NCI designated Cancer Center and UH's Medical School's Liaison Committee for Medical Education (LCME) accreditation and to seek a funding model for the Center equivalent to comparable Organized Research Units (ORU) on the UH Mānoa campus.
- This plan also presents two additional funding scenarios associated with the loss of the Center's NCI designation. These models require less state investment, but result in the loss of key research faculty, indirect cost recovery, new federal dollars that stimulate the local economy and biotech business development and most importantly, expansion of cancer clinical treatment trials presently available for those who live in Hawai'i.

*Note: Picture on the front cover of this business plan proposal was taken by Andrea Brizzi.*

## Bringing a Health Workforce and Economic Value to Hawai'i

The Campus as a collective enterprise provides a return on investment to the state in terms of improved health, assurances of adequate health care providers, catalysis of scientific and health care advances and economic development in Hawai'i. A few of the many important features that the School, the Center and the Campus provide to Hawai'i are highlighted below. Please refer to Appendix 2 for a comprehensive summary of the value our collective health science enterprise provides to the state and its 'ohana.

### A Value Message from Hawai'i's Governor

On March 10, 2015, in response to the *U.S. News & World Report* release of its 2016 medical school rankings, Hawai'i State Governor David Ige commented:

*"Fifty years ago the John A. Burns School of Medicine (JABSOM) opened with a vision to provide the best medical education for our community. Today, **JABSOM was recognized as one of the top 20 medical schools in the country for primary care medicine.** Congratulations to Dean Jerris Hedges, the faculty, staff, students and alumni for fulfilling that vision. Primary Care is where doctors are needed most, on the front lines in family medicine, internal medicine, pediatrics, OB-GYN and emergency medicine. Building, strengthening and sustaining a medical school for Hawai'i has been a shared effort by public officials, our community hospital partners, and the citizens of our great State. Congratulations to all for a job well done."*

### Hawai'i's only Medical School Exceeds at Home and Nationwide

The School has kept its promise to the community made (nearly 50 years ago) to develop a school of medicine that is a top-notch educational institution and (a decade ago) to the state to also serve as a well-functioning research enterprise. Since its founding in 1965, the School has delivered tremendous value to our community.

#### Education and Service Facts:

- About half of all practicing physicians in Hawai'i are graduates of the School's MD program, its residency program or are faculty members. To date, more than 2,200 students have earned their MD degree at the School.
- Nearly 90% of the School's medical students are *kama'aina*, thus producing unique opportunity for a professional education to Hawai'i residents.
- In 2008, the School's MD program received an eight year reaccreditation—the maximum possible—and its Graduate Medical Education program received the maximum twelve year reaccreditation in 2013.
- The School ranks #1 in the nation by the Association of American Medical Colleges in retention of combined MD and resident alumni practicing in-state.
- The School's medical students have scored above the national average on the United States Medical Licensing Examination (USMLE) Step 1 exam for 10 of the last 11 years.
- Nearly 80% of the physicians highlighted as the "Best Doctors in Hawai'i" in *Honolulu Magazine* earned their MD degree or completed their residency at the School or currently serve as a faculty member.
- Approximately one-third of all babies delivered in the Hawai'i—virtually all high risk births and births by underprivileged moms—are attended by a faculty physician member of the School.

- The School's simulation center is one of only 13 accredited centers for health science training in the U.S.
- The School is the 19<sup>th</sup> ranked medical school in the country in Primary Care (out of more than 170 U.S. medical schools), based on the 2016 "Best U.S. Medical Schools" rankings released by *U.S. News & World Report*. The 19<sup>th</sup> ranking position is shared with University of California-Davis, UC-San Diego (UCSD) and the medical schools at the University of Chicago, the University of Pittsburgh and Washington University in St. Louis.

#### Research Facts:

- The School is also ranked in the top 75 in research—tied at 74 with the Robert Wood Johnson School of Medicine at Rutgers University. Last year the School's research was ranked number 78 in the *2016 U.S. News & World Report*.
- Prior to the School's move to Kaka'ako in 2005, the School ranked 111th in total National Institutes of Health (NIH) award dollars per the Blue Ridge Institute for Medical Research (BRIMR.org) that annually ranks NIH award funding among U.S. medical schools and the research principal investigators worldwide.
- In 2014 and 2013, the School ranked 83<sup>rd</sup> (out of 138) and 85<sup>th</sup> (out of 139), respectively, for U.S. medical schools receiving NIH award dollars. Note that these rankings emphasize total funding, not funding per compensated faculty member.
- In 2012, the School ranked in the top 20 alongside Stanford, Duke, UCSD, Yale and Johns Hopkins for NIH awards per full-time compensated faculty member. The School is the only public medical school with no university hospital in this upper echelon.
- For the last three years, the School has ranked #1 in total NIH research awards among community-based public medical schools (i.e., public medical schools without a university hospital).

### NCI Cancer Center Value—Bringing Clinical Trials to Hawai'i's 'Ohana

Each year more than 6,000 Hawai'i residents are diagnosed with cancer and more than 2,000 will die from the disease. In Hawai'i, cancer counts for more years of life lost than other health threats such as diabetes, heart disease, stroke and trauma. The racial/ethnic mixture in Hawai'i's population makes us unique (as compared with national norms) in the types and incidences of cancer. Those with Native Hawaiian or Filipino heritage have a disproportionate cancer death and morbidity burden.

The Center is one of only 68 NCI designated cancer centers in the U.S. There are estimated to be over 1,600 entities in the U.S. that call themselves a cancer center, but the relatively unique status conferred by being **NCI designated** has special meaning. As an NCI designated clinical cancer center, the Center and associated Hawai'i Cancer Consortium hospitals bring groundbreaking studies and protocols to our community and support the availability of cancer treatment trials across multiple treatment sites (different health systems and clinics).

As an NCI designated cancer center, the Center's investigators are more competitive for research grants. Nearly 7 of every 8 NCI grant dollars will go to an NCI designated cancer center. NCI designation alone brings to Hawai'i approximately \$4.5M annually in direct and indirect costs through the base Cancer Center Support Grant and affiliated grants for which only NCI designated centers may apply. Additionally, NCI Cancer Center designation provides:

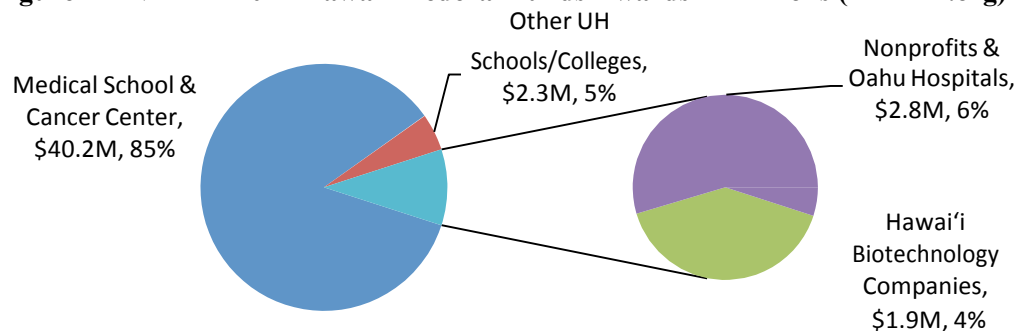
- Access to NCI approved clinical trials that are administered in Hawaii's local hospitals and clinics through the Center's Hawai'i Cancer Consortium.
- Programs that help keep local practitioners current with therapies and clinical trial data reporting.
- Better access to federal cancer grants for investigators at UH and in the community.
- Enhanced recruitment of top national cancer research talent.

The Center helps coordinate patient access to multicenter national/international clinical trials/studies through community hospitals, physician offices and local outpatient cancer clinics in Hawai'i. This means many Hawai'i residents do not have to leave the state to access potentially better care and receive life-saving treatment breakthroughs. In 2014, working with Hawai'i's hospitals, the Center's faculty clinicians gave Hawai'i's adult and pediatric cancer patients access to approximately 100 different national clinical trials locally. Loss of the NCI-Cancer Center designation would have a significant impact on Hawai'i (see Appendix 3 for more details).

### New Dollars into Hawai'i

In fiscal year 2014, the National Institutes of Health (NIH) awarded over \$47M to fund health research in Hawai'i. Together the School and the Center were awarded \$40.2M or 85% of the total NIH dollars provided to Hawai'i (as reported by BRIMR.org).

**Figure 1 – NIH FY 2014 Hawai'i Federal Funds Awards in Millions (BRIMR.org)**



These are new dollars for Hawai'i's economy and would not likely come to Hawai'i were there not a School and a Center that provided research infrastructure and a highly visible academic home. These federal dollars support the local economy through salaries, supplies, equipment and other consumer goods. Prior UHM financial analyses has shown that these dollars (like those for other UH research units) have a tax generation factor of at least two times—i.e., as the dollars are spent on research services, the monies are again used in the community on additional purchase of goods and services that generate state general excise and county taxes each time the dollar is expended Hawai'i.

### Value to our Community is Shared with Our Medical Center Partners

The School and the Center are community-based, meaning the University does not have a designated hospital whereby all education and research activity are conducted. Community-based health education and research brings a unique value to Hawai'i. Students are exposed to practice settings more typical of their future medical practice. Students have access



to a wider variety of patients with more opportunity to develop and practice clinical skills, coupled with greater continuity across a broader continuum of care. Finally, communities are better able to access the up and coming physician workforce and thus better able to address local physician shortages through recruitment and retention of medical graduates. Interacting with and learning from people within our communities expands the health knowledge used to care for our ‘ohana and channels our research programs to improve the health of those in our communities—associated with a wide range of social, cultural and ethnic diversity representing the humanistic fabric of Hawai‘i.

## The Kaka‘ako Campus, UH’s New Health Campus

The University of Hawai‘i’s (UH) medical school, established in 1965 as a two-year program, was first accredited by the Liaison Committee on Medical Education (LCME) as a four-year community based medical school in 1973. In 2005, the John A. Burns School of Medicine (the School) relocated from the University of Hawai‘i’s flagship Mānoa campus to its new medical education and research buildings, becoming UHM’s anchor tenant in Honolulu’s Kaka‘ako district campus location.

This campus relocation was essential for subsequent re-accreditation of the School, as the School had narrowly averted probationary status (concerns raised by the LCME included a deteriorating facility, limited faculty numbers and absence of a functional clinical faculty practice plan). Ironically, in 2004, shortly after ground breaking for the new campus, the UHM Biomedical Building was flooded and subsequently unusable for either research or education for over a year. Thus the state’s investment in a new facility at Kaka‘ako provided an important bridge for sustaining life-sciences research and education by UH.

UH’s Cancer Center was established in 1981 as a Cancer Research Center. In its early development, the Center was supported by the National Cancer Institute (NCI) Planning and Support Grants and in 1979, a construction grant from the NCI coupled with local matching contributions, supported the building of a small five-story structure in downtown Honolulu. In 1996, the unit obtained its NCI Cancer Center Support Grant (CCSG) and was thereby formally established by the NCI as a designated clinical cancer center. The Center renewed its CCSG grant in 2000 but only received probationary funding in the 2006 renewal process. Between 2009 and 2012 the Center received funded an unprecedented three CCSG extensions as the Center grew its programs and improved its infrastructure.

In 2011 the Center reapplied on the strength of the formation of a partnership (Hawai‘i Cancer Consortium) with several local teaching hospitals and the medical school to foster clinical trials and locally relevant research. This competitive application was strengthened by the enhanced clinical trial opportunities in Hawai‘i and groundbreaking on a new building to consolidate the Center’s faculty and operations. In 2012, the Center’s competitive renewal was awarded for a full five years by the NCI.

Note that a new research building was essential for survival of the Center for several reasons: 1) the original Center building had a limited life span as its lease was expiring; 2) the original building was too small to house the current Center’s operations; and 3) the original building was rapidly deteriorating and even if the Center operations were smaller, renovation of the building was cost prohibitive. In 2013 the new building was completed, and the Center began consolidating its operations into its new research building located adjacent to the School on UHM’s Kaka‘ako Campus.



## **Funding the Campus Construction, Debt Service and Campus Operations**

Instead of issuing Hawai'i general obligation bonds to fund the construction for the School's four buildings and the Center's new research buildings at Kaka'ako, the University issued tax-exempt revenue bonds. To financially back these new revenue bonds, the state's legislature pledged cigarette tax revenues (the Center) and master settlement agreement tobacco special funds (the School) to ensure the University's annual revenue bonds' debt service is funded. Additionally, the legislature approved for any cigarette tax revenues and tobacco settlement special funds allocated to the Center and the School, respectively, in excess of the bonds' annual debt service to be retained by the Center or the School to use for campus operations costs. The use of excess tobacco settlement special funds for operations of the School will sunset in June 2015.



## State Funding Declines, Requires a New Campus Plan

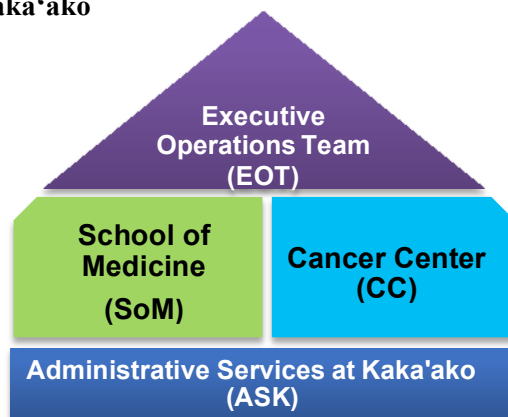
In the last 5 years the cigarette tax revenue allocated to the Center has declined over 25%. Additionally, the School's tobacco settlement special fund (TSSF) appropriations have been reduced from 28% to 26% effective June 30, 2015. It is expected that the state's overall TSSF revenue appropriation will decline another 20% (from ~\$50M to ~\$40M) in the next few years. These cigarette tax revenue and tobacco settlement special fund reductions force the School and the Center to repurpose its University appropriations of general, tuition and Research Training and Revolving Funds (RTRF) to fully cover the administrative services at the Kaka'ako campus as funding declines. Legislative support for the UHM as a whole has declined significantly from 2009 to 2014, and the Mānoa administration reduced allocations of general funds to all units, including to Kaka'ako. The Kaka'ako leadership has argued that cuts should be reversed and allocations to Kaka'ako restored to the level of the original legislative appropriation. However, the strained overall fiscal situation makes it difficult to do this without damaging other core functions of the University.

### Measures to Maximize the Campus, the School and the Center's Resources

The state funding declines have a trickledown effect on the School's and the Center's mission-based appropriations budgets, including placing the School's LCME accreditation and the Center's NCI designation status continuance, respectively, in jeopardy. Therefore, in December 2014 shortly after the School's dean was also appointed as the Center's interim director, the Dean assembled leadership from both units and created a new vision for the Kaka'ako campus and its units.

Figure 2 illustrates the Dean's new Kaka'ako health campus leadership unification concept. Under the executive leadership of the School's dean, the mission of the Hale Ola o Kaka'ako (i.e. Kaka'ako's health campus or hale) is to improve the health of Hawai'i through education, research and service. The Hale Ola o Kaka'ako leadership concept will consist of a small executive operations team (i.e. the roof of the hale) comprised of currently existing positions in the School and the Center to oversee the campus (see Appendix 5 for the credentials of two of the three leaders in the Executive Operations Team). There are also three distinct budgetary campus units: the School, the Center and the Administrative Services at Kaka'ako (ASK) unit.

**Figure 2 - Hale Ola o Kaka'ako**



With optimization of resources and increased research opportunities as its Hale Ola o Kaka'ako vision's goals, the following core measures are being implemented by the School and the Center.

**Campus Unit's Core Fiscal Integrity Measures:**

1. Restructure faculty recruitment and investment into key programs.
  - a. Invest in programs needed for the state in the areas of biomedical technology, translational research and physician workforce.
  - b. Faculty recruitment requires pre-determined and time-dated goals for success that have at least a 25-50% entrepreneurial culture component.
2. Merge administrative and campus infrastructure teams to operate efficiently with the goal of eliminating redundancy (i.e. the newly merged ASK unit).
  - a. Eliminate the imaginary ownership lines between units.
  - b. Reduce redundant campus operations and core administrative workforce.
  - c. Provide economy of scale procurement.
  - d. Share administrative expertise and experience to reduce processing delays.
3. Build synergistic collaboration operating as a unified education and research campus.
4. All School and Center temporary faculty or staff must be hired with extramural funds, no exceptions.
5. New School permanent clinical education faculty recruitments must fund at least 50% of their annual compensation after two to three full years of employment.
6. New School basic science instructional research permanent faculty recruitments must fund at least 25% of their annual compensation after two to three full years of employment.
7. School departments and Center programs must review their budget to actuals quarterly to ensure they are not over-extending their budget appropriations.
8. School and Center tuition and fees special funds should only be used for education and RTRF should only be used for research related expenditures.
9. Collective bargaining increases for temporary faculty must be covered with extramural funds.

**A New Cancer Center Direction:**

1. The Center director will report to the School dean for all administrative and academic matters.
  - a. The Center director will oversee all academic programs on behalf of the Center, manage the assigned Center resources and work with the dean to develop philanthropic, practice management, intellectual property and other resources for the advancement of the Center's mission.

- b. Immediate establishment of the above vision and leadership understanding through written executive directive.
  - c. Codification of above vision and leadership through reorganization process in FY2016.
2. Placement of the Center's budget under the School's state budget line; codified by reorganization process in FY 2016.
3. Support from UH Mānoa for the development of a new melded promotion/tenure model at Kaka'ako Campus—that acknowledges the goal of greater FTE support by faculty member extramural activity and incorporation of collaborative scholarship and clinical translational research is required.
4. Codification of the process for written approval by which facilities upkeep and personnel matters are taken directly to UH System for approval for expediency.
5. Assistance (including the inclusion in subsequent UH System legislative asks) for obtaining additional external support for general funded faculty NCI Center new hires to ensure NCI Cancer Center designation.
6. Reorganize the Center's programs to minimize the number of needed recruitments:
  - a. Consider splitting the cancer biology program into two programs: cancer biology and natural products and experimental therapeutics (NPET), providing consistency with the Center's vision.
  - b. Merge the prevention and control program into the population sciences (PS) program; whereby, PS would have two sub-units: epidemiology and prevention and control.
7. Recruit five research faculty that have active NCI R01 grants to complete the Center's current NCI funding requirements.
  - a. These recruits include two faculty members for cancer biology and four new recruits for NPET.
  - b. The new Center director will be one of these new hires.
  - c. The new researchers (if sufficiently senior with stable national cancer relevant funding) will receive a \$500,000 startup package funded over 3 years by the Center's Hawai'i Cancer Consortium.
  - d. Starting annual recruitment salaries (for senior funded researchers) paid via UH will be approximately \$150,000.
  - e. New recruits will be required to fund 25% of their FTE with extramural funds after 3 years of employment.
8. The School and the Center will begin combining and sharing their research cores and equipment in genomics (DNA sequencing, microarrays), microscopy and histopathology to reduce resource redundancy and increase synergistic collaboration. Specifically,
  - a. Genomics will be relocated from the School to the Center, resulting in less personnel management resources.
  - b. The Center's faculty, who conduct animal studies, will use the histopathology core at the School, and manage one-third of the School's animal vivarium.

- c. A new nuclear medicine resonance machine will be placed in the School's ancillary building and used by the Center and School's faculty for study of potential therapeutic molecules as part of a new drug discovery process.
  - d. The School's newly renovated translational research clinic will be used by both the School's and Center's research clinicians.
9. The Center continues to merge its central administrative and infrastructure personnel along with the School into a single campus ASK unit. Only a core research operations administrative team will remain in the Center.

## Revised Financial Plans

The merger of the School and Center Administrative Services at Kaka'ako (ASK) units is needed to optimize use of the state and University appropriated resources. The resource synergy benefits associated with the ASK units consolidating is forecasted in the financial reports summarized in Figures 3, 4 and 5. Also reflected in these financial plans are the negative effects from repurposing the University's allocations to the School and the Center to fund cigarette tax or tobacco settlement special fund appropriation declines (i.e. funds that support the campus buildings' debt service included in the campus ASK costs). Specific items of interest in the financial plans reported in Figures 3 through 5 are:

### Kaka'ako Consolidated Financial Report Items of Interest (Figure 3)

- Reduction of cigarette tax revenues funding Kaka'ako buildings and operations listed in the ASK section are **forecasted** declines of approximately 2% per year.
- Reduction of tobacco settlement special funds (TSSF) in FY16 is a legislative action, effective July 1, 2015. The School's tuition funds will be used to fill the gap.
- Reduction of ASK staff is due to attrition over a three-year period and some transfers to administrative support for the Center's research operations.

### John A. Burns School of Medicine Financial Report Items of Interest (Figure 4)

- It is essential that the University find a way to allocate funds to compensate for the decline in TSSF. A slight increase in MD tuition differential is expected from the increase in tuition.
- A slight increase in RTRF is also expected.
- All salaries remain flat until collective bargaining agreement salary increases are funded by the state.

### Cancer Center Financial Report Items of Interest (Figure 5)

- New faculty research recruits are required to maintain the Center's NCI designation.
- Startup support for the new faculty recruits hired in the next three years is anticipated to be funded by the UH Hawai'i Cancer Consortium.
- All cigarette tax revenues are applied to the ASK unit before using the dollars for the research operations.
- New Center director is anticipated to be hired in January 2016.
- Translational faculty will be split funded for 3 years via the Center and the Consortium.
- ASK savings are 60% elimination of lease costs, employee transfers and attrition.
- Cigarette tax revenue declines are forecasts based on historical trends.

**Figure 3 – Kaka'ako Campus Consolidated Financial Report**

	Kaka'ako Consolidated Financial Report				
	Projected		Forecasted		
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Mission Based Operations</b>					
<i><b>Appropriated Funds</b></i>					
State General Fund Appropriations	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376
Tuition, Fees & Outreach Appropriations	8,759,311	5,673,658	6,055,996	6,103,915	5,838,399
MD Tuition Differential Allocation	6,076,658	6,076,657	6,198,190	6,508,100	6,638,262
Revolving Funds - Admission Fees	198,444	200,000	200,000	200,000	200,000
Revolving Funds - RTRF Allocation	2,910,912	2,900,000	2,919,000	2,938,190	2,957,572
Physician Workforce & Community Services	515,640	25,000	515,640	25,000	515,640
<b>Total Appropriations Funding</b>	<b>34,541,341</b>	<b>30,955,691</b>	<b>31,969,202</b>	<b>31,855,581</b>	<b>32,230,249</b>
<i><b>Expenditures</b></i>					
Personnel Costs - Faculty	32,679,232	32,385,313	32,385,313	32,385,312	32,385,312
Personnel Costs - Graduate Assistants	586,539	516,901	516,901	516,901	516,901
Personnel Costs - Academic & Research Support Staff	3,599,220	3,939,566	3,939,566	3,939,566	3,939,566
Materials, Supplies, Equipment, Travel, Other	6,331,344	5,993,200	6,021,586	6,050,255	6,079,211
<b>Total Current Research Operations</b>	<b>43,196,336</b>	<b>42,834,981</b>	<b>42,863,366</b>	<b>42,892,034</b>	<b>42,920,990</b>
<i>Cancer Center New Additions to Maintain NCI Certification:</i>					
Personnel Costs - 5 New PhD Faculty over 3 yrs	-	420,000	840,000	1,050,000	1,050,000
Personnel Costs - 4 Split Translation Faculty over 4 years	-	210,000	420,000	630,000	840,000
Personnel Costs - New UHCC Director & P30 Administration	-	610,087	860,089	860,089	860,089
New Recruitment Startup Costs - 3 yrs only	-	-	-	-	-
<b>Total New Additions to Maintain NCI Certification</b>	<b>-</b>	<b>1,240,087</b>	<b>2,120,089</b>	<b>2,540,089</b>	<b>2,750,089</b>
<b>Total Mission Based Operations Expenditures</b>	<b>43,196,336</b>	<b>44,075,068</b>	<b>44,983,455</b>	<b>45,432,123</b>	<b>45,671,079</b>
<b>Net Profit (Loss) from Mission Operations</b>	<b>(8,654,995)</b>	<b>\$ (13,119,377)</b>	<b>\$ (13,014,253)</b>	<b>\$ (13,576,542)</b>	<b>\$ (13,440,830)</b>
\$					
<b>Administrative Services Kaka'ako (ASK) Campus Operations:</b>					
<i><b>Appropriations</b></i>					
General Fund Appropriations	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952
Tuition & Fees Special Fund Appropriations	4,160,931	7,246,585	6,742,714	6,384,885	6,520,239
RTRF Allocation & Facilities Revolving Funds	6,609,086	3,358,162	3,391,744	3,425,661	3,459,918
Tobacco Settlement Special Funds (28% to 26% in FY2016)	12,600,000	9,864,700	10,037,900	10,052,088	10,052,088
Cigarette Tax Special Funds (Estimated annual 2% decline)	14,740,731	14,445,916	14,156,998	13,873,858	13,596,381
<b>Total Appropriations Funding</b>	<b>40,603,700</b>	<b>37,408,316</b>	<b>36,822,307</b>	<b>36,229,444</b>	<b>36,121,577</b>
<i><b>Expenditures</b></i>					
Personnel - HR, Fiscal, Contracts, Communication Staff	4,248,107	3,422,672	3,297,672	3,172,672	3,047,672
Personnel - Facilities Management & Information Staff	3,432,444	3,432,444	3,432,444	3,432,444	3,432,444
Infrastructure - Utilities, Telephone, Rentals, Repairs, Leases, Other	12,680,562	10,250,562	9,799,789	9,495,785	9,685,700
Shared Campus - Vivarium, HCDA, Security, Trash, Water	2,485,525	1,985,500	2,025,210	2,065,714	2,107,028
Debt Service & Bond Costs	17,757,062	17,584,712	17,760,012	17,771,300	17,771,300
<b>Total Expenditures</b>	<b>40,603,700</b>	<b>36,675,890</b>	<b>36,315,127</b>	<b>35,937,915</b>	<b>36,044,145</b>
<b>Net Profit (Loss) from Kaka'ako Campus Operations</b>	<b>\$ -</b>	<b>\$ 732,425</b>	<b>\$ 507,180</b>	<b>\$ 291,529</b>	<b>\$ 77,432</b>

**Figure 4 – John A. Burns School of Medicine's (JABSOM) Financial Report**

	John A Burns School of Medicine				
	Projected	Forecasted			
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Mission Based Operations</b>					
<i><b>Appropriated Funds</b></i>					
State General Fund Appropriations	\$ 13,870,431	\$ 13,870,431	\$ 13,870,431	\$ 13,870,431	\$ 13,870,431
Tuition, Fees & Outreach Appropriations	8,055,560	4,969,907	5,352,245	5,400,164	5,134,648
MD Tuition Differential Allocation	6,076,658	6,076,657	6,198,190	6,508,100	6,638,262
Revolving Funds - Admission Fees	198,444	200,000	200,000	200,000	200,000
Revolving Funds - RTRF Allocation	1,133,468	1,000,000	1,000,000	1,000,000	1,000,000
Physician Workforce & Community Services	515,640	25,000	515,640	25,000	515,640
<b>Total Appropriations Funding</b>	<b>29,850,201</b>	<b>26,141,995</b>	<b>27,136,506</b>	<b>27,003,695</b>	<b>27,358,981</b>
<i><b>Expenditures</b></i>					
Personnel Costs - Faculty	23,631,096	23,631,096	23,631,096	23,631,095	23,631,095
Personnel Costs - Graduate Assistants	423,301	423,301	423,301	423,301	423,301
Personnel Costs - Academic & Research Support Staff	2,883,460	2,883,460	2,883,460	2,883,460	2,883,460
Materials, Supplies, Equipment, Travel, Other	2,838,529	2,838,529	2,866,914	2,895,583	2,924,539
<b>Total Mission Based Operations Expenditures</b>	<b>29,776,387</b>	<b>29,776,387</b>	<b>29,804,772</b>	<b>29,833,440</b>	<b>29,862,396</b>
<b>JABSOM Net Profit (Loss) from Mission Operations</b>	<b>73,814</b>	<b>(3,634,392)</b>	<b>(2,668,266)</b>	<b>(2,829,745)</b>	<b>(2,503,415)</b>
<b>Administrative Services Kaka'ako (ASK) Campus Operations:</b>					
<i><b>Appropriations</b></i>					
General Fund Appropriations	2,492,952	2,492,952	2,492,952	2,492,952	2,492,952
Tuition & Fees Special Fund Appropriations	4,160,931	7,246,585	6,742,714	6,384,885	6,520,239
RTRF Allocation & Facilities Revolving Funds	5,377,791	3,358,162	3,391,744	3,425,661	3,459,918
Tobacco Settlement Special Funds (debt service only in FY16)	12,600,000	9,864,700	10,037,900	10,052,088	10,052,088
<b>Total Appropriations Funding</b>	<b>24,631,674</b>	<b>22,962,399</b>	<b>22,665,309</b>	<b>22,355,586</b>	<b>22,525,196</b>
<i><b>Expenditures</b></i>					
Personnel - HR, Fiscal, Contracts, Communication Staff	1,885,711	1,885,711	1,885,711	1,885,711	1,885,711
Personnel - Facilities Management & Informations Staff	1,937,263	1,937,263	1,937,263	1,937,263	1,937,263
Infrastructure -Utilities, Telephone, Rentals, Repairs, Leases, Other	9,289,225	7,789,225	7,289,225	6,935,010	7,073,710
Shared Campus-Vivarium, HCDA, Security, Trash, Water	1,485,525	1,485,500	1,515,210	1,545,514	1,576,424
Debt Service & Bond Costs	10,033,950	9,864,700	10,037,900	10,052,088	10,052,088
<b>Total Expenditures</b>	<b>24,631,674</b>	<b>22,962,399</b>	<b>22,665,309</b>	<b>22,355,586</b>	<b>22,525,196</b>
<b>JABSOM's Net Profit (Loss) from ASK Operations</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Figure 5 – Cancer Center's Financial Report**

	CancerCenter				
	Projected	Forecasted			
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Mission Based Operations</b>					
<b>Appropriated Funds</b>					
State General Fund Appropriations	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945
Tuition, Fees & Outreach Appropriations	703,751	703,751	703,751	703,751	703,751
Revolving Funds - RTRF Allocation	<u>1,777,444</u>	<u>1,900,000</u>	<u>1,919,000</u>	<u>1,938,190</u>	<u>1,957,572</u>
<b>Total Appropriations Funding</b>	<b>4,691,140</b>	<b>4,813,696</b>	<b>4,832,696</b>	<b>4,851,886</b>	<b>4,871,268</b>
<b>Expenditures</b>					
Personnel Costs - Faculty	9,048,136	8,754,217	8,754,217	8,754,217	8,754,217
Personnel Costs - Graduate Assistants	163,238	93,600	93,600	93,600	93,600
Personnel Costs - Academic & Research Support Staff	715,760	1,056,106	1,056,106	1,056,106	1,056,106
Materials, Supplies, Equipment, Travel, Other	<u>3,492,815</u>	<u>3,154,671</u>	<u>3,154,671</u>	<u>3,154,671</u>	<u>3,154,671</u>
<b>Total Current Research Operations</b>	<b>13,419,949</b>	<b>13,058,594</b>	<b>13,058,594</b>	<b>13,058,594</b>	<b>13,058,594</b>
<b>Cancer Center New Additions to Maintain NCI Certification:</b>					
Personnel Costs - 5 New PhD Faculty over 3 yrs	-	420,000	840,000	1,050,000	1,050,000
Personnel Costs - 4 Split Translation Faculty over 4 years	-	210,000	420,000	630,000	840,000
Personnel Costs - New UHCC Director & P30 Administration	-	610,087	860,089	860,089	860,089
New Recruitment Startup Costs - 3 yrs only	-	-	-	-	-
<b>Total New Additions to Maintain NCI Certification</b>	<b>-</b>	<b>1,240,087</b>	<b>2,120,089</b>	<b>2,540,089</b>	<b>2,750,089</b>
<b>Total Mission Based Operations Expenditures</b>	<b>13,419,949</b>	<b>14,298,681</b>	<b>15,178,683</b>	<b>15,598,683</b>	<b>15,808,683</b>
<b>Cancer Center Net Profit (Loss) from Mission Operations</b>	<b>(8,728,809)</b>	<b>(9,484,985)</b>	<b>(10,345,987)</b>	<b>(10,746,797)</b>	<b>(10,937,415)</b>
<b>Administrative Services Kaka'ako (ASK) Campus Operations:</b>					
<b>Appropriations</b>					
RTRF Allocation (Lauhala & Gold Bond Lease ended in FY15)	1,231,295	-	-	-	-
Cigarette Tax Special Funds (Estimated annual 2% decline)	<u>14,740,731</u>	<u>14,445,916</u>	<u>14,156,998</u>	<u>13,873,858</u>	<u>13,596,381</u>
<b>Total Cancer Center Appropriations Funding</b>	<b>15,972,026</b>	<b>14,445,916</b>	<b>14,156,998</b>	<b>13,873,858</b>	<b>13,596,381</b>
<b>Expenditures</b>					
Personnel - HR, Fiscal, Contracts, Communication Staff	2,362,396	1,536,961	1,411,961	1,286,961	1,161,961
Personnel - Facilities Management & Informations Staff	1,495,181	1,495,181	1,495,181	1,495,181	1,495,181
Infrastructure - Utilities, Telephone, Rentals, Repairs, Leases, Other	3,391,337	2,461,337	2,510,564	2,560,775	2,611,991
Shared Campus-Vivarium, HCDA, Security, Trash, Water	1,000,000	500,000	510,000	520,200	530,604
Debt Service & Bond Costs	<u>7,723,112</u>	<u>7,720,012</u>	<u>7,722,112</u>	<u>7,719,212</u>	<u>7,719,212</u>
<b>Total Cancer Center ASK Expenditures</b>	<b>15,972,026</b>	<b>13,713,491</b>	<b>13,649,818</b>	<b>13,582,329</b>	<b>13,518,949</b>
<b>Cancer Center's ASK Net Profit (Loss)</b>	<b>\$ 0</b>	<b>732,425</b>	<b>507,180</b>	<b>291,529</b>	<b>77,432</b>

<b>UHCC Consortium &amp; UHCC UH Foundation Accounts Philanthropy Support</b>					
	FY2015	FY2016	FY2017	FY2018	FY2019
UH Foundation - Investment Expendables	475,928	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
UHCC Consortium Funding	<u>1,154,045</u>	<u>1,037,365</u>	<u>1,597,365</u>	<u>2,307,365</u>	<u>2,517,365</u>
<b>Total Support Funds</b>	<b>1,629,973</b>	<b>1,337,365</b>	<b>1,897,365</b>	<b>2,607,365</b>	<b>2,817,365</b>
<b>Commitment Expenditures:</b>					
Personnel Costs - Faculty, Staff and Graduate Assistants	788,291	150,000	150,000	150,000	150,000
Materials, Supplies, Equipment, Travel, Other	841,682	477,365	327,365	327,365	327,365
<b>New Additions to Maintain NCI Certification:</b>					
Personnel Costs - New Translation Faculty Partial Funding (4)	-	210,000	420,000	630,000	840,000
New Recruitment Startup Costs - 3 yrs only (10)	-	<u>500,000</u>	<u>1,000,000</u>	<u>1,500,000</u>	<u>1,500,000</u>
<b>Total Research Operations Expenditures</b>	<b>1,629,973</b>	<b>1,337,365</b>	<b>1,897,365</b>	<b>2,607,365</b>	<b>2,817,365</b>
<b>Net UHF &amp; UHCC Support Funds Profit (Loss)</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

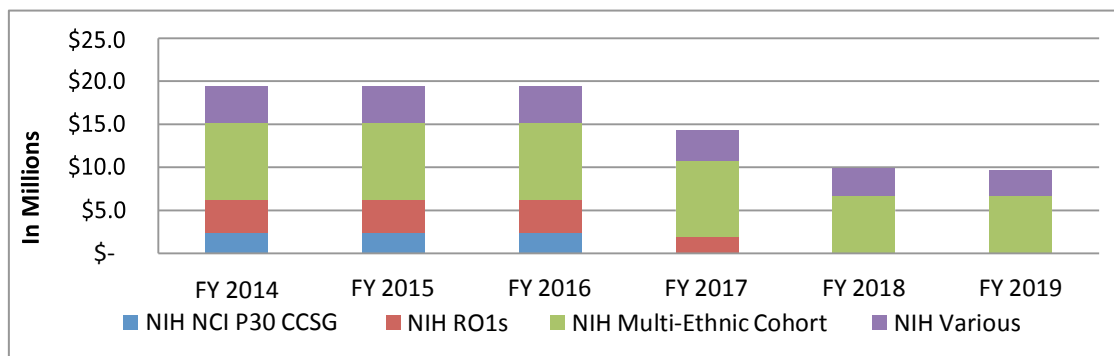


## Two Alternative Options w/o an NCI Center Designation

The business and financial plans presented in the previous section list the additional financial requirements the Center needs to succeed in their upcoming NCI designation competitive renewal. If these additional monies (whether UHCC Consortium funds, philanthropy, University funds or a combination thereof) are not available to allow the Center to recruit the new hires and run its research operations, the Center will lose its NCI designation.

The loss of NCI designation will likely incur over a three-year timeframe. The loss will result in a state workforce reduction of key faculty who bring in millions of new federal funding into the state, lack of funding staff reductions and operation expenditure decreases—all leaving vacant space in the new Center research building. See Appendix 3 for additional devastating losses to the state that will occur if the Center loses its NCI designation.

**Figure 6 – Center's Decline in Federal Grants without an NCI Designation after FY2016**



Two financial forecasts have been developed to demonstrate the financial effects of losing the NCI designation. One pro forma anticipates the state will continue to forward cigarette dollars as currently done (to support the Center's ASK unit costs plus debt service) and a second scenario outlines the impact of a greater loss that would come from the cigarette tax only funding the Center's research building debt service (i.e., no infrastructure and core operations support). These detailed financial forecasts are shown in Figures 7 through 10 on the following pages. To compare and contrast the financial resource needed on the Kaka'ako Campus consolidated financial plan, Table 1 provides a summary of the business plan request in the previous section to those of the two alternative Center options after the loss of the NCI designation.

**Table 1 – Kaka'ako Campus Funding Necessary with or without NCI Designation**

Fiscal Year	Business Plan Option: Kaka'ako Campus Consolidated Financial <b>with NCI designation</b> (see figure 3)	Alternative Center Option 1: Kaka'ako Campus Consolidated Financial <b>without NCI designation</b> and retaining all Cigarette tax revenue (see figure 7)	Alternative Center Option 2: Kaka'ako Campus Consolidated Financial <b>without NCI designation</b> and retaining only Cigarette tax revenue for debt service (see figure 9)
2015	\$8,654,995	\$8,654,995	\$8,654,995
2016	\$13,119,377	\$9,422,445	\$15,721,268
2017	\$13,014,253	\$6,612,750	\$11,779,333
2018	\$13,576,542	\$6,311,584	\$10,972,589
2019	\$13,440,830	\$5,982,295	\$10,643,000

**Alternative option 1** is detailed in Figure 7's financial forecast, and assumes the following:

- Reduced RTRF generation in FY2018 due to loss of federal grants
- Anticipated personnel decline of 30-50% by FY2018. A loss of more than 100 to 150 jobs due to layoffs and attrition.
- Reduced research operations and overall ASK expenditures.
- Removed new faculty recruitments and the recruitment of a new Center director.
- Removal of Hawai'i Cancer Consortium funding requires the Center to pay faculty commitments including startup packages.
- Cigarette tax revenues appropriated is set at breakeven to only cover ASK expenditures.

**Figure 7 – Alternative Option 1: Kaka'ako Campus Consolidation Financial Forecast without NCI Designation**

	Kaka'ako Campus Consolidation				
	Projected	Forecasted			
Mission Based Operations	FY2015	FY2016	FY2017	FY2018	FY2019
Appropriated Funds					
State General Fund Appropriations	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376
Tuition, Fees & Outreach Appropriations	8,759,311	5,963,658	6,348,896	6,399,744	6,137,187
MD Tuition Differential Allocation	6,076,658	6,076,657	6,198,190	6,508,100	6,638,262
Revolving Funds - Admission Fees	198,444	200,000	200,000	200,000	200,000
Revolving Funds - RTRF Allocation	2,910,912	2,404,181	2,109,303	1,876,349	1,876,349
Physician Workforce & Community Services	515,640	25,000	515,640	25,000	515,640
Total Appropriations Funding	34,541,341	30,749,871	31,452,405	31,089,569	31,447,814
Expenditures					
Personnel Costs - Faculty	32,419,232	30,573,724	29,115,772	27,963,989	27,963,989
Personnel Costs - Graduate Assistants	586,539	516,901	516,901	516,901	516,901
Personnel Costs - Former Director	260,000	-	-	-	-
Personnel Costs - Academic & Research Support Staff	3,599,220	3,448,910	3,330,166	3,236,358	3,236,358
Prior UHCC Start-up Pkgs; now UH cost w/o Hospital Support	-	-	-	1,000,000	1,000,000
Materials, Supplies, Equipment, Travel, Other	6,331,344	5,632,781	5,102,316	4,683,905	4,712,861
Total Mission Based Operations Expenditures	43,196,336	40,172,316	38,065,155	37,401,153	37,430,109
Total UH Required Loss Coverage without NCI Designation	(8,654,995)	\$ (9,422,445)	\$ (6,612,750)	\$ (6,311,584)	\$ (5,982,295)
	\$				
Administrative Services Kaka'ako (ASK) Campus Operations:					
Appropriations					
General Fund Appropriations	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952
Tuition & Fees Special Fund Appropriations	4,160,931	6,956,585	6,449,814	6,089,056	6,221,452
RTRF Allocation & Facilities Revolving Funds	6,609,086	3,648,162	3,684,644	3,721,490	3,758,705
Tobacco Settlement Special Funds	12,600,000	9,864,700	10,037,900	10,052,088	10,052,088
Cigarette Tax Special Funds (break even funding)	14,740,731	14,018,835	12,888,695	12,380,218	12,380,218
Total Appropriations Funding	40,603,700	36,981,234	35,554,005	34,735,803	34,905,414
Expenditures					
Personnel - HR, Fiscal, Contracts, Communication Staff	4,248,107	3,752,004	3,360,083	3,050,465	3,050,465
Personnel - Facilities Management & Informations Staff	3,432,444	3,118,456	2,870,406	2,674,446	2,674,446
Infrastructure - Utilities, Telephone, Rentals, Repairs, Leases, Other	12,680,562	10,250,562	9,258,295	8,904,079	9,042,779
Shared Campus - Vivarium, HCDA, Security, Trash, Water	2,485,525	2,275,500	2,305,210	2,335,514	2,366,424
Debt Service & Bond Costs	17,757,062	17,584,712	17,760,012	17,771,300	17,771,300
Total Expenditures	40,603,700	36,981,234	35,554,005	34,735,803	34,905,414
Net Profit (Loss) from Kaka'ako Campus Operations	\$ -	\$ -	\$ -	\$ -	\$ -

The Center's financial forecast (Figure 8) uses the same parameters as detailed in Figure 7.

**Figure 8 – Alternative Option 1: Center's Financial Forecast Without NCI Designation**

Mission Based Operations	Cancer Center				
	Projected	Forecasted			
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Appropriated Funds</b>					
State General Fund Appropriations	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945
Tuition, Fees & Outreach Appropriations	703,751	703,751	703,751	703,751	703,751
Revolving Funds - RTRF Allocation	1,777,444	1,404,181	1,109,303	876,349	876,349
<b>Total Appropriations Funding</b>	<b>4,691,140</b>	<b>4,317,877</b>	<b>4,022,999</b>	<b>3,790,045</b>	<b>3,790,045</b>
<b>Expenditures</b>					
Personnel Costs - Faculty	8,788,136	6,942,627	5,484,676	4,332,894	4,332,894
Personnel Costs - Graduate Assistants	163,238	93,600	93,600	93,600	93,600
Personnel Costs - Former Director	260,000	-	-	-	-
Personnel Costs - Academic & Research Support Staff	715,760	565,450	446,706	352,898	352,898
Prior UHCC Start-up Pkgs; now UH cost w/o Hospital Support	-	-	-	1,000,000	1,000,000
Materials, Supplies, Equipment, Travel, Other	3,492,815	2,794,252	2,235,402	1,788,321	1,788,321
<b>Total Mission Based Operations Expenditures</b>	<b>13,419,949</b>	<b>10,395,930</b>	<b>8,260,383</b>	<b>7,567,713</b>	<b>7,567,713</b>
<b>Cancer Center Net Profit (Loss) from Mission Operations</b>	<b>(8,728,809)</b>	<b>(6,078,053)</b>	<b>(4,237,384)</b>	<b>(3,777,667)</b>	<b>(3,777,667)</b>
<b>Administrative Services Kaka'ako (ASK) Campus Operations:</b>					
<b>Appropriations</b>					
RTRF Allocation & Facilities Revolving Funds	1,231,295	-	-	-	-
Cigarette Tax Special Funds (breakeven funding)	14,740,731	14,018,835	12,888,695	12,380,218	12,380,218
<b>Total Appropriations Funding</b>	<b>15,972,026</b>	<b>14,018,835</b>	<b>12,888,695</b>	<b>12,380,218</b>	<b>12,380,218</b>
<b>Expenditures</b>					
Personnel - HR, Fiscal, Contracts, Communication Staff	2,362,396	1,866,293	1,474,371	1,164,753	1,164,753
Personnel - Facilities Management & Information Staff	1,495,181	1,181,193	933,142	737,183	737,183
Infrastructure - Utilities, Telephone, Rentals, Repairs, Leases, Other	3,391,337	2,461,337	1,969,070	1,969,070	1,969,070
Shared Campus - Vivarium, HCDA, Security, Trash, Water	1,000,000	790,000	790,000	790,000	790,000
Debt Service & Bond Costs	7,723,112	7,720,012	7,722,112	7,719,212	7,719,212
<b>Total Expenditures</b>	<b>15,972,026</b>	<b>14,018,835</b>	<b>12,888,695</b>	<b>12,380,218</b>	<b>12,380,218</b>
<b>Cancer Center Net Profit (Loss) from Campus Operation \$</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Alternative option 2** is detailed in Figure 9's financial forecast and assumes the following:

- Reduced RTRF generation in FY2018 due to loss of federal grants
- Anticipated personnel decline of 30-50% by FY2018. A loss of more than 100 to 150 jobs due to layoffs and attrition.
- Removed new faculty recruitments and recruitment of a new Center director.
- Removal of Cancer Consortium funding for faculty recruits from FY2013 forward.
- Cigarette tax revenues appropriated break even funding to cover the Center's research building debt service only.

**Figure 9 – Alternative Option 2: Kaka'ako Campus Consolidation Financial Forecast without NCI Designation and Cigarette Tax Revenue for Building Debt Service Coverage Only**

	Kaka'ako Campus Consolidation				
	Projected	Forecasted			
	FY2015	FY2016	FY2017	FY2018	FY2019
Mission Based Operations					
Appropriated Funds					
State General Fund Appropriations	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376	\$ 16,080,376
Tuition, Fees & Outreach Appropriations	8,759,311	5,963,658	6,348,896	6,399,744	6,137,187
MD Tuition Differential Allocation	6,076,658	6,076,657	6,198,190	6,508,100	6,638,262
Revolving Funds - Admission Fees	198,444	200,000	200,000	200,000	200,000
Revolving Funds - RTRF Allocation	2,910,912	2,404,181	2,109,303	1,876,349	1,876,349
Physician Workforce & Community Services	515,640	25,000	515,640	25,000	515,640
Total Appropriations Funding	34,541,341	30,749,871	31,452,405	31,089,569	31,447,814
Expenditures					
Personnel Costs - Faculty	32,419,232	30,573,724	29,115,772	27,963,989	27,963,989
Personnel Costs - Graduate Assistants	586,539	516,901	516,901	516,901	516,901
Personnel Costs -Former Director	260,000	-	-	-	-
Personnel Costs - Academic & Research Support Staff	3,599,220	3,448,910	3,330,166	3,236,358	3,236,358
Prior UHCC Start-up Pkgs; now UH cost w/o Hospital Support	-	-	-	1,000,000	1,000,000
Materials, Supplies, Equipment, Travel, Other	6,331,344	5,632,781	5,102,316	4,683,905	4,712,861
Total Mission Based Operations Expenditures	43,196,336	40,172,316	38,065,155	37,401,153	37,430,109
Net Profit (Loss) from Mission Operations	(8,654,995)	(9,422,445)	(6,612,750)	(6,311,584)	(5,982,295)
	\$				
Administrative Services Kaka'ako (ASK) Campus Operations:					
Appropriations					
General Fund Appropriations	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952	\$ 2,492,952
Tuition & Fees Special Fund Appropriations	4,160,931	6,956,585	6,449,814	6,089,056	6,221,452
RTRF Allocation & Facilities Revolving Funds	6,609,086	3,648,162	3,684,644	3,721,490	3,758,705
Tobacco Settlement Special Funds	12,600,000	9,864,700	10,037,900	10,052,088	10,052,088
Cigarette Tax Special Funds (Estimated annual 2% decline)	14,740,731	7,720,012	7,722,112	7,719,212	7,719,212
Total Appropriations Funding	40,603,700	30,682,411	30,387,421	30,074,798	30,244,408
Expenditures					
Personnel - HR, Fiscal, Contracts, Communication Staff	4,248,107	3,752,004	3,360,083	3,050,465	3,050,465
Personnel - Facilities Management & Informations Staff	3,432,444	3,118,456	2,870,406	2,674,446	2,674,446
Infrastructure -Utilities, Telephone, Rentals, Repairs, Leases, Other	12,680,562	10,250,562	9,258,295	8,904,079	9,042,779
Shared Campus-Vivarium, HCDA, Security, Trash, Water	2,485,525	2,275,500	2,305,210	2,335,514	2,366,424
Debt Service & Bond Costs	17,757,062	17,584,712	17,760,012	17,771,300	17,771,300
Total Expenditures	40,603,700	36,981,234	35,554,005	34,735,803	34,905,414
Net Profit (Loss) from Kaka'ako Campus Operations	\$ -	(6,298,823)	(5,166,583)	(4,661,006)	(4,661,006)
Total UH Required Loss Coverage due without NCI Designation	(8,654,995)	(15,721,268)	(11,779,333)	(10,972,589)	(10,643,300)

The Center's financial forecast using the same parameters (Figure 10) uses the same parameters as Figure 9.

**Figure 10 – Center's Financial Forecast without NCI Designation and Cigarette Tax for Building Debt Service Coverage Only**

	Cancer Center				
	Projected	Forecasted			
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Mission Based Operations</b>					
<i>Appropriated Funds</i>					
State General Fund Appropriations	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945	\$ 2,209,945
Tuition, Fees & Outreach Appropriations	703,751	703,751	703,751	703,751	703,751
Revolving Funds - RTRF Allocation	1,777,444	1,404,181	1,109,303	876,349	876,349
<b>Total Appropriations Funding</b>	<b>4,691,140</b>	<b>4,317,877</b>	<b>4,022,999</b>	<b>3,790,045</b>	<b>3,790,045</b>
<i>Expenditures</i>					
Personnel Costs - Faculty	8,788,136	6,942,627	5,484,676	4,332,894	4,332,894
Personnel Costs - Graduate Assistants	163,238	93,600	93,600	93,600	93,600
Personnel Costs -Former Director	260,000	-	-	-	-
Personnel Costs - Academic & Research Support Staff	715,760	565,450	446,706	352,898	352,898
Prior UHCC Start-up Pkgs; now UH cost w/o Hospital Support	-	-	-	1,000,000	1,000,000
Materials, Supplies, Equipment, Travel, Other	3,492,815	2,794,252	2,235,402	1,788,321	1,788,321
<b>Total Mission Based Operations Expenditures</b>	<b>13,419,949</b>	<b>10,395,930</b>	<b>8,260,383</b>	<b>7,567,713</b>	<b>7,567,713</b>
<b>Cancer Center Net Profit (Loss) w/o NCI designation</b>	<b>(8,728,809)</b>	<b>(6,078,053)</b>	<b>(4,237,384)</b>	<b>(3,777,667)</b>	<b>(3,777,667)</b>
<b>Administrative Services Kaka'ako (ASK) Campus Operations:</b>					
<i>Appropriations</i>					
RTRF Allocation & Facilities Revolving Funds	1,231,295	-	-	-	-
Cigarette Tax Special Funds (Estimated annual 2% decline)	14,740,731	7,720,012	7,722,112	7,719,212	7,719,212
<b>Total Appropriations Funding</b>	<b>15,972,026</b>	<b>7,720,012</b>	<b>7,722,112</b>	<b>7,719,212</b>	<b>7,719,212</b>
<i>Expenditures</i>					
Personnel - HR, Fiscal, Contracts, Communication Staff	2,362,396	1,866,293	1,474,371	1,164,753	1,164,753
Personnel - Facilities Management & Informations Staff	1,495,181	1,181,193	933,142	737,183	737,183
Infrastructure -Utilities, Telephone, Rentals, Repairs, Leases, Other	3,391,337	2,461,337	1,969,070	1,969,070	1,969,070
Shared Campus-Vivarium, HCDA, Security, Trash, Water	1,000,000	790,000	790,000	790,000	790,000
Debt Service & Bond Costs	7,723,112	7,720,012	7,722,112	7,719,212	7,719,212
<b>Total Expenditures</b>	<b>15,972,026</b>	<b>14,018,835</b>	<b>12,888,695</b>	<b>12,380,218</b>	<b>12,380,218</b>
<b>Cancer Center Net Profit (Loss) from Campus Operations</b>	<b>\$ 0</b>	<b>(6,298,823)</b>	<b>(5,166,583)</b>	<b>(4,661,006)</b>	<b>(4,661,006)</b>
<b>Total Cancer Center Loss due without NCI Designation</b>	<b>\$ (8,728,809)</b>	<b>\$ (12,376,876)</b>	<b>\$ (9,403,968)</b>	<b>\$ (8,438,673)</b>	<b>\$ (8,438,673)</b>

## What's Next?

Investigation of new opportunities to secure additional resources is underway. Finding the most cost-effective measure to satisfy the mission-based operations of the School and Center and retaining the administrative services at Kaka'ako campus cost coverage is paramount. These additional opportunities may include investigating:

1. Private-public partnerships, focusing on health education and research collaborations, to include selling a portion of the Center's research building, or a sale with a favorable leaseback option (see Appendix 1 for summarized possible scenarios).
  - a. Complicating factors.
    - i. Can the revenue bonds be retired before the 10 year holding period?
    - ii. If yes, can the cost of defeasance (a minimum of \$12M) be covered by sales proceeds of the building?
    - iii. Could the sale of this building to a private entity trigger unrelated business income taxation for the University or affect its long-term land lease with the Hawai'i Community Development Authority (HCDA)?
2. Working with key Hawai'i state legislators on refinancing the Center's research building revenue bonds with the goal of refinancing this debt using state general obligation bonds. This mechanism is used to fund the majority of the University's 11 campus buildings.
  - a. Complicating factors.
    - i. Is the state willing to issue up to \$135 to \$150M in general obligation bonds to refinance the \$123M outstanding revenue bond debt?
    - ii. What tax implications, if any, would this refinance activity have on the present tax-exempt revenue bond issuance?
    - iii. Would the legislature allow the continuance of the cigarette tax dollars to remain with the Center to fund mission-based research and campus operation costs?
3. Working with UH leadership and key Hawai'i state legislators on other options to increase the state general fund support for the Center's research operations.
  - a. Receiving state general funds equivalent to other UHM organized research units that are similar in faculty and staff size composition, research revenue generation and external facilities requirements.
  - b. The following table provides a comparator between another UHM Organized Research Unit (ORU) of similar size to the Center. This ORU's unique contribution to Hawai'i's workforce and economic impact is similar to that of the Center. As shown in the table 2, the net revenue generation by the Center is very favorable for a comparable sized research unit, but the cost of facilities and other infrastructure (that have been allocated to the Center rather than paid centrally by UHM), makes a profound difference in the financial proforma for each unit.

**Table 2 – ORU Comparison Chart**

<b>Fiscal Year 2014</b>	<b>Cancer Center</b>	<b>UHM ORU Comparator</b>
Organization Chart Permanent FTE Counts	50 FTE (38 Faculty / 12 Staff)	52.75 FTE ( 41 Faculty /11.75 Staff)
Revenue: Gifts & Trust Funds	\$2,627,499	\$2,221,090
Revenue: Grants, Contracts, Sales & Services <b>DIRECTS</b>	\$15,656,143	\$22,628,855
Revenue: Grants, Contracts, Sales & Services <b>INDIRECTS</b>	\$3,813,486	\$3,205,140
State Funds Allocation	(\$2,154,262)	(\$8,530,399)
Cigarette Tax Special Funds (\$15.8M less Center's \$7.9M building debt service & \$5.4M operations)	(\$2,494,723)	\$0
<b>Revenue minus state &amp; university allocations</b>	<b>\$17,448,144</b>	<b>\$19,524,686</b>

## Conclusion

Direct investment of G-funds to enhance the Kaka'ako Campus proforma as presented may be the most cost-effective option for UH and the state to maintain NCI designation and the larger community service and economic benefits of the Kaka'ako Campus.

Alternate scenarios 1 and 2 (associated with loss of NCI Cancer Center Designation) may economically cost UH and/or the state more than the \$13.6M support being requested in this business plan to ensure the School's and the Center's mission-based operations continue to be sustained, especially if additional funded investigators transfer their grants to other institutions rather than remaining at an institution with diminished recognition in the Cancer and larger health science disciplines. Further, additional legal fees and other administrative costs will likely be associated with either a new bond issuance or the sale and/or lease of the Center's building.

The financial forecasts in this business plan proposal are incomplete as a sustainable business plan given that the plan emphasizes a need to address the previously identified annual \$13.6M puka in the Campus units' mission-based education and research operations. It is imperative upon the Campus and UH leadership to work with the state legislature, teaching hospitals and local industry to close this remaining mission based operations gap before fiscal year 2017. The sooner it can be addressed, the healthier the business plan will be, going forward to address other fiscal challenges. **Further, reductions in support to either the School or the Center during the 2015 legislative session will only aggravate the fiscal challenge faced by the state and UH.**



## Appendix 1 – Center Building Deposition Opportunities

The following letter has been redacted for confidentiality purposes.

Ms. Nancy Foster  
Chief Financial Officer  
John A. Burns School of Medicine (JABSOM)  
651 Ilalo Street, MEB 4<sup>th</sup> Floor  
Honolulu, HI 96813

RE: University of Hawaii Cancer Center – Disposition Options

Dear Ms.Foster,

Thank you for providing us with an opportunity to evaluate the University of Hawaii's ("UH") potential disposition alternatives for its Cancer Center Building (the "Property") located in Kakaako. SC understands that if UH elected to sell the entire Property it would be in concert with UH's signing of a long-term lease agreement for Buildings A and B in what is commonly referred to as a "sale-leaseback".

Pursuant to our review of the Property's ground lease, we have identified a few important conditions which would impact a sale of all, or a portion of, the Property:

- Lease Term: With 44 years remaining on the lease term, the Property will be considered comparable to a fee simple property by most investors despite its leasehold status. While a shorter lease term (30 years or less) would warrant a significant discount off the purchase price, there may still be a slight discount imputed into the purchase price by institutional investors analyzing a purchase of Buildings A and B as discussed in Scenario #3 below.
- Rent: The current ground rent of \$1.00 per year is negligible, and provided it does not adjust to fair market value as outlined in the following bullet point, the current rent should have no influence on the sales price of the Property. However, if the rent does adjust to fair market value, the impact on the sales price for the Property would be extremely detrimental.
- Use: The ground rent would be adjusted to 6% of the fair market value of the leasable space if the space is used for any purpose other than 1) educational and research purposes, 2) auxiliary and ancillary uses that support educational and research uses, and 3) vacant space, common areas, on-site parking, and open space. If triggered, this condition would significantly alter prospects for the sale of the property in that, were the rent to adjust to 6% of the fair market value of the leasable space, it would no longer be financially viable to own the Property given the combined mortgage loan and ground rent costs. Therefore, buyers for the Property will be limited to a qualified group of investors or owner-users whose investment or operating plans will be able to comply with the use requirements listed above.

SC believes there are three primary disposition scenarios for the Property:

1. **Condominium Sales:** Convert each floor of the annex portion of the Property (the "Annex") to individual condominium units and sell the floors to investors or owner-users whose uses comply with the ground lease stipulations and would be complementary to the Cancer Center and JABSOM missions and environment. This would be advantageous because the smaller sizes of the individual floors would be more marketable than the entire Annex building, as the lower price points of individual units (floors) would draw a larger pool of buyers. Moreover, a buyer interested in purchasing the entire Annex building could still do so, even if the individual floors are condominiumized. We believe that an overall **sales price of \$14.4 to \$17.6 million** (\$450 to \$550 per sq. ft.) could be achieved in this scenario.
2. **Annex Building Sale:** Sell the entire Annex building consisting of approximately 32,128 sq. ft. of leasable area. Similar to Scenario #1, the buyer would need to have a use which complies with the ground lease stipulations and works in concert with the Cancer Center and JABSOM. We believe a **sales price of \$12.8 to \$16.0 million** (\$400 to \$500 per sq. ft.) could be achieved for a disposition of the Annex to a single buyer. Due to its larger undivided size, it is expected that a sales price would be on the lower end of this range.
3. **Sale Leaseback:** Sell the entire Property consisting of approximately 159,601 sq. ft. of leasable area (excluding building core areas such as elevator and unusable shafts, fire stairwells, and mechanical penthouses) and simultaneously enter into long-term lease agreement for Buildings A and B consisting of 127,473 sq. ft. of leasable area. SC would recommend marketing the Annex separately from Buildings A and B since the long-term lease would appeal to institutional investors looking for a stable cash flow and the Annex would be better positioned for an owner-user acquisition. This would best be accomplished by converting the Property to a condominium property regime (CPR).

Under such a scenario, we expect that the sales price for the Annex would be the same as in Scenario #2; however, the sales price for Buildings A and B would depend on the annual base rent that UH is prepared to pay. Limited investment opportunities in this size range, a very strong credit tenant (UH), and favorable lending conditions are supportive of a capitalization rate of 5.5% to 6.0% on the net operating income for the first year following a buyer's purchase of Buildings A and B. Were the Property a fee simple asset, we anticipate it would sell for a cap rate in the 4.5% to 5.0% range based on recent comparable sales.

To establish a basis for comparison, SC explored several prospective lease rent structures and the projected sales price associated with each:

- a. \$2.50 per sq. ft. per month:  
 Starting annual Base Rent of approximately \$3.8 million  
 Projected **sales price of \$63.7 to \$69.0 million** for Buildings A & B  
 Total projected sales price including Annex: **\$76.7 to \$82.1 million**

- b. \$3.50 per sq. ft. per month:  
Starting annual Base Rent of approximately \$5.3 million  
Projected sales price of **\$88.3 to \$96.3 million** for Buildings A & B  
Total projected sales price including Annex: **\$101.3 to \$109.3 million**
  
- c. \$4.00 per sq. ft. per month:  
Starting annual Base Rent of approximately \$6.1 million  
Projected sales price of **\$101.9 to \$110.9 million** for Buildings A & B  
Total projected sales price including Annex: **\$114.7 to \$123.9 million**

These foregoing general estimates are based on the limited information SC has been provided thus far. Additional information would be necessary in order to underwrite the Property in extensive depth and detail, to include a thorough analysis of other relevant factors such as parking and physical facility components, to confirm the accuracy of the projected sales prices. The real estate investment market in Hawaii is very favorable to sellers at this time, and we believe an offering of part or all of the Property would receive significant interest from qualified buyers.

We look forward to an opportunity to assist the University of Hawaii in its evaluation of its real estate needs.

Best regards,

XX, LLC  
Managing Partner

## Appendix 2 – Bringing Unique Value to Hawai‘i

The items contained in this appendix represents just a sampling of the unique offerings the School and the Center provide to the state of Hawai‘i.

### **John A. Burns School of Medicine's Value**

#### **Educating Hawai‘i's Next Generation of Health Providers**

A physician is often the first person a new keiki will encounter upon birth and perhaps one of the last persons who may visit a kupuna before their life's journey passes. The medical school has a statewide medical doctorate (MD) program that includes clinical educational opportunities in the smaller communities of:

- Hilo, Kona and North Kohala on Hawai‘i Island
- Kahului, Wailuku, Kihei, Lahaina and Kula on Maui
- Kapa‘a, Līhu‘e, ‘Ele‘ele, Kīlauea and Waimea on Kaua‘i

These experiences help keep local practitioner faculty members current with medical knowledge and provide a strong pipeline for future practice in these communities. In addition to offering MD degrees, the medical school offers the following degrees and certificates:

- ‘Imi Ho‘ōla post-baccalaureate certificate
  - Pre-medicine program with direct enrollment into the MD program upon successful completion for students from under-represented and/or disadvantaged communities.
- Doctor of Medicine Early Acceptance Program
  - Pathway from Hawai‘i's high schools to medical school mentoring and scholarship at UHM.
- Graduate medical education physician (MD) resident and fellowship training programs, which includes: internal medicine, surgery, family medicine, geriatric medicine psychiatry, child and adolescent psychiatry, obstetrics and gynecology, pediatrics, pathology, orthopedic surgery, cardiovascular medicine and transitional year residency.
- Master of science (MS) and doctor of philosophy (PhD) degrees in biomedical sciences (clinical and translational research), cell and molecular biology, tropical medicine, and developmental and reproductive biology.
- Master of science (MS) in communication sciences and disorders (as known as speech pathology), bachelor of science (BS) medical technology and post-baccalaureate certificate programs to prepare for professional licensure. Without these programs that are only offered by UH via the School, Hawai‘i would need to look to the mainland for these highly desired professionals working in our school systems and community hospitals.
- Incorporating and improving the global/international perspectives/issues to the practice of medicine, especially for medical students matriculating, the School has 27 memorandums of understanding (MOU) with medical schools and programs in Asia and the Pacific. These MOUs provide degree elective opportunities for the School's medical students and the Asia/Pacific medical students as an exchange program that reciprocate U.S. and international medical education among 7 Asian and South Pacific countries.

### The School's Research at Kaka'ako

The School's research focus is on diseases that affect individuals in Hawai'i, e.g. cardiovascular disease, stroke, diabetes. These are diseases that are health disparities since certain ethnic groups are affected more than others. We are doing bench-to-bedside research with patients and animal models to understand how these diseases develop, learn how identify and prevent them. Using Department of Health and Human Service grants from the National Institutes of Health to address health disparities, the School has the following research centers, institutes and infrastructure grants that generate millions of new federal dollars coming into the state:

- Native and Pacific Health Disparities Research ([http://www2.jabsom.hawaii.edu/native/au\\_mau\\_profile.htm](http://www2.jabsom.hawaii.edu/native/au_mau_profile.htm)),
- Hawai'i Center for AIDS (<http://www.hawaii.edu/hacrp/home2.htm>),
- Cardiovascular Research (<https://sites.google.com/site/ccrheart/>),
- Pacific Center for Emerging Infectious Diseases (<http://pceidr.jabsom.hawaii.edu>)  
Institute for Biogenesis Research (<http://www.ibr.hawaii.edu>). RMATRIX infrastructure grant (<http://rmatrix.jabsom.hawaii.edu>) BRIDGES infrastructure grant (<http://rcmibridges.jabsom.hawaii.edu/RCMI%20BRIDGES%20index.html>).

Some of the biomedical research advances made by Kaka'ako physician scientists recently include:

- The University of Hawai'i Center of the Diabetes Prevention Program Outcomes Study (DPPOS) has 55 participants who have been in a ten year trial. Results, reported in the prestigious British medical journal *The Lancet*, show lifestyle changes can reduce the rate of diabetes. This work was conducted by Drs. Richard Arakaki and Marjorie Mau.
- For the first time ever, Dr. Todd Seto and Mele Look have determined the metabolic equivalent for hula in a study which shows the Native Hawaiian dance form can be an effective and engaging cardiac rehabilitation therapy. While hula is known worldwide and deeply connected to Hawai'i's identity, Look said, "*the HELA Study represents the first time that hula has been scientifically evaluated as part of a health program.*" Heart disease is of particular concern for Native Hawaiians where heart disease death rates are almost twice other ethnic groups. This study was published in *Prog Community Health Partnerships*.
- Asians, Native Hawaiians and Pacific Islanders and Caucasians with ischemic stroke have substantially different cardiovascular risk factors. Compared with Asians, Native Hawaiians and Pacific Islanders were less likely to be older and more likely to have diabetes, previous stroke and be obese. Targeted secondary prevention will be important in reducing disparities among these racial groups. This study was published in *Neurology* by Dr. Kazuma Nakagawa.

Pacific Basin Rehabilitation Research and Training Center (PBRRTC) is in its 31<sup>st</sup> year of working with and assisting individuals with disabilities here in Hawai'i. In association with the Hawai'i Department of Health and Hawai'i's medical community, PBRRTC:

- Educates of the residents of Hawai'i on prevention and care of neurotrauma injuries (traumatic brain injury, stroke, spinal cord injury).
- Encourages community members with disabilities to advocate for themselves and express their needs; provides mentoring.
- Provides college and university students with a learning experience that offers a range of opportunities, including all aspects of the research process, grant writing, interviewing skills, public education, community development, advocacy and more.

- Provides members of the community (with and without disabilities) opportunities to contribute through volunteer work.
- Employs several staff members with disabilities and nearly all volunteers have disabilities.

### **University of Hawai'i Cancer Center Value**

In service to this mission the Center faculty and physicians work together with the local hospitals to ensure:

- That we know the behaviors that are exposing the people here in Hawai'i to cancer risk;
- That we educate the people of Hawai'i about the latest breakthroughs in cancer research and lifestyle changes that help prevent cancer;
- That we dedicate our special talents and natural resources to developing new drugs and therapies to cure cancer and,
- That we bring the most effective cutting edge therapies to the islands in the form of clinical trials.

The UH Cancer Center has more than 20 years of accomplishments in its mission to end cancer and to serve the people of Hawai'i. Highlights of just a few of these successes follow with an emphasis on the most recent. None of these accomplishments would have occurred without the Center, and the people of the Hawai'i would be have missed these lifesaving benefits.

#### **Clinical Trials: providing leading edge cancer care for the people of Hawai'i**

The UH Cancer Center is the core of the Hawai'i Cancer Consortium and coordinates with the hospitals to provide the infrastructure for cancer clinical trials and cancer treatment services. The oncologists and surgeons in our Clinical Program work in the local Consortium hospitals and are bringing new clinical trials to the islands and developing new therapies with our researchers:

- The UH Cancer Center, working with Hawai'i hospitals and physicians, gave Hawai'i's adult and pediatric cancer patients access to around 100 different national clinical trials of new treatments and technologies.
- This means that Hawai'i's cancer patients did not have to leave the islands to access the best care and had the earliest opportunity to receive life-saving treatment breakthroughs.

In so doing, the Center substantially contributed to keeping Hawai'i's cancer care providers, who offer clinical trials for their patients, at the cutting edge. Clinical trials guarantee that patients receive the national standard of best care and have the opportunity to benefit from treatment innovations.

#### **Educating Hawai'i's Physicians: bringing Hawai'i the latest cancer breakthroughs**

The UH Cancer Center, working with Hawai'i hospitals and physicians, brings in the top cancer researchers from around the world to talk about their latest research and work with the Center's faculty and physicians. This has included several Nobel laureates in medicine.

Many of the research symposia that the UH Cancer Center hosts throughout the year offer continuing medical education credentials to physicians to keep them current on the latest in medical practice and help them maintain their medical licenses.

Hawai'i physicians caring for cancer patients have access to cutting edge cancer knowledge via the local tumor boards. UH Cancer Center physicians assist local doctors and make recommendations on patient treatment, especially for the most difficult cases. Thus, the

Center researchers help to improve the care of cancer patients in Hawai'i, but this critical service usually remains invisible to patients and the public.

### **Research: improving cancer care, prevention and survivorship**

Hawai'i has one of the most diverse populations in the world, and because of this it is especially suited to research into why some ethnic populations are more susceptible to certain cancers than others and how genetic susceptibility interacts with environmental factors in producing cancer risk.

The Center has organized focused research groups around the specific cancers that affect us most. For example, Hawai'i has one of the highest rates of liver cancer in the United States. The Center has organized a highly accomplished team of top surgeons, oncologists, basic cancer biologists and population scientists to focus efforts on finding new diagnostics and therapies to improve prospects for our liver cancer patients. Similar teams are at work on women's cancers (breast and ovarian), and urogenital cancers (prostate and bladder) with new ones forming to focus on melanoma and colon cancers.

One of the fundamental contributions of the Center to cancer research internationally has been the creation of the multiethnic cohort. This started in the 1990s and consists of a group of patients in Hawai'i of various ethnicities that the Center has followed for more than 20 years, keeping track of the foods they eat and other lifestyle choices they make, and whether they develop health problems such as cancer. This study was so successful it was expanded with the University of Southern California and has become one of the most important such cohorts used by researchers from around the world. It has led to a number of insights in how genetics and nutrition interact to determine cancer risk. For example, the increase in colorectal cancer risk experienced by Japanese immigrants upon migration to Hawai'i is considered a classic example of gene-environment interaction.

UH Cancer Center researchers were among the first to investigate the health effects of electronic cigarette use. Working in Hawai'i's high schools, they recently uncovered a growing public health problem among Hawai'i's youth. They found that rates of e-cigarette use by Hawai'i's adolescents are at least triple the rate of e-cigarette use observed in mainland adolescents. Furthermore, this study suggested that e-cigarette use might be recruiting lower-risk adolescents to smoking. Ongoing research by the Center will provide important insights that will enable us as a community to understand and regulate the use of e-cigarettes and other tobacco products.

The Center is conducting a hula study for breast cancer survivors to assess whether hula can be an effective strategy to increase physical activity after treatment. Studies have shown that physical activity is important for reducing the chance of cancer recurrence.

Colon cancer in Native Hawaiian men is higher than in other ethnic groups. Center researchers are exploring different screening approaches to increase screening rates and studying the biology of early-detected cancers to reduce the high rate of cancer deaths in this population.

### **Research: finding new ways to improve cancer diagnosis and treatment**

Hawai'i is home to many indigenous plants and bacteria in the oceans and the soil and these can make natural chemicals found only here. Center researchers are testing these natural products to identify those that kill cancer cells. Meanwhile, cancer biologists have produced breakthroughs in understanding how cancer forms and spreads. This basic research helps devise new drugs and new therapeutic and diagnostic approaches that contribute to Hawai'i's intellectual property development.

Center researchers assembled a library of more than 2,500 natural products from Hawai'i natural resources for testing against human tumors. Researchers have identified many drug



leads, including two natural product compounds from plants (such as poha berry), one compound from sea sponge and two compounds from microbial sources, which inhibit the growth of human breast, brain or ovarian cancers in experimental models.

Center chemists and biologists have identified three new drug leads for kidney cancer in addition to two drug leads for brain tumors and others for mesothelioma (cancer of the organ lining of the lung), which continue to be actively developed as potential new therapies.

Center biologists have produced breakthroughs in understanding how cancer forms and spreads: such as the identification of mutations in the protein Bap1 that cause a new cancer syndrome that includes mesothelioma; the finding that asbestos causes the release of a cytokine called HMGB1 that kicks starts the process of asbestos mediated carcinogenesis leading to mesothelioma; determination of how a protein called RSK2 drives tumor invasion and metastasis; cutting edge work on how recently discovered molecules called microRNAs contribute to liver cancer progression and new insights into how bladder cancers form based on studies of families that suffer from Fanconi-Anemia.

Promising new diagnostic approaches have been developed at the Center to improve diagnosis of bladder cancer, mesothelioma and liver cancer. Some of these are in clinical trials both here and nationally.

Center researchers in collaboration with collaborators in China have developed some of the most advanced metabolomics analyses and used these recently to develop a panel of metabolic markers to determine the prognosis for patients with the blood cancer acute myeloid leukemia (AML). They are also using metabolomic analysis to develop a new test to detect pancreatic cancer at earlier, and more treatable, stages.

### **Research: bringing the top cancer researchers to Hawai'i**

Cancer Center faculty members who are funded by National Institutes of Health grants are relatively uncommon. A grant now has to be among the top 15% in the United States to be funded. Therefore Cancer Center faculty members are quantitatively among the top cancer researchers in the country. They are accomplished and respected beyond the shores of Hawai'i and enhance recognition of UH as a leading biomedical research institution.

The National Cancer Institute designation is another indication of the quality of the Cancer Center. We share that distinction with 67 world-renowned places such as the MD Anderson Cancer Center in Texas and the Mayo Clinic in Minnesota. Through this designation, the Cancer Center works with other NCI centers and with funds available only to other NCI designated centers to bring the best possible cancer care to the islands.

### **Economic Development: to stimulate job creation and build Hawai'i's future**

Each year, the Cancer Center brings to Hawai'i about \$20 million in grants that support cancer research locally. This money directly supports the economy of Hawai'i by supporting new goods and services, thus bringing in tax revenue for the state and increasing Hawai'i's professional and technical workforce.

The Center assists researchers with technology development and patent activity in order to grow new revenue streams and assist with the development of new companies from this intellectual property. The Center supports the state's Hawai'i Innovation Initiative to develop Hawai'i's technology sector.

Multiple patents have been filed in the last two years from research on various new anti-cancer drug leads including three patents on natural products from Hawai'i. The intellectual property rights to a natural product (cryptophycin), which was discovered by Cancer Center researchers,

has been licensed to a major pharmaceutical company with the goal of developing a new treatment for cancer.

### **Outreach: to give the latest reliable information to help end cancer**

The Cancer Center through its Hawai'i Tumor Registry division assembles the data necessary for Hawai'i cancer statistics, including the next update (currently in progress) of the Hawai'i Cancer Facts and Figures. Cancer Center faculty and staff are working with the state Department of Health and other Hawai'i cancer stakeholders on the next revision of the Hawai'i State Cancer Plan, a strategic initiative to end cancer in our state.

Free Cancer Center public events for Hawai'i's residents deliver cutting edge information on cancer survivorship (from all cancers), as well as specific information on breast cancer and prostate cancer. Many public educational events are held at the Sullivan Conference Facility in the Cancer Center. Cancer Center employees distribute cancer information at health fairs, neighborhood events, senior citizen fairs and other venues. Cancer Center tours are frequently given to groups of students, visitors and senior citizens to better educate them as to the research and opportunities the Cancer Center offers.

### **Educating Hawai'i's Youth: giving students opportunity and training**

Two dozen interns from Hawai'i high schools and colleges, plus Hawaiian students attending college in mainland schools, were trained in cancer research through the Center's summer internship program in just the last two years.

In addition, students from disadvantaged backgrounds receive educational and research opportunities through the Center using public/private grant funding.

The next nearest cancer center is more than 2,000 miles away, so truly no one else comes close to doing the job the Center does. Indeed, no one else can do what the UH Cancer Center does for Hawai'i. The Center faculty and staff members are making a difference every day in the lives of our families and friends in Hawai'i.

### **Advancing the Community's Health at Kaka'ako**

Today, the Kaka'ako Campus offers a Hawaiian healing garden, health fairs, hearing and speech education and screenings, HIV/AIDS research and clinical care, the Hawai'i Home Project for the homeless, cancer prevention outreach and health policy support and support for numerous health and healing focused research programs and discoveries. All this is above and beyond the School and the Center's shared mission to educate Hawai'i's next generation of health providers.

Additionally, the Center hosts the Quest for a Cure: Progress in Cancer Research event every October. This free endeavor includes a number of public events including presentations by leading experts in cancer research. The Center partners with the Department of Health Tobacco Prevention and Education Program to educate residents on the risks of tobacco use and smoking cessation among the young adult population. Moreover, high school and undergraduate students from disadvantaged backgrounds receive educational and research opportunities through the Center using public/private funding.

In the winter and fall of each year, the School offers a Mini-Medical School on Healthy Aging program. The mini-med school program has already educated over 477 participants since the program began in February 2014. Each participant receives a certificate of completion after their six week session. The program provides Hawai'i's kupuna with relevant scientific information on aging, similar to what the School's medical students learn, but tailored for public audiences.

## Appendix 3 – Loss of a NCI-CC Designation

What happens if the University of Hawai'i Cancer Center loses its Cancer Center Support Grant (CCSG) designation from the National Cancer Institute?

- We would cripple the fight against cancer in the islands and hinder the health of our diverse population through loss of research, education and cutting edge patient care.
- More than 6,000 patients every year would face decreased treatment options in Hawai'i, and that loss would especially restrict access to new therapies and treatments for minority and underserved populations.
- Quality of patient care in Hawai'i would significantly suffer. Clinical trials allow Hawai'i cancer patients access to better care and give them the earliest opportunity to receive life-saving treatment in a place where they have the support of their family and friends—which has been shown to improve response and recovery.
- Without access to those clinical trials locally, more than 300 Hawai'i patients a year would need to leave the islands for cancer care.
- When families leave their homes for medical care they incur costs not covered by insurance and they are away from their local support networks of family and friends.
- Hawai'i physicians would be less prepared to know about and implement new treatment breakthroughs. The NCI designation educates physicians by bringing clinical trials that guarantee best care and access to top researchers and cutting edge findings. Losing the NCI designation and the support from the Hawai'i Cancer Consortium members would mean potentially longer lapses between a new breakthrough treatment being developed, and that treatment being available the people of Hawai'i.
- Tens of millions of dollars would be lost. Approximately 80% of the NCI's research funds go to the 68 designated cancer centers.

The UH Cancer Center would lose approximately \$13 million in grants from the federal government (and other sources) on top of \$2 million per year of supplemental funds. Notable grants that would be lost include:

- NCI CCSG itself: \$5.5 million over five years (this is the main support grant for the NCI designation)
- NCORP: \$3.8 million over five years (this grant brings cancer care and clinical trials to minority and underserved populations)
- U54: \$4.2 million over five years (this grant funds a collaboration with the University of Guam to study health disparities among racial and ethnic minorities and economically disadvantaged populations)
- Other: average \$2 million a year in supplemental funds (this is money available only to NCI designated cancer centers through supplements to the CCSG)

Up to \$2 million a year from Hawai'i's hospitals and physicians who participate in the Hawai'i Cancer Consortium would be forfeited. Currently, this money supports clinical trials and gives Hawaii's adult and child cancer patients access to around 100 different national clinical trials of new treatments and technologies in a given year.

An important generator of intellectual property and part of the state's Hawai'i Innovation Initiative would be dealt a costly blow. These losses would reverberate throughout the Hawai'i

economy in the form of job losses and the subsequent reduced spending and potential need for the state to support more unemployed families.

### **How hard would it be to regain the NCI designation?**

It would be extremely difficult to regain the designation once lost. Losing this designation means losing the Hawai'i Cancer Consortium, something the NCI considers vital to the Cancer Center's designation.

- It means losing the infrastructure that supports the research and clinical trials, which would be significantly weakened.
- It means losing access to NCI advisors that provide the review and direction that keeps the Cancer Center competitive at the national level.
- It means losing top researchers to other cancer centers.
- It means losing 20 years of investment in improving the health of the people of Hawai'i.

### **Can the Center partner with another NCI designated cancer center?**

The idea of the UH Cancer Center "working well" as part of another NCI designated cancer center on the mainland has been thoroughly assessed. There are no such other recognized relationships among NCI designated cancer centers.

It is possible that mainland Cancer Centers will seek to establish franchise treatment centers in Hawai'i given the absence of a local cancer center. Although such mainland Cancer Centers could partner with local hospitals to deliver specific treatment protocols, this will be at increased expense to these hospitals and will not improve the finances of the Kaka'ako Campus.

The anticipated reduction in federal cancer funds coming to Hawai'i is far greater than simply losing the grants that are part of the designation. In federal cancer grants, there is a criterion standard to be met based upon the research "environment." As an NCI designated cancer center, all grant proposals from the Center receive maximum points in that category, which helps the investigator obtain a desired score for funding. Another way to look at it is as follows, of all the National Cancer Institute's budget of \$4.8 billion, in any given year, 75% to 85% of this budget goes to grants submitted from NCI designated cancer centers. There are over 1,600 (self-labelled) cancer centers in the country that scramble for the remainder of these grant dollars.

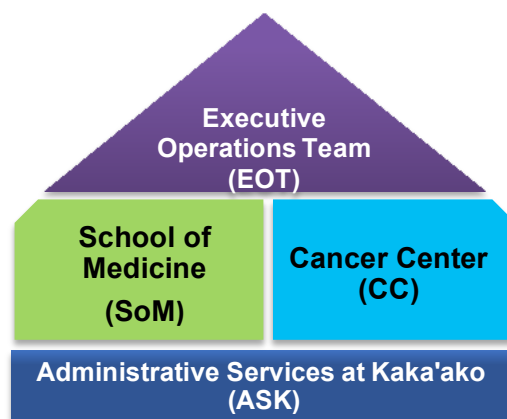
### **Conclusion**

For all these reasons it is much easier and far better for the Center to renew its designation than to lose it and try to regain it later. Only a very few of the cancer centers that apply for NCI designation receive it. Thus, The UH Cancer Center is a special resource for the State of Hawai'i and its people that could be lost irretrievably.

## Appendix 4 – Hale Ola o Kaka‘ako Campus Executive Operations Team Members

### A Unifying Vision

The vision is that of a health science campus with ties across UH, especially to the UHM College of Health Sciences and Social Welfare, that leads the UH outreach to build healthy communities for the state. Following the premises outlined in this campus business plan, the Hale Ola o Kaka‘ako Campus will have a strong financial base built upon a unique UH business plan that incorporates state infrastructure support, public-private partnerships and leverages UH resources to advance the health of Hawai‘i .



### Campus Leadership

The dean of the John A. Burns School of Medicine will serve as the Kaka‘ako executive dean and oversee the campus. The executive dean will oversee a unified campus administrative core for fiscal, operational and facilities management related to the campus and its units. The academic components of the campus will be the Center, the School and other units as subsequently assigned by UH. Jerris R. Hedges, MD, MS, MMM, has been the dean of the John A. Burns School of Medicine for eight years. He holds a masters of medical management from the USC School of Business and is a member of the National Academies of Sciences Institute of Medicine. Dr. Hedges is also a member of the American Association of Medical Colleges–Council of Deans–Administrative Board.

The Center director will report to the School dean for all administrative and academic matters. The Center director will oversee all academic programs on behalf of the Center, manage the assigned Center resources and work with the dean to develop philanthropic, practice management, intellectual property and other resources for the advancement of the Center’s mission.

The Administrative Services at Kaka‘ako (ASK) unit lead executive also serves as the chief financial officer of the John A. Burns School of Medicine reporting directly to the executive dean. As an associate dean of finance and administration for the Kaka‘ako Campus, the core administrative services goal along with campus operations will be to fully serve the School and the Center’s educational and research needs. The School’s CFO, Nancy Keonaonaokaniela Foster who is Native Hawaiian, has served in her position at the School for seven and a half years.

She holds a bachelor of business administration degree in accounting information systems; is a certified public accountant with active licenses in Arizona and Colorado; has more than 24 years working for public medical schools and faculty practice plans in finance and operations and will complete her master of arts graduate degree in organizational leadership in December 2015. She is also an active board member of the American Association of Medical Colleges–Group on Business Affairs–Administrative Board.

The final member that joins the Kaka'ako Executive Operations Team (EOT) is the campus's lead public information officer (PIO), the John A. Burns School of Medicine director of communications, media and government relations. Serving for over eight years, and a graduate of journalism from the University of a Hawai'i at Mānoa (and Kapi'olani Community College), Tina Shelton was an award-winning Hawai'i news reporter and TV news anchorwoman for three decades covering the people of Hawai'i. In 1987, she was honored as a University of Hawai'i Distinguished Alumna. As a key member of the University of Hawai'i's communication's team across the 11 campuses, her expertise includes establishing video and digital media, including social media, at the Kaka'ako Campus, and employing it to promote better health to the people of Hawai'i.