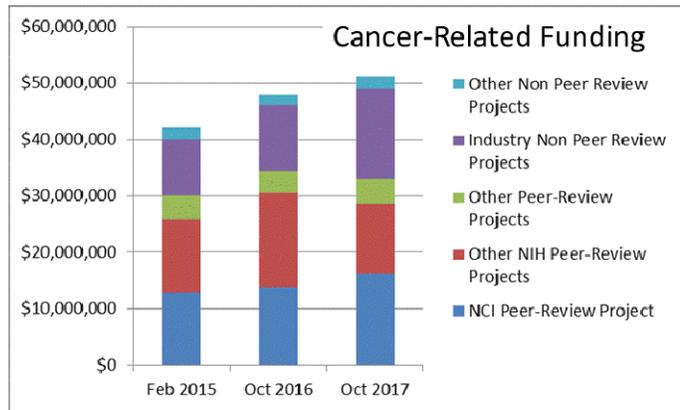


Introduction

The University of Iowa Cancer Center obtained NCI Comprehensive Cancer Center designation in 2000. Soon after, the Holden Comprehensive Cancer Center (HCCC) was named in recognition of a major gift from the Holden family. NCI designation was renewed in 2005, 2011 and 2016 (with an “outstanding” priority score). The HCCC has a highly interactive culture, with strong collaborative relationships among laboratory, clinical and population researchers as well as clinicians from different specialties. Both NCI and overall funding have increased since the time of the last P30 submission.



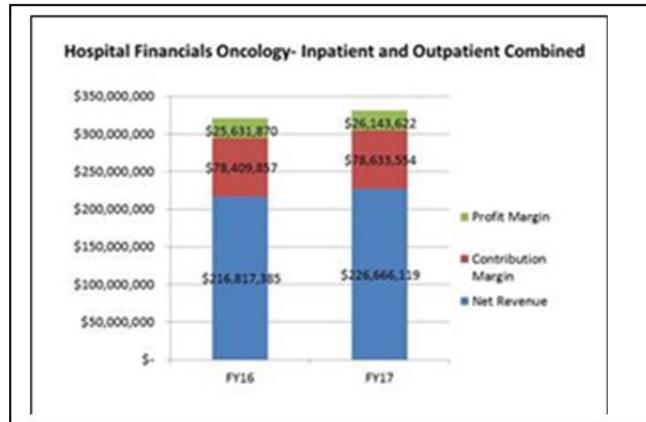
HCCC members have programmatic grants from the NCI in free radical cancer biology (fundable score on a new P01), quantitative imaging (U01), lymphoma (P50 SPORE) and neuroendocrine tumors (P50 SPORE). Basic science strengths include research on DNA replication and repair, cancer redox biology, understanding the role of the tumor microenvironment in cancer progression, and innovative animal models of cancer. Accrual to therapeutic trials continues to grow. 2017 phase I trial accrual is more than double that of any prior year.



Clinical research strengths include innovative trials in free radical metabolism, cancer immunotherapy, melanoma, sarcoma and a growing portfolio in GU cancers. Cancer Epidemiology is an historic area of strength based on large Iowa cohorts including the Iowa SEER program run through the College of Public Health. A Cancer Biology graduate training program welcomed its first students in 2016.

Clinical strengths are based on 11 disease specific Multidisciplinary Oncology Groups (MOGs) with tumor boards, as well as a robust molecular pathology program. The HCCC supports additional teams focused on bone marrow transplant and cellular therapy, palliative and supportive care, psychosocial oncology and adolescent and young adult cancer. The HCCC market share is higher for the less common malignancies than for more common malignancies based on referral patterns and clinical trial portfolios. Overall, cancer medicine makes a major contribution to both the profit margin and contribution margin of the medical center.

The HCCC is structured as a matrix cancer center that supports all three missions. All faculty appointments are made through Departments. The HCCC coordinates all cancer-related philanthropy through the UI Foundation in close collaboration with the VMPA, Department Heads, Division Heads and Deans of other colleges. The HCCC also coordinates subspecialized, multidisciplinary clinical cancer care. Clinical budgets, such as for the cancer clinic and infusion area, are managed by the HCCC through University Hospital with budgets established on a unit by unit basis. Major initiatives of the HCCC in 2017 included the following:



- Enhance bench to bedside translation in areas of basic research strength
- Support innovative cancer-focused team research
- Strengthen HCCC's investigator initiated early phase clinical trials portfolio
- Implement novel clinical and research approaches to cancer immunotherapy
- Participate and lead in population-based research efforts such as pragmatic trials
- Strengthen HCCC's molecular oncology capabilities
- Develop a world-class graduate program in cancer biology
- improve the patient experience through enhanced care coordination
- Develop a world class Adolescent Young Adult cancer program
- Improve our ability to meet the psychosocial needs of our patients
- Expand our market share in the more common malignancies
- Develop a statewide effort to provide quality clinical cancer services across Iowa.

The HCCC recently developed a five year comprehensive strategic plan that includes some of these ongoing initiatives based on the organization of the UI Healthcare strategic plan. The HCCC Plan covers the research, clinical and educational missions of the HCCC and includes many of the items that are a current focus of the HCCC. The new five year strategic plan will be used annually to establish focused administrative, scientific, clinical and educational priorities for the HCCC.

The central organizational challenge facing the HCCC (all three missions) relates to limited linkage between agreed-upon vision and financial support. More specifically, support for the HCCC is fragmented and based on siloed, short term and frequently changing metrics, not the overall performance of cancer research or the clinical cancer service line. Moving forward, a comprehensive approach to supporting the efforts of the cancer center based on the overall performance (clinical, research, educational) across the cancer continuum, and more predictable resources based on this overall performance, would allow for greater progress in all three missions during this amazing time of change and progress in cancer research and medicine.

Process

- 56 sessions were held by HCCC core strategic planning team in October and November 2017
- 70 participants participated in a comprehensive, grass-roots process
- Interviews and meetings were led by HCCC administrative leadership, strategy senior project manager and an administrative fellow
- Participants included
 - Research Program leaders
 - Members of cancer-type specific Multidisciplinary Oncology Groups
 - Interdisciplinary groups (e.g. Bone marrow transplant, Palliative care, Adolescent Young Adult)
 - Department Chairs and Division/Section Heads
- Results were discussed with various HCCC leadership groups
- A draft five year strategic plan was developed that will be presented to HCCC External Advisory Board on December 1, 2017
- Feedback on plan and prioritization of initiatives for 2018 to be obtained during HCCC Grand Rounds on December 8, 2017
- The five year HCCC strategic plan, along with setting of 2018 priorities, will be finalized in early January 2018

DRAFT

Mission, Vision and Core Values

Mission

The mission of the Holden Comprehensive Cancer Center is to decrease the burden of cancer in Iowa, surrounding communities and around the world through improved cancer prevention and treatment based on the three interdependent missions of research, clinical service and education.

Vision

A fully integrated cancer center across research, clinical service and educational missions, Each mission valued, supported, respected, and stronger together, Partnering with each other, across the University of Iowa and with other cancer centers and organizations, Responding quickly to opportunities within an ever-changing environment to achieve excellence, All with the goal of reducing the burden of cancer for those we serve

Core Values

Innovation: We seek creative ways to solve problems.

Collaboration: We believe interdisciplinary teamwork is the best way to address our mission.

Accountability: We behave ethically, act openly and with integrity in all that we do, taking responsibility for our actions.

Respect: We honor diversity and recognize the worth and dignity of every person.

Excellence: We strive to achieve excellence in all that we do.

HCCC Strategic Plan Outline

- 1. Best People – The HCCC will collaborate with other units at the University of Iowa including Departments, Colleges and the UI Hospital to recruit, support and retain the most talented faculty, staff and students with an eye towards enhancing diversity.**
 - a. Recruit outstanding leaders
 - b. Recruit outstanding faculty dedicated to all three missions
 - c. Recruit and retain high quality junior faculty and trainees
 - d. Recruit clinical staff in focused areas
 - e. Develop new leaders and plan for succession

- 2. Collaborative Learning, Research and Care Models – The HCCC will leverage its culture of collaboration to enhance excellence in clinical care, research and education through novel collaborative models.**
 - a. Invest in strategic areas of national research excellence based on scientific discipline and cancer type
 - b. Enhance clinical care and clinical research in strategic areas of regional excellence including the most common malignancies
 - c. Enhance the ability of the Multidisciplinary Oncology Groups (MOGs) to contribute to clinical care and research
 - d. Support and enhance interdisciplinary educational activities

- 3. Nimble Structure and Accountable Culture – The HCCC will link vision to operations and budgeting through a comprehensive, metric-driven, efficient system to assess and track the overall performance of the HCCC across its three missions.**
 - a. Develop a comprehensive approach to investing in new programs
 - b. Define accountability of the HCCC for UI Healthcare network and off-site activities
 - c. Strengthen clinical research
 - d. Strengthen integrated marketing and communication

- 4. Diversified Financial Resources – The HCCC will identify resources to enhance excellence in all three missions, and to assure a continued ability to leverage the synergy between missions.**
 - a. Enhance competitiveness of HCCC members for external peer-reviewed funding
 - b. Identify alternative sources of support including philanthropy
 - c. Prioritize and advise the institution on innovative technologies and capital needs

- 5. Strong Partnerships – The HCCC will facilitate strong partnerships within the cancer center, within the institution and outside the institution.**
 - a. Strengthen internal partnerships
 - b. Participate and lead state-wide and national collaborative efforts
 - c. Expand ability of referring physicians and HCCC clinicians to collaborate

Holden Comprehensive Cancer Center Five Year Strategic Plan

- 1) **Best People – The HCCC will collaborate with other units at the University of Iowa including Departments, Colleges and the UI Hospital to recruit, support and retain the most talented faculty, staff and students with an eye towards enhancing diversity.**
 - a. Recruit outstanding leaders
 - i. Division Director, Hematology Oncology and Blood and Marrow Transplant
 - ii. Division Director, Gynecologic Oncology
 - iii. Arlene Holden Breast Cancer Research Chair
 - iv. Cancer Molecular Epidemiologist
 - v. Leukemia Multidisciplinary Oncology Group Leader
 - vi. Pediatric Oncology Clinical Director
 - b. Recruit outstanding faculty dedicated to all three missions.
 - i. Clinical and clinical research recruits including in pediatric leukemia /lymphoma, adult leukemia/lymphoma, breast medical oncology, radiology, neuroendocrine tumors and psychology.
 - ii. Basic research recruits including in free radical biology, cancer immunotherapy, signaling, the tumor microenvironment, and the microbiome.
 - iii. Population science recruits including investigators who can leverage HCCC relationships with the Iowa Cancer Consortium, the CTSA, PCORI-funded Greater Plains Collaborative, the Iowa Research Network (IRENE), Iowa Cancer Prevention and Control Research Network, and the Iowa City Veteran’s Administration Medical Center community-based practice network.
 - c. Recruit and retain high quality junior faculty and trainees
 - i. Obtain an NCI T32 to support graduate training in Cancer Biology
 - ii. Expand the HOBMT fellowship
 - iii. Identify resources to sustain other successful training programs
 - iv. Assign mentorship committees for trainees and junior faculty
 - v. Support top notch trainees and young faculty to enhance their career development and retention
 - vi. Develop a certificate program in Cancer Biology for clinical cancer trainees interested additional laboratory training
 - vii. Support training and mentoring programs for under-represented minorities
 - d. Recruit clinical staff in focused areas
 - i. Clinical care coordination and patient navigation
 - ii. Psychosocial oncology
 - iii. Adolescent Young Adult cancer Program
 - e. Develop new leaders and plan for succession
 - i. Provide leadership opportunities for up-and-coming leaders
 - ii. Support participation in leadership training programs
 - iii. Plan for succession of senior leadership positions

2) Collaborative Learning, Research and Care Models – The HCCC will leverage its culture of collaboration to enhance excellence in clinical care, research and education through novel collaborative models.

- a. Invest in strategic areas of national research excellence based on scientific discipline and cancer type
 - i. Invest in areas of national research excellence in scientific disciplines such as free radical metabolism, DNA repair, cancer immunotherapy, epidemiology, metastasis, quantitative imaging and novel animal models
 - ii. Invest in areas of national research excellence in cancer types such as neuroendocrine tumors, lymphoma, sarcoma, endometrial cancer, melanoma and myeloma
 - iii. Support collaborative interactions between scientific disciplines across the spectrum of basic, clinical and population research in areas of national research excellence
 - iv. Support teams preparing for submission of P level grants
 - v. Support recruitment of faculty, including junior faculty, based on the quality of the faculty recruit and their ability to contribute to areas of national research excellence
 - vi. Support inter-institutional collaborative research efforts as appropriate
- b. Strengthen clinical care and clinical research in strategic areas of regional excellence including the most common malignancies
 - i. Enhance care coordination and allow staff to deliver state-of-the-art multidisciplinary, subspecialty care and outstanding patient service
 - ii. Integrate inpatient and outpatient care
 - iii. Enhance rapid access of patients to services including imaging and same day services when needed
 - iv. Strengthen and enhance integration of molecular oncology, psychosocial oncology, supportive and palliative care and survivorship into cancer care
 - v. Prepare for future of alternative reimbursement models
 - vi. Enhance tracking of adherence to established clinical pathways
 - vii. Enhance portfolio of, and accrual to, trials addressing common malignancies
- c. Enhance the ability of the Multidisciplinary Oncology Groups (MOGs) to contribute to clinical care and research
 - i. Provide and coordinate multidisciplinary clinical care and clinical research
 - ii. Integrate basic and population scientists into disease-focused research
 - iii. Enhance synergy among the clinical, research and educational missions
 - iv. Identify, obtain and utilize cancer-type specific resources including grants, contracts and philanthropy
- d. Support and enhance interdisciplinary educational activities.
 - i. Create a Cancer Education Executive Committee to coordinate education activities
 - ii. Increase the profile and size of the recently established graduate program in Cancer Biology

3) Nimble Structure and Accountable Culture – The HCCC will link vision to operations and budgeting through a comprehensive, metric-driven, efficient system to assess and track the overall performance of the HCCC across its three missions

- a. Develop a comprehensive approach to investing in new programs
 - i. Assign clinical resources based on overall clinical performance of the cancer service line across academic and hospital units
 - ii. Identify adequate resources for high priority cancer research faculty recruitment
 - iii. Use resources across the clinical, research and educational missions based on the synergy between missions
 - iv. Track seed grant productivity

- b. Define accountability of the HCCC for UI Healthcare cancer care network and off-site activities away from the main campus.
 - i. Develop and implement principles for decision making and communication for network and off-site activities
 - ii. Define roles and responsibilities of the HCCC in network and off-site activities
 - iii. Enhance communication with referring providers

- c. Strengthen clinical research.
 - i. Support investigator initiated and phase I trials
 - ii. Enhance communication about available clinical trials internally, across Iowa and nationally
 - iii. Develop a phase I cancer unit in collaboration with the ICTS and UI Hospitals and Clinics
 - iv. Support participation of all clinical faculty and staff in clinical cancer research
 - v. Facilitate Iowa's participation in the Oncology Research Information Exchange Network (ORIEN) and Big Ten Cancer Research Consortium
 - vi. Market early phase clinical trial capabilities and successes to other academic centers, government and industry

- d. Strengthen integrated marketing and communication
 - i. Develop and prioritize web content strategy across all three missions
 - ii. Highlight clinical capabilities and market differentiators for each MOG with a focus on the more common malignancies
 - iii. Promote the national reputation of Holden as a leader in cancer
 - iv. Assure ease of navigation for various constituencies (prospective and current patients, referring providers, researchers, prospective students)
 - v. Maximize social media presence across the tripartite mission
 - vi. Strengthen ability to promote and communicate clinical trials eligibility and accrual information

4) Diversified Financial Resources – The HCCC will identify resources to enhance excellence in all three missions, and to assure a continued ability to leverage the synergy between missions.

- a. Enhance competitiveness of HCCC members for external peer-reviewed funding
 - i. Provide robust internal pre-review of research grant applications prior to submission
 - ii. Provide HCCC membership with information related to funding opportunities
 - iii. Assist investigators in highlighting unique cancer research resources in their grant applications

- b. Identify alternative sources of support including philanthropy
 - i. Mentor clinical investigators in conducting investigator-initiated trials supported by industry
 - ii. Support collaborative teams including clinical investigators in obtaining peer-reviewed funding for correlative science
 - iii. Encourage generation of intellectual property and entrepreneurship
 - iv. Reinstate HCCC advocacy board to assist with fundraising efforts
 - v. Develop menu of highest philanthropic needs
 - vi. Explore funding sources for educational activities
 - vii. Expand Direct Access Comprehensive Cancer Program to identified employers.

- c. Prioritize and advise the institution on innovative technologies and capital needs
 - i. Determine what new research cores or investment in new technologies is needed to advance HCCC research (e.g. genomics technology, immunotherapy technology)
 - ii. Determine resources needed for clinical care (e.g. radiation therapy, screening, cellular therapy)
 - iii. Identify needs related to medical informatics (e.g. Beacon plans for pediatric oncology, new IT modules and research access to EHR)
 - iv. Determine the medium term space needs to allow for growth of both research and clinical care
 - v. Consider the long term value of new patient tower having a cancer medicine focus

5) Strong Partnerships – The HCCC will facilitate strong partnerships within the cancer center, within the institution and outside the institution.

- a. Strengthen internal partnerships
 - i. Develop a more rational and transparent approach to the budget process and funds flow
 - ii. Collaborate early and consistently in the process of recruitment including identification of financial resources and space
 - iii. Continue collaborative approach to philanthropy involving HCCC, Departments, Colleges and Hospital

- b. Participate and lead state-wide and national collaborative efforts
 - i. Iowa Cancer Consortium
 - ii. ORIEN
 - iii. Big Ten Cancer Research Consortium
 - iv. PCORI Cancer Research Group
 - v. Great Plains Collaborative
 - vi. NCI National Clinical Trials Network

- c. Expand ability of referring physicians and HCCC clinicians to collaborate
 - i. Improve access to tumor boards
 - ii. Expand e-consult capabilities
 - iii. Open clinical trials as appropriate at network sites
 - iv. Explore novel approaches to telehealth
 - v. Collaborate with underserved rural, racial and ethnic populations to remove barriers to care and enhance participation in research.