The Quest for NCI Designation and the Power of Vision and Focus

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I am here today to tell you a story about how the University of Kansas Medical Center has been building a National Cancer Institute (NCI)-designated Cancer Center, and some of the lessons we have learned from this extraordinary quest.

We had already begun this effort when, in his September 2005 convocation speech at the Medical Center, then-University of Kansas Chancellor Robert Hemenway announced that attaining NCI designation for our cancer center was the University’s number-one priority.

His dream for Kansas, he said, “is nothing short of ending suffering and death from cancer.”

A cancer survivor himself, Chancellor Hemenway understood the scope of the challenge. Cancer is the second most common cause of death in the United States. This year, it’s estimated that more than 1.5 million people will be diagnosed with cancer in the United States – more than 13,000 in Kansas. More than 5,200 Kansans died of cancer in 2008.

Obtaining NCI designation was, the Chancellor said, “our university’s number-one priority.” Then he repeated it. “Notice I did not say the Medical Center’s number-one priority. This initiative will require the resources of our entire University.”

Chancellor Hemenway promised that KU would build its cancer center “not as a fortress but as a broad network of resources.” To secure those resources, he promised to work with elected officials at the state and federal levels and to enlist the KU Endowment Association, along with private citizens, foundations and corporations to become our partners.

This was excellent news for us at the Medical Center. Fighting cancer was our priority because it touches so many lives – and because it affects every organ of the body, so many of our researchers could engage in the fight. And patients in our region had to travel too far to reach an NCI-designated center, which offers the most cutting-edge clinical trials.

Fighting cancer was also a high priority at The University of Kansas Hospital, with whom we share a campus, physician-scientists and other resources. This gave us the advantage of being able to link clinical programs with science.

And we were poised for a bi-campus effort, particularly because the University of Kansas School of Pharmacy in Lawrence had invested in state-of-the-art technology to quickly discover and develop new drugs.

There was, however, a problem.
Fighting cancer was now the entire University’s top priority – but in financial terms it was still mostly a dream. Following the Chancellor’s speech, there would be no sudden infusion of research funding or money to build new labs. It would be largely up to us to meet the challenge.

I had come to the University of Kansas Medical Center in 2000 from Philadelphia, a city with four NCI-designated centers. Kansas had none. And very few KUMC faculty had ever led an effort to create an NCI-designated Cancer Center.

We had done the math on what it would take to build an NCI-designated Cancer Center, and we knew that it was going to take a billion dollars. But an analysis provided by the Kansas Technology Enterprise Corporation showed that, 10 years after achieving designation, that initial $1 billion investment would return $1.3 billion to the Kansas economy every year.

It was time to lead.

Focusing on: Strengths and Uniqueness

I understood that the NCI would not award us a designation simply because Kansas didn’t have such a center. We would need to develop a cancer center unlike any other. Fortunately, we had already been building areas of unique expertise.

The University of Kansas Medical Center had been working on cancer since 1969, with the establishment of the first American Cancer Society Professor of Clinical Oncology and financial support from the Kansas Masonic Foundation. During the early 1970s, the NCI awarded us funding to investigate the feasibility of establishing a clinical cancer research center in Kansas. By the 1990s, what was then known as The University of Kansas Cancer Center (KUCC) was experiencing steady growth in terms of funding and pioneering research. Such growth warranted formalizing the KUCC’s research arm as the Kansas Cancer Institute.

Three things would make The University of Kansas Cancer Center unique: 1) our expertise in drug discovery, development and delivery; 2) our strong research in cancer prevention and control; and 3) the development of a community-based approach to cancer research through the creation of the Midwest Cancer Alliance.

To make this vision a reality, we needed a dynamic, experienced leader. In 2004, the Kansas Masonic Foundation made a new pledge to raise $15 million to support cancer research over five years. That allowed us to recruit our Center’s first full-time director, Roy A. Jensen, MD, a nationally recognized breast cancer researcher and pathologist from the NCI-designated Vanderbilt-Ingram Cancer Center.

Dr. Jensen’s arrival fulfilled one essential criterion for NCI designation: “The director should be a highly qualified scientist and administrator with leadership experience and institutional authority to manage the center and further its scientific mission and objectives.”

Surely his decision to leave Vanderbilt was made easier by the fact that he was coming home. Dr. Jensen was born in Gardner, Kansas, and earned his bachelor’s degree in biology and Chemistry from Pittsburg State University. Dr. Jensen is also a Mason. Recognizing the
organization’s more than 30 years of support, we renamed our cancer institute the Kansas Masonic Cancer Research Institute.

Dr. Jensen knew he could build on an existing strength, and one of the things that already made us unique.

Some of the country’s top drug developers are working in the Departments of Medicinal and Pharmaceutical Chemistry at the University of Kansas School of Pharmacy – the school is currently ranked number two among all Schools of Pharmacy in National Institutes of Health (NIH) funding and has been within the top five for the past eight years. These drug developers include Jeff Aube, PhD, whose laboratory focuses on the development of new synthetic techniques, total synthesis, and the study of peptidomimetics. The University also had a Center for Drug Delivery Research, directed by Valentino Stella, PhD. Dr. Stella is a world-renowned expert in pharmaceutical chemistry who holds a prized “Development of Dosage Forms and Delivery systems for Antitumor Agents” contract with the NCI. As a result, more than 40 percent of the discoveries from the NCI’s pipeline are made at the University of Kansas. Another asset on the Lawrence campus was the High Throughput Screening Laboratory, which allows researchers at the University to screen large chemical libraries of compounds – a technology more common to the pharmaceutical industry than to a college campus.

Thinking about how to build on this foundation, Dr. Jensen began conversations with Scott Weir, PharmD, PhD, a 22-year veteran of the pharmaceutical industry. In early 2006, Dr. Weir joined The University of Kansas Cancer Center. With $8.1 million from the Kauffman Foundation and a challenge match of $8 million from KU Endowment, we were able to create the Institute for Advancing Medical Innovation, which Dr. Weir now leads. This drug discovery, development and delivery program applies industry best practices, leverages relationships with other institutions and industry partners and demands high performance from highly collaborative project teams.

We had succeeded in creating one of the three elements that will make us unique among NCI-designated Cancer Centers.

Another unique element is the strength of our cancer control and population health program, particularly as it relates to minority and rural populations. We have numerous community-based research projects focused on health disparities. University of Kansas Medical Center researchers are currently investigating enhanced treatment for tobacco use among African American smokers; disease management of smoking in rural primary care; and implementation of the “Health for All” model within the Latino community of Kansas City.

We are especially proud of our success with a smoking-cessation program designed for American Indians. The All Nations Breath of Life program, created in collaboration with the Native community, recognizes and respects that tobacco is a sacred plant to many American Indians and that ceremonial use is entirely different from recreational use. This month, the researchers at the forefront of this work will announce a $7.5 million NIH grant to establish a Center for American Indian Community Health. In collaboration with
other community partners, KUMC will lead a study of tobacco use, diet and exercise among tribal college students. The grant will also help set up a pipeline to attract American Indian high school and college students to the KU School of Medicine’s Masters of Public Health degree program and to careers in public health, working with Haskell Indian Nations University.

The third aspect that makes our cancer center unique is the development of a community-based approach to cancer research through the creation of the Midwest Cancer Alliance. In 2007, we formed The Midwest Cancer Alliance to bring cutting-edge clinical trials, the latest prevention and screening tools and continuing education opportunities to a region-wide network of hospitals and health care organizations. From the Goodland Regional Medical Center near the Colorado border to the Children’s Mercy Hospitals and Clinics in downtown Kansas City, Missouri, we wanted to advance the quality and reach of cancer prevention, early detection, treatment and survivorship methods.

Leading this effort is Gary Doolittle, MD, another native Kansan with deep connections to the rural parts of our state. People throughout the state have great affection for Dr. Doolittle, who brings health care to remote places in Kansas via telemedicine, twice-a-month trips to conduct an oncology outreach clinic at Hays Medical Center in western Kansas and monthly visits to the Horton oncology outreach clinic in the Northeast corner of the state.

Strong in the knowledge that our Cancer Center is distinguished by these three unique and valuable elements, we proceeded to tell our story over and over again as we set about finding the resources necessary for NCI designation.

**Focusing On: Telling the Story and Gathering the Resources**

When you have to raise a billion dollars, you absolutely must keep your whole community focused on your strengths and successes.

Some community leaders were already behind us, thanks to our strong presence in a report on economics and education. In early 2005, knowing that Kansas City’s future was threatened by a host of serious urban problems, the Greater Kansas City Community Foundation commissioned a blue ribbon task force of nationally recognized leaders to recommend ways the metro could transform itself and become competitive in the new, global knowledge economy. This task force was led by Benno Schmidt, Jr., PhD, chairman of the City University of New York and of the Edison Schools board, and a former president of Yale University. Dr. Schmidt was joined by a diverse group of national thought leaders who met with hundreds of people and exhaustively studied the region’s colleges, universities and statehouses. Having spoken with Dr. Schmidt, I was not surprised when his panel’s unflinching report concluded that KU Medical Center would play a crucial role in saving the life of a city. “KUMC is the only academic enterprise in Kansas City with the current capacity to generate a high quality and broad scope of basic research activity in a reasonable time with a high probability of success,” he wrote in *Time to Get It Right*. The panel ordered Kansas City’s business, philanthropic and political leaders to pour
hundreds of millions of dollars into our effort.

We were also fortunate to have strong leadership from former Kansas Governor Kathleen Sebelius. Gov. Sebelius, a Democrat, was elected governor in November 2002. She had been active in insurance reform, having served as Kansas’s insurance commissioner and as a member of the state legislature. She cared deeply about health issues, as was clear when President Barack Obama appointed her Secretary of Health and Human Services (HHS) in 2009. During the 2006 session of the Kansas Legislature, Gov. Sebelius included in her budget for fiscal year 2007 an additional $5 million to support the development of the KU Cancer Center, highlighting the request in her “State of the State of Kansas” speech at the beginning of the session. With significant bipartisan support, legislators approved the appropriation.

Gov. Sebelius continued to include this appropriation in subsequent years, which kept our efforts highly publicized. Kansas lawmakers continued to approve our $5 million appropriation each year since. Even during this time of declining revenues and painful cuts elsewhere, Kansas lawmakers understand the enormous potential for return on investment in the knowledge economy. After Gov. Sebelius left to lead HHS, her successor, Gov. Mark Parkinson, continued to support the cancer center appropriation. Moreover, he made the cancer fight easier by pushing for the Kansas Clean Indoor Air Act, which passed this year.

State lawmakers also endorsed one of the more visible signs of our quest. In 2007, State Senator Barbara Allen pushed for legislation to create a license plate to support breast cancer research and outreach efforts across the state.

Perhaps our most surprising show of public support came during the summer of 2008. In the midst of a heated presidential campaign, supporters of the University of Kansas and Kansas State University – who are usually rivals – made a unified push to pass a 1/8-cent sales tax to support education and research in Johnson County, Kansas. I cannot overstate the significance of this election. In Johnson County, registered Republicans outnumber registered Democrats nearly 2 to 1. This is presumably an anti-tax crowd; moreover, an economic crisis was looming. Still, we found allies in the most unexpected places. For example, State Senator Karin Brownlee, a Republican from Olathe who generally opposes taxes, agreed to be an honorary co-chair of this sales tax campaign.

On November 4, 2008, 57 percent of the voters agreed to help pay for our work. Revenues from the tax will generate $5 million a year – in perpetuity – for our Clinical Research Center, where we will conduct early-stage clinical trials of drugs in our pipeline.

Additional extraordinary leadership and support has come from the Kansas Bioscience Authority (KBA), created in 2004 with a state commitment of $581 million to help build world-class research capacity, encourage bioscience startups and expand and attract bioscience industries in Kansas.

Directed by Tom Thornton, who had previously served as president and chief executive officer of the well-regarded Illinois Technology Development Alliance, the KBA has played a pivotal role in the development of the animal research corridor from Manhattan, Kansas to
Columbia, Missouri. The KBA led the effort to secure the National Bio- and Agro-defense Facility (NBAF), a government-run research facility that will develop countermeasures to combat high-consequence biological threats involving human, zoonotic, and foreign animal diseases. Over a 10-year period, the KBA has committed more than $41.4 million to the Cancer Center NCI designation efforts. This money has funded basic research and clinical trials, allowed us to invest in technologies that expand drug delivery capabilities, significantly enhanced our ability to recruit talented researchers through their eminent scholar and rising star programs, and bankrolled major construction to create state-of-the-art laboratories.

We couldn’t just focus on successes, though. We had to solve some real problems.

Focus On: Overcoming Obstacles

At this particular moment, the area’s civic and political leaders were acutely aware of the need to ensure a friendly environment for scientific research.

Just five years earlier, cancer survivors Jim and Virginia Stowers had donated $2 billion to create the Stowers Institute, the country’s second-largest privately endowed institute for basic medical research. When some Missourians led an effort to ban early stem cell research, the business community joined with scientists, religious leaders, medical professionals and citizens to campaign for a constitutional amendment protecting such research. Missouri voters passed that amendment in November 2006.

Many of these same leaders also joined us to defeat a bill in the Kansas Legislature that would have banned early stem cell research. In March 2005, I testified before lawmakers to warn them that if they passed the bill, scientists wouldn’t want to come to Kansas. It was risky to speak up in that way, because the Kansas Legislature is often conservative and controls a significant portion of our budget. But it was a bigger risk not to testify. I focused on the scientific and educational aspects of the issue rather than the politics. I also gave well over a hundred “Stem Cell 101” education sessions to policymakers and interested citizens. As it turned out, we had strong support in the legislature and from the Governor.

Still, despite all of the external momentum and support, internally not all of our department leaders understood how the focus on cancer designation would benefit them. We encountered resistance when we had to cut departmental budgets at the same time we were raising philanthropic dollars to recruit cancer researchers. Though the entire university system was enduring painful budget cuts, we needed to continue investing in the Cancer Center efforts. This internal effort required a different kind of focusing. Within the first two years of our quest, I replaced six of the department chairs. By the third year, all but five of our 25 departments had new chairs.

Our plan also required us to create partnerships with hospitals throughout the region. After long, hard discussions, we reached affiliation agreements with numerous hospitals, including a crucial agreement that strengthened our relationship with The University of Kansas Hospital.
Lessons of Leadership: Recruitment, Progress and Accountability

I will end by highlighting just three of the lessons that stand out from the many we have learned while trying to create an NCI-designated Cancer Center at the University of Kansas Medical Center.

First, recruiting is key and takes precedence.

Our key hire was Dr. Jensen. But we also made early mistakes. We hired a renowned lung cancer specialist as our Cancer Center’s deputy director, but that didn’t work out. That recruitment failure set us back two years.

Early in the process, we recruited junior faculty – they were promising but did not yet have NCI funding. We learned to be more strategic in our recruiting, and began hiring researchers who would bring their NCI funding with them.

And we learned that we can’t expect Dr. Jensen to do everything. As the Cancer Center’s director, Dr. Jensen had done the critical work of educating the public, which resulted in the widespread support that has sustained our mission and momentum. But we were slow in the equally critical aspect of recruiting world-class researchers to fill key leadership posts.

Eventually we hired a search firm to speed up the recruiting. That might be unheard of in the world of academic medicine – but we have now begun to fill those crucial posts.

Second, recruiting takes incredible resources and enormous collaboration.

In addition to the funds and space committed to this effort by the University – both from the Medical Center and Lawrence campus – we have benefited from the significant resources provided from The University of Kansas Hospital.

Key recruits such as Parvesh Kumar, MD, were made possible with the help of the hospital and its philanthropic gifts. The state of Kansas, the Kansas Bioscience Authority and the voters of Johnson County, who approved the tax for the research triangle, have all provided necessary funding. The Kansas congressional delegation provided needed resources through specific Cancer Center earmarks, which have been aimed at purchasing cancer research equipment. And we are indebted to the numerous philanthropic supporters who have contributed money and time to champion our mission. The pace of fundraising has increased even in difficult economic times.

Even with the many recent recruitment successes on both the Medical Center and main campuses, we still have a few key leadership positions to hire. The total estimated cost of five-year recruitment packages for a deputy director and associate directors of cancer prevention and control, translational research and basic sciences is $18.8 million. Recruitment is expensive, but it is one of the most critical aspects of our NCI designation application package.

The good news is that we have candidates in the pipeline for all of these leadership positions, and are working diligently and creatively to find the resources necessary to bring these cancer physicians and scientists to our region. The Kansas Bioscience Authority’s support has been crucial to our recruitment efforts.

Finally, with so much investment at stake, we have learned that tracking our progress and being accountable to our collaborators is crucial. Sharing our successes and setbacks has helped to build trust among the various stakeholders –
local communities, policymakers, the media and our own faculty.

The NCI has invited us to apply as early as September 2011. A recent report from our External Advisory Board applauds our successes to date – but also suggests that we may need to be flexible in our application date. Given our momentum, however, we intend to stay the course. In fact, we are picking up the pace as we move toward the 2011 submission date.

Earlier this month, we were among the sponsors of a town hall meeting on the new role of academia in drug development and discovery. Along with the Friends of Cancer Research, the Kauffman Foundation, the Kansas Bioscience Authority and the Council for Advancing Medical Innovation, we hosted a well-attended meeting of the minds. HHS Secretary Sebelius gave the keynote speech, and NIH Director Francis Collins, MD, PhD, and Food and Drug Administration Commissioner Dr. Margaret Hamburg, MD, participated in a panel on how to speed up the process of taking drugs from bench to bedside. Our model was among the examples of how it can be done.

Although the lessons I have shared with you today outline the importance of resources, recruiting and accountability, it is important to keep in mind our end goal, which has guided us from the beginning.

Yes, achieving NCI designation could create to 9,400 new jobs for the state, pump $1.3 million dollars into our state’s economy and almost double the amount of grant dollars for KU Cancer Center researchers. It would certainly bring a great deal of prestige to the University of Kansas. But most importantly, it would mean our families, friends and residents could stay in Kansas to get the highest quality cancer care in the country.