Mission: We discover, develop and deliver the future of cancer care . . . now.

Vision: At Duke Cancer Institute, we capitalize on our critical mass of talent, game-changing science and integrated patient care. In collaboration with our patients, their loved ones and forward-looking supporters, we WILL change the rules on cancer. We will set a bar for what is possible—a way to end the life-robbing status quo. A way to win the battle against cancer.
I am pleased and proud to share with you Duke Cancer Institute’s strategic plan. The drafting of this plan required the collaboration of many, including Duke faculty, staff, our patients and also our supporters—each providing crucial input and valuable feedback. This plan is critical to the development of future programs that advance our strategic priorities.

This five-year plan is the over-arching story that outlines Duke Cancer Institute’s raison d’etre and ultimate vision. It details how we will carry out our unwavering commitment to drive paradigm shifts in how we learn to more effectively prevent, diagnose, and treat cancer. Because of our pioneering structure, we are uniquely positioned to realize breakthrough advances in basic science, clinical trials and patient care.

This plan lays the groundwork to enable enhanced basic discovery, faster translation, and improved design and approval of clinical trials—to move from bench to bedside in the shortest time possible—all while maintaining a sharp focus on quality and patient-centered care.

By attracting outstanding faculty and staff, front-runners in science, medicine and technology, we create a collaborative powerhouse—extending our expertise to benefit people who truly need the future of cancer care today. The Duke Cancer Institute 2017–2021 Strategic Plan charts a path to growth and expansion, enabling us to extend our reach, not only here in North Carolina but across the nation and even around the world.

Audacious, evolving, and unconventional—Duke Cancer Institute is poised to accelerate the pace of discovery and advancement. Sitting at the heart of Duke University, we will continue to call on, draw from and collaborate with scientists and scholars from schools and centers located across our world-renowned campus as well as with colleagues in our region and around the world. Duke Cancer Institute has created a mission-driven culture in which faculty, staff and rising stars are rewarded and valued for their unique contributions. And, as a result, we discover, develop and deliver the future of cancer care . . . NOW.

Sincerely,

Michael B. Kastan, M.D., Ph.D.
Executive Director, Duke Cancer Institute
William and Jane Shingleton Professor,
Pharmacology and Cancer Biology
Professor of Pediatrics
2017–2021 Strategic Plan

We discover, develop and deliver the future of cancer care . . . now.

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Strategic Plan

Strategic Goals

Quality and Patient Experience
Lead in the Delivery of Highest Quality, Patient-Centered Care
Set a new standard for quality and outcomes in cancer care delivered in a compassionate, supportive, responsive environment.

Growth and Impact
Grow and Extend our Reach and Impact Locally, Regionally, Nationally, and Globally
Extend Duke cancer expertise to benefit more people.

Discovery and Translation
Lead in Breakthrough Research Which Transforms the Way We Prevent, Diagnose, and Treat Cancer
Advance knowledge across the cancer research continuum from basic to translational to clinical to population sciences.

Training
Further Advance Duke as a Leader in Training the Cancer Workforce of Tomorrow
Be a national destination for top-tier trainees in cancer research and care.

Employer of Choice
Be the Employer of Choice for Professionals in Cancer Fields
Create a mission-driven culture in which faculty, staff, and trainees are empowered and valued for their unique contributions.
DCI’s Local/Regional/National Aspiration

Overarching Priority: Regional Focus with Targeted National Reach

A. Duke Health Primary Service Area*
To be the provider of choice for all portions of cancer care, expanding access to DCI quality care and reducing health disparities in our local community.

B. Southeast United States
To advance and solidify Duke’s position as the leading Comprehensive Cancer Center in the Southeast United States.

C. National Market
To enhance and extend Duke’s presence and impact nationally through the targeted growth and promotion of differentiated programs, services, or capabilities that advance all missions.

*Duke Health Primary Service Area encompasses Durham, Wake, Orange, Alamance, Person, Granville, and Vance counties
Defining Objectives Across Strategic Geographies

Primary Service Area
• Attract and retain patients for full spectrum of cancer care
• Enhance prevention and screening
• Increase and enhance community engagement and education (with a particular interest in reducing health disparities)
• Provide risk reduction/management for individuals for whom Duke bears risk
• Promote clinical research access and participation, including enhancing diversity of participants
• Provide training program placements
• Support broader Duke Health initiatives

Southeast Region
• Expand referrals for less common cancers and complex or specialized care
• Expand referrals for clinical trials
• Provide access to broader patient population for trial enrollment and/or access to patient data
• Support quality improvements and education in partner communities
• Provide training opportunities
• Expand philanthropic base
• Support broader Duke Health initiatives

National
• Expand referrals for rare cancers, flagship programs, and unique clinical trials
• Enhance funding opportunities for research
• Distribute knowledge/expertise to improve quality and outcomes while enhancing brand and reputation
• Expand philanthropic base
• Support broader Duke Health initiatives
We grow and expand our reach and impact locally, regionally, nationally and globally. We extend Duke cancer expertise to benefit more people.
How We Will Do It: Strategic Priorities

Strategic priorities to advance all of our goals

Develop high-impact *Differentiated Programs, Services, and Capabilities* that leverage the unique breadth and depth of resources and expertise from across Duke to meet critical needs along the cancer continuum—from bench to bedside.

Attract and retain top *Talent*.

Achieve *Performance Excellence* across all domains to deliver high value, highly reliable services to our constituents.

Foster strategic growth and advancement through focused *Business Development and Outreach* efforts.

Leverage the unique *Organization* of the DCI to further develop the *Infrastructure* and to facilitate engagement and success.
Strategic Recommendations: Differentiated Programs

Develop high-impact Differentiated Programs, Services, and Capabilities that leverage the unique breadth and depth of resources and expertise from across Duke to meet critical needs along the cancer continuum—from bench to bedside.

Recommendations

Leverage Duke’s distinctive capabilities to develop unique programs that advance knowledge and meet critical needs for reducing the cancer burden while also enhancing brand and reputation.

• Continue development of recent initiatives in onco-primary care, canine comparative oncology, brain metastasis, and cancer metabolism.

• Build a comprehensive cancer immunology program, focusing on filling gaps in basic and translational research.

• Prioritize initiatives in personalized cancer medicine across all programs, including ‘omics’ technologies, informatics/big data, and interfaces with translational and clinical activities.

• Facilitate entrepreneurial opportunities and invest in activities that promote commercialization of novel technologies.

• Continue to advance initiatives in survivorship; outcomes, including patient-reported outcomes; risk identification and reduction; and health equity.

Sustain and enhance a comprehensive multidisciplinary disease program portfolio with focused efforts for each program based on patient and clinical needs as well as research opportunities.

• Advance disease areas with high potential for differentiation and build around our strengths (e.g., Brain Tumors, Sarcomas, Urologic Cancers, High-Risk Breast Cancers, and Cellular Therapies such as stem cell transplant).

• Develop multidisciplinary disease-specific program plans to identify and prioritize efforts within disease programs to facilitate growth and advancement, identifying opportunities to advance all programs towards regional prominence and identifying additional national differentiators.
• Improve collaboration between clinical, basic translational, and population science faculty and enhance translational opportunities by integrating physician scientists into disease programs, with a goal of having at least one in each program.

**Offer cutting-edge technologies and services.**

• Support advanced diagnostic capabilities, surgical techniques, and radiation therapy modalities that draw patients and improve care.
• Define and support an expanded portfolio of clinical trials, including industry-sponsored and investigator initiated.
• Systematically and regularly identify, evaluate, and invest in new technologies that improve quality and outcomes.
Brain Metastasis – Nearly 150,000 Americans are diagnosed annually with cancer that has metastasized, or traveled, to the brain. The number is projected to rise. Because of a larger aging population, combined with improvements in cancer screening and care, up to 30 percent of patients with solid tumor cancers (mainly lung cancer, breast cancer, melanoma, and renal cell carcinoma) can expect their cancer to spread to the brain.

Duke Cancer Institute (DCI) is poised to meet the needs of these patients head-on. In late fall 2017, DCI, in collaboration with the Department of Neurosurgery and the Translating Duke Health Initiative, launched the Duke Center for Brain and Spine Metastasis.

The new cross-departmental and multi-disciplinary center capitalizes on the strengths of Duke expertise in basic science as well as the clinical disciplines of neurosurgery, medical oncology, radiation oncology, and imaging. Many of the affiliated clinicians are also associated with the world-renowned Preston Robert Tisch Brain Tumor Center that continues to lead the nation in having the largest clinical brain tumor service—seeing between 800 and 900 new brain tumor patients annually from 50 states and five countries.

There are rich opportunities for industry partnerships and philanthropy as the national reputation and visibility of the new center grows.

Canine Comparative Oncology – Duke Cancer Institute and North Carolina State University College of Veterinary Medicine joined forces nearly four years ago to further explore new cancer therapies that could offer better efficacy and less toxicity for both humans and canines. This unique formal partnership—the Consortium for Canine Comparative Oncology (C3O)—made their decades-long history in canine comparative oncology collaboration official.

The consortium has made it possible for investigators from both institutions to work together to advance pre-clinical discovery and clinical development of novel therapeutics and biomarkers that benefit both species. As the consortium grows into more of a national consortium, the infrastructure will be in a place to allow pharma and biotech to develop and think about the consortium as a way to test drugs in a much more efficient and cost-effective manner.
Onco-Primary Care – The emerging Center for Onco-Primary Care, an innovative program within Duke Cancer Institute, is partnering with the extensive Duke University Health System primary care network to establish unique, value-based, evidence-based, and patient-centric models of cancer prevention, cancer screening, and cancer survivorship care.

Onco-primary care leadership within DCI has stressed the importance of including primary care physicians in the management team of cancer patients—individuals with high risk for developing cancer, those on active cancer therapy, and those who’ve completed therapy—so that their cancer-related and unrelated health concerns, such as blood pressure, blood sugar and cholesterol levels, don’t fall through the cracks.

By uniting cancer specialists and primary care clinicians, the ultimate goal is for this program to become a national model for how cancer care is delivered.

Personalized Cancer Medicine – Duke Cancer Institute continues to build upon centralized biobanking efforts and sophisticated technologies so that researchers can effectively develop and provide therapies that are personalized for each patient across all tumor types.

These efforts include advancing our capabilities in informatics/big data (namely complex genomic data management, data integration, computing and statistical analysis), a robust ‘molecular tumor board’ and an efficient and nationally recognized early-phase clinical trials operation.

Cancer Immunotherapy – Development of cancer immunotherapies is a critical area of cancer therapeutics now and for the foreseeable future. While Duke Cancer Institute is currently fairly well positioned to do industry-sponsored clinical trials in this space, we need to enhance our abilities to develop and test novel immunotherapeutic approaches.

This requires the expansion of cancer-related basic immunology and immunotherapy research, through the support of current faculty and recruitment of new faculty. Opportunities to expand upon current expertise in this space, including cancer vaccine development, oncolytic viruses developed in the brain tumor group, and novel approaches to immunomodulation should be emphasized.

Disease-Specific Opportunities – Recognizing existing multi-disciplinary strengths, our national reputation, and special opportunities for highlighting our destination programs, Duke Cancer Institute will continue to support, further develop, and prioritize programs focused on brain and spinal cord tumors, sarcomas, prostate and urologic cancers, breast cancers, and hematologic malignancies and cellular therapies.
Strategic Recommendations: Talent

Attract and retain top Talent.

Recommendations

Design and resource training programs to attract top trainee talent and create a pipeline of high-potential trainees and early career scientists.

- Position ourselves to compete successfully for training grants across the cancer continuum.
- Enhance opportunities for career development and facilitate successful transition from trainee to independent researcher.
  - Develop mechanisms to support a longer “runway” for career development—two years in a lab and a three-year ramp up for funding.
  - Embed trainees and early career scientists in an existing lab to provide infrastructure and encourage collaboration.
  - Encourage mentorship by senior faculty.
- Emphasize growth of a physician scientist cohort and opportunities to enhance diversity.

Collaborate with Duke University School of Medicine (SoM) and Clinical, Basic, and Population Science Departments to enhance recruitment and retention of cancer-focused faculty.

- Identify, prioritize, and fill gaps in key scientific areas that could advance capabilities across multiple programs and enhance competitiveness for research funding (e.g., Cancer Immunology, Cancer Metabolism, Cancer Genetics & Epigenetics, Signal Transduction).
- Develop compensation and incentive models that recognize the competitive environment for talent and demonstrate value for all missions and contributions.
  - Assess the need and, if warranted, develop options for a community oncology compensation model.
  - Evaluate opportunities for streamlining and enhancing physician scientist compensation. Consider need for a physician scientist cohort with models unique to the expectations for that group.
- Develop competitive packages to enhance recruitment and retention opportunities for lab-based faculty.
• Assess succession and retention risk for all programs (clinical and research) and develop proactive workforce and retention plans.

**Provide ongoing training and development opportunities for faculty as they advance in their careers and have different needs.**

• Enhance management and leadership skills and capabilities to facilitate faculty members’ ongoing success and the success of their programs.

• Create tools and resources to enhance development of mentoring skills and capabilities.

**Elevate the role of nursing within the DCI and ensure incorporation of nursing expertise in all of our missions.**

• Ensure clinical nursing is embedded into multidisciplinary care teams.

• Develop training and professional development pathways for Research Nursing staff to strengthen clinical trials infrastructure and retain talent.

• Incorporate nursing into education and outreach initiatives.

**Empower our teams and advance a culture of excellence and mission focus.**

• Ensure care teams are multidisciplinary and incorporate expertise across professions.

• Develop teams and staffing plans that allow all providers and staff to work at the top of their licenses.

• Ensure teams and team members have time and support to engage in professional development, innovation, and knowledge sharing.

• Develop mechanisms to share best practices across teams, specialties, and professions.

• Develop specific plans to enhance recruitment and retention of clinical research staff.
We partner to enhance management and leadership skills to facilitate the ongoing success of our faculty and their programs.
Strategic Recommendations: Performance Excellence

Achieve **Performance Excellence** across all domains to deliver high value, highly reliable services to our constituents.

**Recommendations**

- Advance the standard of care and ensure consistent DCI quality cancer care at all Duke-affiliated sites of service.
  - Define and implement multidisciplinary/multiprofessional evidence-based care pathways across locations (owned and affiliated) to optimize value and to ensure consistent quality at all Duke Cancer Institute sites.
    - Advance new pathways where needed, with a focus on diseases or episodes of care that would most benefit.
    - Include supportive care services, survivorship, and palliative and end-of-life care in pathway design and implementation.
    - Incorporate patient-reported outcomes into pathway design and evaluation.
  - Optimize service offerings across owned and managed sites, creating protocols to support “right care, right place, right time”.
    - Enhance value to patients and payers.
    - Define “right place” for clinical trials.
    - Enhance access for underserved populations, and ensure consistency of care and education across all patients.
  - Develop plans to advance towards disease program specialization where possible (e.g., higher volume tumor types) at owned sites off the Duke University campus, enhancing consistency in the expertise patients benefit from regardless of site of care.

- Design and execute a patient experience that serves as a differentiator.
  - Deploy patient navigation to enhance access and seamless transitions of care across the continuum, across Duke cancer entities, and with referring/collaborating providers.
• Improve operational efficiencies to enhance access and patient flow, with a particular emphasis on treatment room flow and efficiencies to improve capacity.
• Actively engage patients and caregivers in design/redesign of care processes.
• Provide appropriate information and education to enable patients to understand their clinical and financial options, risks, and benefits.
• Leverage technology and digital innovation to enhance access and convenience and to support the educational needs of our patients and community.

Enhance access to clinical trials.
• To ensure a robust clinical trial portfolio, we will continue to improve clinical trial activation to establish DCI as the preferred partner with industry and other funders.
  • Enhance contracting capabilities and processes to continue improvements in clinical trial portfolio and study activation.
  • Streamline budgeting, financial management, and reporting of clinical trials operations across DCI.
• Expand ability to offer clinical trials in our community settings.
• Develop mechanisms to screen all patients for trial eligibility regardless of site of service or availability of trial at that site.
• Improve cultural sensitivity to enhance minority accrual to clinical trials.
• Improve availability of information regarding clinical trial options for patients and referring physicians, especially for those accessing this information via the DCI website.

To ensure a robust clinical trial portfolio, we will continue to improve clinical trial activation to establish DCI as the preferred partner with industry and other funders.
The future of cancer care... now
Strategic Recommendations: Business Development/Outreach

Foster strategic growth and advancement through focused *Business Development and Outreach* efforts.

**Recommendations**

Institute an outreach plan across Duke University to identify opportunities for new collaborations that leverage the breadth and depth of expertise across all of Duke Health.

- Identify and engage additional faculty with diverse interests in cancer research.
- Partner with existing expert resources for Health Services Research (e.g., Duke Clinical Research Institute (DCRI), Margolis Center for Health Policy; and The Forge, Duke University’s center for health data science data).
- Assess opportunities to collaborate with Duke-NUS Graduate Medical School and Duke Kunshan University to expand global presence and impact.

Develop a robust set of strategic partners beyond Duke to advance common priorities.

- Explore partnership opportunities to meet local community needs (e.g., reach underserved communities, fill gaps in care continuum).
- Identify opportunities to fully utilize the wealth of resources and partner opportunities in the Research Triangle, a region in the Piedmont of North Carolina.
- Optimize industry partnerships to access expertise, build competencies, and enhance research efforts.
- Focus opportunities with industry that advance entrepreneurship and innovation.
- Explore new opportunities to collaborate with advocacy groups.
- Proactively identify potential external collaborators for large multi-institutional grants and develop cross-institutional symposia to foster collaboration and to identify specific opportunities and strategize/organize for successful submissions.
Expand and strengthen relationships with referring physicians and affiliates.

- Optimize and leverage the existing regional partnership platform to achieve maximum value for and from existing relationships.
  - Advance the Cancer Care Plus collaborative to enhance access and service in Wake County.
  - Strengthen integration and coordination with Duke Cancer Network sites.
  - Strengthen integration and coordination with Duke LifePoint sites.
  - Explore opportunities to further leverage the LifePoint relationship.
- Develop referral management systems, processes, and standards.
- Leverage EPIC to enhance communication and coordination with referring partners.
- Identify high-potential markets and provider partners throughout the primary service area and southeast to expand outreach and enhance affiliation opportunities.

Explore potential to advance key regional/national initiatives.

- Develop a robust regional and national marketing and awareness campaign.
- Explore opportunities to enhance national visibility.
  - Encourage and support faculty in pursuing leadership positions on national societies.
  - Enhance and expand continuing education initiatives.
  - Explore opportunities to host conferences.
- Engage in advocacy initiatives to educate government, payers, and other key constituents on the benefits of ensuring access for patients to NCI-designated centers.
- Evaluate opportunities for regional or national contracting in cancer.
- Evaluate telehealth opportunities, including e-consults.
We engage in advocacy initiatives to educate government, payers and other key constituents on the benefits of ensuring access for patients to NCI-designated centers.
Strategic Recommendations: Infrastructure and Organization

Leverage the unique *Organization* of the DCI to further develop the *Infrastructure* and to facilitate engagement and success.

**Recommendations**

- Collaborate with Duke University Health System (DUHS) and Duke University School of Medicine (SoM) to identify near- and longer-term space for growth.
  - Continue to advance near-term and long-term space plan for oncology services.

- Enhance data and analytics platforms and access to facilitate research and clinical care, including predictive analytics.
  - Grow capabilities in bioinformatics.
  - Develop systems solutions to database development and management across all sites.
  - Fully leverage the new Clinical Trials Management System, including linking with EPIC electronic health record.
  - Develop processes and mechanisms to fully leverage data available in EPIC electronic health record for clinical and research initiatives.

- Develop processes and resources to enhance success with large, multi-investigator grants.
  - Target promising funding opportunities beyond NIH by anticipating funding announcements and proactively identifying, assessing, and organizing around high-potential projects and teams.
  - Further develop and resource the DCI grants administration function to effectively support large, collaborative program grants.
Further develop a culture of inclusion and commitment to a common mission and vision.

- Identify opportunities and develop mechanisms to enhance integration, collaboration, and communication across geographies to support a “one DCI” mentality.
- Assess leadership structure and accountabilities to enable successful execution of the plan.
  - Clarify clinical and operational management and oversight of community settings.
  - Evaluate and refine role and accountabilities of disease group leaders with regard to:
    - Enhancing collaboration between clinical, basic, and population scientists
    - Extending reach to owned sites off main campus
    - Improving communication of DCI plans, priorities, and opportunities
- Leverage strategic plan to align members and staff around our common priorities.
- Enhance communication with a focus on celebrating successes and empowering teams to contribute.

To support a “one DCI” mentality, we identify opportunities and develop mechanisms to enhance integration, collaboration and communication across geographies.
The future of cancer care . . . now
Implementation Priorities

Differentiated Programs

• Launch brain metastasis initiative
• Develop disease program plans
• Advance proton therapy center development
• Continue to build upon the Personalized Cancer Program
• Implement Center for Duke Onco-Primary Care

Talent

• Collaborate w/basic science departments to recruit cancer-focused faculty
• Support training mission

Performance Excellence

• Define/Deploy evidence-based paths
• Establish metrics to measure program success

Business Development and Outreach

• Establish strategic planning framework for Wake County in conjunction with Cancer Care Plus activities that tie, as appropriate, to overall DCI Strategic Plan
Organization and Infrastructure

• Launch communication plan to ensure broad awareness of strategic priorities

• Assess leadership structure to support DCI strategic priorities

• Cancer Center Support Grant (CCSG)

• Complete plans for facility expansion of North Pavilion
I extend my sincerest thanks to Duke Cancer Institute leadership, faculty and staff, our patients and supporters and all others who were instrumental in the formation of this five-year DCI Strategic Plan. Your contributions and expertise have ensured that this plan lays the foundation for the development of future programs and enables us to continue our mission to discover, develop and deliver the future of cancer care . . . now.

With gratitude and appreciation,
Michael B. Kastan, MD, PhD,
Executive Director, Duke Cancer Institute