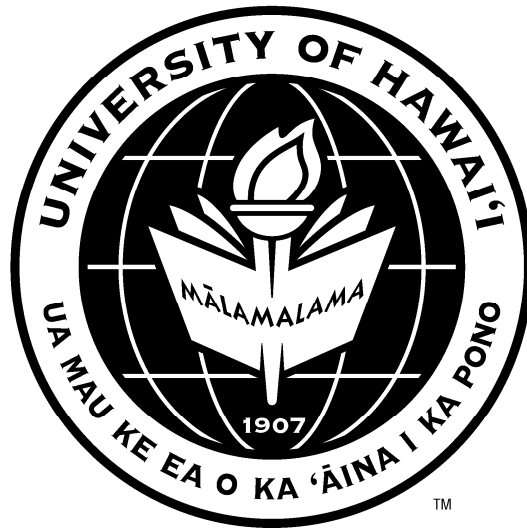


UNIVERSITY OF HAWAI‘I SYSTEM REPORT



REPORT TO THE 2023 LEGISLATURE

Report on the Progress Toward Administratively Affiliating the Cancer
Research Center of Hawai'i with the University of Hawai'i John A. Burns
School of Medicine

Act 8, SSLH 2021 (Section 4)

November 2022

Report on the progress toward administratively affiliating the Cancer Research Center of Hawai'i with the University of Hawai'i John A. Burns School of Medicine in order to identify opportunities to (1) capitalize on collaboration between the programs; and
(2) Maximize operational efficiencies between the University of Hawai'i John A. Burns School of Medicine and the Cancer Research Center of Hawai'i
Act 8, SSLH 2021 (Section 4)

Introduction

A visionary goal of Hawai'i's former governor, Ben Cayetano was to develop the University of Hawai'i at Mānoa (UHM) Kaka'ako Health and Well-Being campus to help advance medical education and research, and the campus would serve as the future home of UHM's medical school and cancer research center. With the financial support of the Hawai'i State Legislature, Governor Cayetano's vision was achieved. The UHM Kaka'ako 9.9 acre campus location is the main campus location for the John A Burns School of Medicine (JABSOM) and the Cancer Research Center of Hawai'i (hereinafter "UHCC"). JABSOM is home to 1,394 faculty, staff and students and approximately 1,400 volunteer faculty. UHCC is home to 275 faculty, staff and students and 112 collaborating researchers and clinicians.

In response to Act 8, SLH 2021 (i.e., SB589 SD2 HD2 CD1 AD1), this report presents the achieved and future efforts of JABSOM and UHCC to address the Act 8's Part 1, Section 1, Item 2 that states: *"Require the cancer research center of Hawai'i to be administratively affiliated with the University of Hawai'i John A. Burns School of Medicine and possibly merge the administrative services and infrastructure teams of both entities to offer greater efficiency."* JABSOM and UHCC have and continue to reduce duplicate efforts on the Kaka'ako campus to achieve greater efficiency of resources and ensure synergies of our related mission-based education and research activities conducted collectively and separately in order to best advance the health and well-being of the people of Hawai'i.

I. **Achieved Efficiency – Infrastructure and Operations Savings of over \$20 million**

The UHM Kaka'ako 9.9 acre campus is the main location for JABSOM and UHCC. The campus includes four JABSOM buildings, two UHCC buildings, three small on-campus parking lots, and three leased parking lots. The JABSOM buildings opened in 2005, and the UHCC buildings opened in 2013. To ensure cost efficiency and eliminate redundancy of required campus facilities construction, operations and services, the following implemented actions continue to benefit both units.

- JABSOM's basic science research building (BSB) animal vivarium was renovated and its insectary was repurposed to accommodate UHCC's animal vivarium research needs. This renovation eliminated the need for UHCC to build its own animal vivarium in its new buildings, saving UHCC building construction costs of approximately \$20 million, annual vivarium facilities operations cost of at least \$300,000, and UH animal and veterinary costs of servicing a third vivarium. UH System's Animal and Veterinary Service provides all animal and veterinary husbandry (i.e., animal care, not facilities operations) services for the animal vivariums located on the Kaka'ako and the Mānoa campuses.
- A shared Health Science Library is housed in the JABSOM medical education building (MEB). Access to medical and health related journal subscriptions are required to advance both units' education and research missions. Single library access eliminates the need to replicate library subscription costs, saving up to \$500,000 annually.
- Due to installation and space requirements that could not be accommodated without significant UHCC building renovation costs, JABSOM's fitness facility, housed in its auxiliary building, was converted to house UHCC's nuclear magnetic resonance (NMR) spectrometer. To accommodate the loss of JABSOM's fitness center, JABSOM's employees and student body have access to UHCC's newer and larger fitness center located in its building's Diamond Head wing.

- A working vendor based kitchen and café seating area housed in the JABSOM MEB services the entire Kaka‘ako campus.
 - Adjacent food services are required for JABSOM student body by the Liaison Committee on Medical Education (LCME) accreditation requirements. The general daily use of JABSOM’s café is enjoyed by both units’ employees and student body, and is also open to the general public.
 - In addition, UHCC houses a specialized metabolic kitchen used for research projects from both units supported by grants, contracts and sponsored clinical research studies.
- Eliminating redundant UHCC building construction, equipment costs, and facilities operating expenses, JABSOM and UHCC share JABSOM’s central plant building and loading dock area. Specifically:
 - JABSOM’s HVAC Sea water/cooling towers system and UHCC’s cooling towers are housed in the JABSOM-run central plant facility, and both units’ emergency generators and diesel fuel tanks are located in JABSOM’s loading dock area.
 - Both units share usage and maintenance costs of JABSOM’s owned solid waste disposal system, baler, recycling, sewage and water systems, and share the maintenance costs of the fuel tanks, diesel generators, and storm drains.
 - Shared space usage and emergency personnel cross-coverage increases overall equipment and building footprint efficiency between JABSOM and UHCC buildings.
- UHCC recently joined JABSOM’s established telecommunications system that resulted in the reduction of both JABSOM and UHCC’s annual telephone maintenance and upgrade costs.
- JABSOM and UHCC collectively manage three on-location parking lots and three offsite leased parking lots. Parking co-management promotes efficient use of available parking, reducing the leased cost of unoccupied space, and sharing of maintenance and repair costs for all lots and the campus’s private Keawe Street access road.
- JABSOM and UHCC eliminated private security contracts and now share on-site security personnel provided through Mānoa Department of Public Safety.
- Active campus administrative and infrastructure collaboration includes:
 - Reducing common staff positions via attrition and sharing personnel expertise.
 - Cross coverage between units in the areas of:
 - facilities and grounds maintenance and operations,
 - physical and emergency security,
 - environmental health and safety,

- human resources issues including Title IX and investigations,
- medical malpractice insurance risk and compliance,
- information technology support, and
- shared fiscal oversight of joint program and campus costs.

II. **Achieved Mission-based Synergies - \$79.3 M Contract & Grants Awards**

JABSOM and UHCC separately and collectively conduct medical research in the areas of bioinformatics, cancer, cardiovascular disease, diabetes, prevention, genomics, Native Hawaiian and Asian Pacific studies, reproductive medicine, tropical medicine and infectious diseases, etc. Collectively, JABSOM and UHCC were awarded over \$79.3 million in contract and grant awards in fiscal year 2022. Expending these grants and contract award dollars boost Hawai'i's overall economy and jobs in addition to advancing the health and well-being of Hawai'i's people. JABSOM and UHCC's similar medical education and research missions continue to achieve synergy and expenditure efficiency through collaboration in the following areas.

- Thirteen of UHCC's 66 full and associate members are JABSOM appointed faculty members, along with 11 collaborating or core clinical members, including the JABSOM dean and associate deans. Multiple UHCC clinically oriented faculty also have joint appointments in JABSOM (e.g., faculty from the Departments of Medicine, Obstetrics & Gynecology, Pediatrics, and Pathology).
- UHCC supports two first-year graduate students in JABSOM's Cell and Molecular Biology (CMB) department and assists the department in fulfilling its didactic and laboratory training mission. A number of JABSOM graduate students earn their PhD degrees by working with UHCC faculty as primary mentors.
- UHCC and JABSOM faculty principal investigators (PI) have jointly submitted multiple research grant proposals and work together on research grants and contracts.
 - A recent large grant proposal called 'Akahi also included UHM's College of Engineering. The 'Akahi proposed grant is designed to provide funds to recruit Native Hawaiian and Pacific Islanders into faculty positions across UH's STEMM (science, technology, engineering, mathematics, and medicine) programs and create a culture of Inclusive Excellence at UH Mānoa.
 - Another large P50 grant application to establish a Specialized Program of Research Excellence (SPORE) in cancer health disparities was also submitted in September 2022 with investigators from both units. If funded, this grant will help advance translational cancer research in Hawai'i.
 - A JABSOM faculty member co-leads a Cancer Center effort on a research partnership with Guam. Several of the large JABSOM Center of Biomedical Research Excellence (COBRE) grants include UHCC faculty either currently or previously.

- JABSOM faculty frequently collaborate with UHCC's Multiethnic Cohort (MEC) grant, an internationally renowned epidemiological study on cancer and other chronic diseases among ethnic/racial populations in Hawai'i and Los Angeles, now in its 28th year of National Cancer Institute (NCI) funding.
 - JABSOM and UHCC have awarded pilot research funds in support of each units' junior faculty members.
 - JABSOM joined UHCC in further developing a Kaka'ako campus-wide Genomics and Bioinformatics shared resource, and share wet-lab research equipment and personnel, which increases efficiencies in the use of research assets and operating costs.
 - Nomination of JABSOM faculty researchers for grant mechanisms available only to NCI-designated Cancer Centers.
- JABSOM and UHCC collaborative administrative and leadership engagement include:
 - JABSOM's dean is a board member of the UHCC's Hawai'i Cancer Consortium. The consortium was created by UHCC and includes JABSOM, the major hospital systems (Queens, Hawai'i Pacific Health, Adventist Health Castle, Kuakini) and HMSA. In addition to the Director of UHCC and the Dean of JABSOM, the chief executive officers (CEO) of these respective institutions, the UH President and UHM Provost form the Board of Directors for the consortium to coordinate efforts in Hawai'i to reduce the burden of cancer and enhance the quality of cancer care for our state.
 - UHCC's director is also a board member of the JABSOM-created University Health Partners of Hawai'i (UHP) faculty practice plan. UHP supports the clinical service missions of JABSOM, UHCC, UH Hilo's Daniel K. Inouye School of Pharmacy, and UHM's Nancy Atmospera-Walch School of Nursing.
 - Standing meetings between JABSOM and UHCC's executive and management leaders (e.g., UHCC's director, deputy and associate directors, and JABSOM's dean, and associate deans, and both units' administrative and infrastructure managers).

III. Future JABSOM and UHCC Strategic Collaboration

In fiscal year 2023, JABSOM and UHCC will be under new executive leadership. Starting in December 2022, Dr. Naoto Ueno will become the Director of UHCC, and at the end of February 2023, Dr. Jerris Hedges, JABSOM's dean will be retiring. Effective March 1, 2023, Dr. Lee Buenconsejo-Lum will serve as JABSOM's interim dean. In ongoing discussions with UHM Provost Dr. Michael Bruno and JABSOM and UHCC's executive leadership teams, we are working to determine ways to increase JABSOM and UHCC's cancer-based education and research synergies. Implementation will require navigation of various oversight bodies and joint reporting of faculty education and research achievements, as guided by the UH Mānoa accreditation bodies, including the Senior College & University Commission of the Western Association of Schools and Colleges, National Cancer Institute for Cancer Center designation, the Association of American Medical Colleges for medical school ranking purposes, and the Liaison Committee on Medical Education for medical school accreditation. JABSOM and the UHCC are aiming to jointly develop a medical oncology fellowship program in Hawai'i, which will help address the oncologist shortage in the state. Any new oncology fellowship must be

developed in accordance with the Accreditation Council on Graduate Medical Education requirements. To facilitate this effort, JABSOM has offered the incoming UHCC Director, Dr. Ueno, the opportunity to serve as a JABSOM Assistant Dean and as a member of the JABSOM executive leadership team. This important new role will help facilitate the engagement of the UHCC and JABSOM faculty as strong partners in the critical effort to increase the educational and research opportunities in the health systems where JABSOM and UHCC faculty practice, where cancer-care delivery occurs and where treatment trials are conducted. Synergies are also being developed between JABSOM and the UHCC and other UH schools and colleges which house other disciplines that are integral to cancer research (biology, chemistry, social work and public health, nursing, nutrition, pharmacy, engineering, social sciences, psychology, communications, etc.) through special initiatives and through the Provost's University-Wide Interdisciplinary Collaboration in Health Sciences initiative, as discussed in the next section.

Progress Report on University-Wide, Interdisciplinary Collaboration in Health Sciences

Introduction

The University of Hawai'i at Mānoa (UH Mānoa) has long possessed impressive strength and breadth in disciplines related to the health sciences and medicine. We presently offer more than **50** health sciences-related degrees and certificates across **nine (9)** different colleges and schools. We offer the only medical degree in the Pacific, host the largest social work, nursing, and public health programs in the state and the only NCI-designated cancer center in the Pacific. The world-class health sciences research at our schools, colleges and organized research units brought more than \$130 million in external grants and contracts to Hawai'i just in the last fiscal year. UH Mānoa's clinical learning, care and research occur in partnership with O'ahu hospitals, clinics, Federally Qualified Health Centers, private practices, non-profit health care organizations, the Department of Health, the Department of Human Services, the Department of Public Safety (corrections), the Department of Education, and facilities that provide care for sheltered and unsheltered houseless individuals and families.

The critical role UH Mānoa plays in support of the health and wellbeing of the state was never more evident than during the COVID-19 pandemic when education, research, and clinical care delivery and guidance by UH Mānoa faculty and learners supported everything from resourcing Hawai'i's commercial labs with supplies and faculty who led all COVID-19 related lab testing, to setting up diagnostic and research labs, research into the effectiveness of vaccines and vaccine hesitancy, real-time analyses of health data, addressing health disparities and outreach to underserved populations, health policy guidance, on-demand training of health care workers and contact tracers, research on health effects of delayed medical visits, such as cancer screening and late diagnosis, and regular analyses of the state's economic outlook. Our health professions faculty developed novel educational delivery methods in clinical training sites to ensure clinical care and education continued for O'ahu's most vulnerable patients. Without the dedication and work of scores of UH Mānoa faculty, staff, and students from units as varied as the Schools of Medicine, Nursing, Social Work & Public Health, UHCC, Engineering, Agriculture and Human Resources, Social Sciences, and many more, the state's recovery would have been drastically delayed.

While the sheer number, variety, and impact of our programs demonstrate the richness, vitality, and critical importance of our work in Hawai'i, the Pacific and beyond, they also give rise to a fundamental question: What more could we accomplish on behalf of our students and the communities that we serve if we could amplify and expand this important work, via stronger coordination across our academic and research units; via better articulation with partner

programs across the UH System and in the state; and via increased input, integration and collaboration with the state's health systems and government? We believe that as we emerge from the pandemic, our success in this area is a strategic imperative for the university and for the state. Given the statewide importance of UH Mānoa's role in this area, it is our kuleana, our right and our privilege, to lead this effort.

Opportunities and the Need for Change

In order to advance the university's interdisciplinary work in healthcare and medicine, the Provost assembled a Health Sciences Working Group in March, 2022. The group is composed of the dean or associate dean of the following UH Mānoa units: JABSOM, UHCC, School of Nursing, Thompson School of Social Work and Public Health, College of Tropical Agriculture and Human Resources (CTAHR), the College of Natural Sciences (Life Sciences), and School of Ocean and Earth Science and Technology Pacific Biosciences Research Center. External members include the CEOs of Queens Health System and Hawai'i Pacific Health. In the Fall of 2022, additional members were added, including the UH Hilo College of Pharmacy and the Director of the State Department of Health. Monthly meetings have been held since April 4, 2022.

The Working Group has determined that the university must create a culture and an enabling infrastructure to accomplish the following goals.

1. Strengthen and expand the healthcare workforce in Hawai'i and the Pacific through more effective and efficient articulation, from inside and outside of the UH System, with UH Mānoa degrees. Expanded opportunities for clinical and practicum training within the local health systems will be key to this goal.
2. Support and expand interprofessional education opportunities across our health sciences and life sciences programs, both undergraduate and graduate, to better prepare the state's workforce to work across interdisciplinary teams to improve health outcomes.
3. Build on and expand reciprocal partnerships with the health systems, government, and health industry to inform curricula and program development, clinical and translational research, and cooperative extension across the state and in the Pacific.
4. Provide STEM and life sciences majors with clear pathways to health sciences careers through improved advising and counseling, and the development of cross-disciplinary tracks to graduate and professional degrees.
5. Better coordinate, expand, and scaffold K-12 bridge programs in the life sciences and health sciences to encourage the exploration of healthcare and medical careers at an earlier age, particularly in populations underrepresented in the health and medical fields.
6. More broadly define the health sciences to recognize the impacts of climate change, including via the One Health initiative that connects human health to the environmental microbiome, and the role of agriculture and nutrition in preventing disease.
7. Leverage and support the research expertise across campus to compete for larger, higher-impact grants to increase funding, training, and translational research in the state and across the Pacific.

8. Extend UH Mānoa's clinical and translational research to the neighbor islands and rural communities by leveraging CTAHR's Extension infrastructure, as well as existing health professional program collaborations with health systems, Federally Qualified Health Centers, the Department of health, Department of Human Services, Department of Public Safety (and others) to improve health outcomes across the state.
9. Provide a convening space and staff for faculty researchers, industry professionals, and government leaders to assess, collaborate, and respond to critical health threats to the state.
10. Transfer advances in knowledge and technology development to patient care and health policy in Hawai'i and the Pacific.
11. Provide a one-stop "portal" for information exchange, and a unified voice for Health Sciences and Medicine education and research.

Work is continuing in this area, with the expectation that we will create an enabling organization for the Health Sciences similar to successful organizations at public R1 universities elsewhere in the nation, e.g., the University of Washington. This work is at an early stage and will require considerable more effort and coordination across the UH System and with our external partners in the private sector and government.