2013 Cancer Registry Annual Report





SERIOUS MEDICINE. EXTRAORDINARY CARE.\*



Aaron R. Sasson, MD Surgical Oncologist Nebraska Medicine Professor, University of Nebraska Medical Center

Aaron R. Sasson, MD

### **Cancer Committee Chair Report**

The 2013 Annual Cancer Report highlights significant advances and contributions made by our cancer center providers at Nebraska Medicine. We continue to lead the way with cutting edge technology and extraordinary patient care. Our ability to deliver patient care and offer promising clinical research, is what attacks patients from Nebraska, the Midwest, across the United States as well as overseas to seek care at Nebraska Medicine. We were once again recognized by US News & World Report as a top center for cancer care. We are determined to continue to strive for excellence with the development of new programs and the building of new facilities.

In this report you will see an update regarding construction of the Fred & Pamela Buffett Cancer Center. This complex will include research facilities, outpatient clinic and a hospital dedicated to the care of cancer patients. This will be a state-of-the-art center that will greatly enhance our ability to care for our cancer patients. In addition to moving forward, we also look back at our tremendous success in the field of bone marrow transplantation. This life-saving treatment option was pioneered here at Nebraska Medicine and currently used around the world.

We also highlight our approach in the management of lung cancer, the number one leading cause of cancer deaths in Nebraska and the United States. We are attacking the problem on multiple fronts:

- 1. In the area of prevention with smoking cessation.
- 2. In advances of treatment with surgical resection, radiation therapy and chemotherapy.
- 3. By using scientific advances developed at Nebraska Medicine to help future patients with lung cancer.

We are also pleased to report that **Julie Vose, MD**, chief of Medical Oncology, has been elected to serve as the president of the American Society of Clinical Oncology, a prestigious honor for her tremendous accomplishments in the field of oncology.

On behalf of the Cancer Committee, I am pleased to present the 2013 Annual Cancer Report.

Sincerely,

Aaron R. Sasson, MD Professor Chief of Gastrointestinal Surgical Oncology



# FRED & PAMELA BUFFETT CANCER CENTER

# Fred & Pamela Buffett Cancer Center Update

The University of Nebraska Medical Center (UNMC) and Nebraska Medicine announced on May 3, 2013, that the new cancer center complex will be named for Fred and Pamela Buffett in recognition of a gift from Pamela Buffett, through her foundation, the Rebecca Susan Buffett Foundation, to the University of Nebraska Foundation. Pamela's husband, Fred "Fritz" Buffett, died in 1997 after fighting kidney cancer. Fred and Warren Buffett were first cousins.

"We could not be more grateful to Pamela Buffett for her monumental gift," UNMC Chancellor **Harold M. Maurer, MD**, says. "This is truly a transformational project that will enhance our international reputation and elevate our cancer program to a whole new level."

"Fritz fought a courageous cancer battle until the very end," says Omaha philanthropist Susie Buffett. "It is truly exceptional for Pamela to make this gift in his honor, for the benefit of potentially thousands upon thousands of cancer patients worldwide. These patients will benefit from the research advances that will be developed here, as well as the outstanding patient care that will be delivered."

The design of the new cancer complex will integrate the offices for cancer researchers and clinicians in order to maximize interactions and facilitate the transfer of scientific discoveries from the laboratory into new treatments for patients.

"The Fred & Pamela Buffett Cancer Center will allow the brightest minds in cancer research and care to collaborate on finding tomorrow's cures, developing treatments for each patient based on their unique characteristics," says Kenneth Cowan, MD, cancer center director. "In this facility, medical scientists will discover the next generation of cancer therapies targeted toward molecular changes in tumors, resulting in a treatment regimen individualized for each patient."

The state of Nebraska, the city of Omaha and Douglas County have pledged \$90 million to the Fred & Pamela Buffett Cancer Center project making this the largest public-private partnership in the history of the state of Nebraska. With a state population of only 1.7 million people, the public commitment to the Fred & Pamela Buffett Cancer Center amounts to \$53 per Nebraskan.

Private donors also have shown great support for the project, says Mike Yanney, co-chairman of the UNMC committee of the University of Nebraska Foundation's Campaign for Nebraska: Unlimited Possibilities. "Pamela Buffett's gift is extraordinary and reflects the tremendous support for this project. The Fred & Pamela Buffett Cancer Center is another example of the tremendous public private partnerships from which many worthwhile Nebraska projects have benefitted."

(continued on page 3)

# Fred & Pamela Buffett Cancer Center Update (continued)



In all, the project will provide 4,657 new jobs to the metro area, infusing \$537 million annually into the economy. Last year, cancer center leaders and hospital staff visited several NCI designated cancer centers to review recently completed facilities and over the past nine months over 200 faculty and patients have been working with HDR, Inc. architectural designers to develop plans for the new Fred & Pamela Buffett Cancer Center.

Ground breaking was held May 7, 2013 by the UNMC and Nebraska Medicine. At the event, major donors to the project were announced including:

CL Werner Cancer Hospital – A gift from the CL Werner Foundation will name the hospital tower the CL Werner Cancer Hospital. CL Werner, honorary chairman of the CL Werner Foundation Board, says he is honored to support this project which will benefit so many people in the community, state and nation, today and for generations to come. "I am proud the cancer hospital is in Omaha and hope everyone shares my excitement about this state-of-the-art initiative," he adds. "It is my sincere desire this unprecedented collaboration will help alleviate suffering and offer hope to individuals and their families who are dealing with a cancer diagnosis." Werner serves as chairman emeritus of Werner Enterprises, Inc., one of the largest truckload motor carriers in the nation. Today, the company maintains its global headquarters in Omaha with offices throughout North America and China. Werner founded the company in 1956 with one truck at the age of 19.

Suzanne and Walter Scott Cancer Research Tower – The research tower will be named the Suzanne and Walter Scott Cancer Research Tower, thanks to a gift made by the Suzanne and Walter Scott Foundation. Suzanne and Walter Scott Jr. are well-known Omaha philanthropists and active in community affairs. Currently, Walter Scott serves as chairman of the Board of Policy Advisors for the University of Nebraska Peter Kiewit Institute, Heritage Services and the Omaha Zoological Society, among other leadership roles. Suzanne Scott is a director of the Omaha Zoological Society and a former director of numerous community organizations including the Joslyn Art Museum, Salvation Army and United Way of the Midlands. "Sue and I like to invest in excellence," says Scott, chairman of the Board of Level 3 Communications and chairman emeritus of Peter Kiewit Sons, Inc.

"This project, and its vision for a new era in fighting cancer, again shows Nebraskans what a treasure they have in our med center. "We greatly appreciate these significant investments in the cancer center," says University of Nebraska President James B. Milliken. "CL Werner has been a strong advocate for this project from the beginning and he recognizes its potential to improve the lives of cancer patients and their families. Walter and Sue Scott's gift will transform cancer research and bring together the best minds in the country in the search for a cure. We are deeply indebted to the Werner Foundation and the Scott Foundation for their gifts."

The Fred and Pamela Buffett Cancer Center will be constructed on the site of Swanson Hall (Dewey Avenue and Durham Research Plaza). Demolition of the Swanson Center will begin July 2013 and completion of the Fred and Pamela Buffett Cancer Center is planned for 2016.

As of today, over \$400 million has been raised for the construction of the Fred and Pamela Buffett Cancer Center and UNMC Chancellor Maurer and Yanney have announced the start of a \$100 million campaign for program development in the Fred & Pamela Buffett Cancer Center. In addition, UNMC Chancellor Maurer and Nebraska Medicine CEO Glenn Fosdick have committed \$10 million this year for faculty recruitment to the Fred & Pamela Buffett Cancer Center.



"ASCO is a very diverse and multifaceted organization with so much to offer its membership. I am excited to serve the ASCO membership as president and to make a difference for oncology professionals and our patients."

- Julie Vose, MD

# Julie Vose, MD, to be ASCO President

### Term to Begin June 2015

Oncologist **Julie Vose, MD**, has been elected president of the American Society of Clinical Oncology (ASCO) for a one-year term beginning in June 2015. Dr. Vose will take office as president-elect during the ASCO annual meeting in Chicago in June 2014.

"ASCO is a very diverse and multifaceted organization with so much to offer its membership," Dr. Vose says. "I am excited to serve the ASCO membership as president and to make a difference for oncology professionals and our patients."

Dr. Vose cited the recent enhancements in the society's educational offerings, quality improvement and broadened advocacy as areas where her experience and training can add to the current ASCO activities, including CancerLinQ(TM), ASCO's groundbreaking health information technology initiative to achieve higher quality, higher value cancer care with better outcomes for patients.

**Ken Cowan, MD, PhD**, director of the Fred & Pamela Buffett Cancer Center, calls the election a great honor for Dr. Vose and UNMC. "She is an internationally recognized leader in clinical trials in lymphoma," he says. "As the leader of the largest organization of clinical oncologists, she will be able to have a major impact on the future directions of clinical research and clinical care in cancer."

Dr. Vose's election and involvement in ASCO and other national oncology organizations are a credit to UNMC as well as Dr. Vose, says **James Armitage, MD**, Joe Shapiro Professor of Internal Medicine in the Division of Oncology/Hematology.

"I'm incredibly proud of Julie and what she's accomplished," Dr. Armitage says. "This is the most visible and one of the most important oncology positions in the world. It reflects her excellence in clinical medicine and research."

Dr. Vose is the associate director of clinical research and co-chair of the lymphoma program at the Fred & Pamela Buffett Cancer Center. Since joining ASCO in 1991, she has served on the board of directors, as chair of the Cancer Education Committee and is the current chair-elect of the Integrated Media and Technology Committee, among other activities.

ASCO's board of directors is comprised of oncology leaders who are elected to positions reflecting various specialties within the oncology field.



# Light the Night Team Raises \$9,339 (Oct. 24, 2013)

### **Proceeds to Help Fund Cancer Treatment and Therapies**

A parade of supporters wearing twinkling lights marched on Werner Park the evening of Oct. 17 in honor of the Leukemia & Lymphoma Society.

The Fred & Pamela Buffett Cancer Center served as this year's Silver Sponsor for the Light the Night Walk. In total, the team contributed \$9,339 which will help to fund therapies and treatment advances for blood cancer patients.

Sue Schreiner, manager of Fiscal Outcomes and Operations Cancer Services and Light the Night Walk team captain, was pleased with the turnout.

"It was fun to see enterprise-wide participation," Schreiner says. "Working with our cancer population, I see the impact organizations like the Leukemia & Lymphoma Society have on patients and their families. I am just happy so many came out to support our team."

The Fred & Pamela Buffett Cancer Center team was joined by Decreasing the Donor Deficit (DDD), a UNMC student organization. Volunteers assisted potential donors with DNA swabs and paper work which is then sent to the National Marrow Donor Program, Be the Match. With their efforts, 43 new people were added to the national registry.



Forty-three Light the Night participants also signed up to be included on the National Marrow Donor Program registry.

"I am thrilled to say we exceeded our registration goals," says Ali McCabe, DDD president. "Light the Night Walk was a great opportunity for us to reach out to the community and spread the word about the importance of donor registration."



Ann Kessinger, MD

### Physician's Curiosity Changed Transplants Around the World

May 2013 marked the 30th anniversary of our Bone Marrow Transplant Program. Our oncologists and researchers have led the way over the years developing new methods and procedures to fight blood cancers. We will highlight a few of the trailblazing efforts made at Nebraska Medicine and UNMC.

They said it couldn't be done. But oncologist **Anne Kessinger, MD**, paid no mind.

In 1981, bone marrow transplants were just beginning to be used to treat some blood cancers, such as lymphoma and leukemia. In some cases it helped provide a cure. But, for patients whose cancer had invaded the bone marrow, there were no options.

Dr. Kessinger wanted to know if there was another way of collecting stem cells derived from the blood of patients. At the time, the only way to collect stem cells from the bone marrow was to put the patient under general anesthesia then insert a long needle into the hipbone 100 or more times until enough stem cells were collected to perform a transplant.

Dr. Kessinger felt there had to be an easier and less painful way. She knew peripheral blood stem cell transplants were successfully used in animal models as early as the 1930s and common sense told her that it also could work in humans.

With the help of the Omaha Division of the American Red Cross, Dr. Kessinger and her colleagues figured out a way to collect the cells through a special process called apheresis – through veins in the arm, much like donating blood. The process was effective and enabled the use of peripheral blood stem cell transplantation in humans. The therapy provided an alternative and is now standard practice around the world.

The first peripheral blood stem cell transplant at the medical center was performed June 6, 1984.

When Dr. Kessinger published the results of the clinical trial she conducted with 10 patients, her article was questioned by the medical community. Her colleagues around the world thought she had either fabricated results or misinterpreted them. At first, the medical journals would not accept her reports.

She eventually proved to the world that her data was correct, conventional dogma was wrong and peripheral stem cell transplantation could work.



# Celebrating 30 Years of Transplant

As we look back more than 30 years since the first bone marrow transplant was performed here, the breakthroughs and achievements are numerable. Some include:

- The adult transplant program, founded by Kearney, Neb., native, **James Armitage, MD**, performed its first bone marrow transplant on April 1, 1983.
- The pioneering of stem cell transplantation in 1984 by **Anne Kessinger, MD**, of Scribner, Neb. The therapy is now standard practice around the world.
- The launch of the pediatric transplant program in 1987 by Peter Coccia, MD.
- An array of impactful clinical studies and drug trials.

Since its inception, the program has performed 4,460 transplants in patients from all 50 states and more than a dozen countries – 4,043 transplants in adults and 417 in children. Most adults have sought the treatment for cancers of the blood; in particular, lymphoma, leukemia and multiple myeloma. Pediatric transplants normally are performed for patients with more aggressive diseases such as acute lymphoblastic leukemia.

"We have an extraordinary team dedicated to improving cancer treatment and care. Their work has increased survival substantially in patients," says **Julie Vose, MD**, chief of the UNMC Division of Hematology/Oncology and the Neumann M. and Mildred E. Harris Professor. "Through the efforts of many, people now have access to some of the best cancer treatment in the world right here in Omaha."

The medical center's expansive cancer research program has been responsible for advancing knowledge and treatments, says Dr. Vose, who is a physician on staff at Nebraska Medicine. Researchers receive funding from a variety of sources, including the National Institutes of Health and collaborate with some of the top cancer centers in the world such as MD Anderson Cancer Center, Dana-Farber Cancer Center and others.

"We learn through our encounters with patients and our clinical trials," Dr. Vose says. "Our experience not only helps our current patients but also will help future patients five or 10 years down the road. We're excited to take the next step to advance our work for better treatments and improve the quality of life for those with cancer".

(continued on page 8)



# Celebrating 30 Years of Transplant (continued)

### **Through the Eyes of Providers and Patients**

With achieving the milestone of performing stem cell transplants for 30 years, we asked providers and patients some questions about their experiences:

"What have you learned from your patients about medicine and the field of transplantation?"

"It's hard for me to express my admiration for the way our patients put their faith and trust in us. They are going through a bad period in their lives, but they are invariably kind and gracious. They are understanding, even when they get bad news or when we answer their questions with, 'I don't know.' Our patients rarely complain, no matter how bad they feel or how serious their condition is. I know this is what makes me and my colleagues enjoy doing what we do."

#### Philip Bierman, MD - professor, Internal Medicine

"We travel a remarkable road with all of our patients. We often meet them at a time of fear and vulnerability, we get to know who they are and why they chose us. We get to meet their family members and learn about dreams and lives put on hold. We develop a relationship built on trust and security. We take them on a road that literally often puts their lives in our hands. One day we look up in clinic and realize it might be the fifth, 10th or 20th anniversary of their transplant. We see a life lived because of the wonderful combination of science and human compassion." **R. Gregory Bociek, MD, associate professor, Internal Medicine** 

### What has it meant to you to be part of the transplant program?

"Being a part of the transplant program has been the most rewarding experience of my career at the medical center. It has been an honor to be a part of a team that has made a commitment to patients to deliver state-of-theart compassionate transplant care. I never imagined I would have the privilege of working with so many talented individuals who have made an impact on so many professional and personal lives. What an incredible journey." **Theresa Franco, executive director Cancer Care Service Line** 

"I am proud to say I've been here since the first bone marrow transplant. I am thankful to have been a part of a remarkable medical team which has, over the years, provided extraordinary care for the most amazing patients and their families. I will never forget the people who selflessly gave their lives and bodies to help us gain the knowledge to improve our processes and therapies for the next individual with cancer to receive a transplant or intensive therapy."

#### Theresa Woodrum, manager, Oncology Hematology Special Care Unit

(continued on page 9)

# Celebrating 30 Years of Transplant (continued)

### Through the Eyes of Providers and Patients (coninued)



"Having a transplant gave Kipton a second chance at life. Without the transplant, I don't know that he would still be here with us. The chemo wasn't enough to rid his body of cancer. Every day I look at Kipton I think of his donor, the young woman we hope to someday meet. Kipton's transplant gives us the hope that he can live a full life and a healthy life. It allowed us to be hopeful for tomorrow!" **Kipton Krumland and mom, Erin, of Eagle, Neb.**,



"I was having a chemo treatment the day that Dr. Armitage came to see me. For the first time in my treatment for non-Hodgkin lymphoma, I heard the word cure! I was 34, the future was not bright and by the time I drove home, I decided to 'go for broke,' all or nothing - but God gave me everything! In the 30 years since the inception of the Bone Marrow Transplant Program, I believe that God "touched" the doctors who created the program, the doctors who implemented the program and the doctors and researchers who are continuing the program! I am now 64! It gave me 30 extra years of life!"

#### Nancy Wurtele, Nebraska City, Neb., second patient to receive a transplant



"Our oncologist, at another hospital, worked with us in reviewing research on multiple myeloma and recommended a stem cell transplant. He referred us to Dr. Vose. After prayer and careful consideration, we had the procedure in February 2010. The transplant saved my life! We have a quality of life that would not have been realized without the collaboration of the oncologists in providing current treatment based on research about transplantation and maintenance pharmacology. Dr. Vose and staff, may you continue to provide excellent client-centered care using the evidence to support quality of life for all patients living with a diagnosis of cancer."

Robert Blanchard, transplant recipient and wife Shirley, Omaha, Neb.





### More Than 400 SMAC! Monkeys Delivered to Cancer Patients

### **Omaha Woman Brings Sock Monkeys to Life to Honor Her Mom**

Omaha social entrepreneur Jennifer Windrum delivered more than 400 SMAC! monkeys to our cancer patients Aug. 23. SMAC!, which stands for "Sock Monkeys Against Cancer," is a philanthropic group whose purpose is to comforts those with or impacted by cancer – reminding them no one fights it alone.

Creation of the SMAC! monkeys was inspired by Windrum's mom's journey with lung cancer. She knew her mother, Leslie Lehrman, would likely die from the Stage IV lung cancer. As the disease ran its agonizing course, Windrum learned that cancer can be a very lonely existence. Family and friends can't always be there. Her mom lived more than 1,200 miles away, which made her appointments, tests, scan results and treatments that much harder for the both of them.

Windrum was determined to do something to ease that loneliness for her mom and for other cancer patients like her. "That's why I created SMAC!," said Windrum. "I wanted to give mom a buddy she could hug to remind her that I'm with her."

Right now, there are two different SMAC! Monkeys. NoMo – the ALL cancer-fighting SMAC! monkey and Phoenix – the lung cancer-fighting SMAC! monkey. Windrum's dream is to create a custom monkey for each type of cancer.

Many times, Windrum's mom took her SMAC! monkeys with her to treatments and appointments as well as to the couch for some much needed snuggle time.

"It's hard for me to describe how my boys (NoMo and Phoenix) make me feel," recalled Lehrman, before she passed away last year. "I look into their little eyes and they just make my heart melt. It may sound silly, but when I get up, I say 'good morning' to them too. They make me happy... even on my darkest days."

Windrum raised more than \$35,000 online to bring the SMAC! monkey line to life. During the campaign, those who pledged financial contributions had the option to keep their SMAC! monkey(s) or give them to a cancer patient. Many chose to give away their monkey(s), resulting in 431 SMAC! monkeys going to current and future cancer patients at the medical center. Staff will offer to photograph patients with their SMAC! monkeys and share the photos with donors who made the effort possible.

"These little guys will be so helpful for current and future patients," says Theresa Woodrum, manager, Oncology Hematology Special Care Unit. "To know they have the support not only of their family and their caregivers, but also the support of people they've never met means a great deal at such a trying time."

"I absolutely cannot wait to deliver the SMAC! monkeys and put my mom's legacy in motion, says Windrum. "I so hope they bring the same level of comfort to others as they did my mom. This was my mom's wish too." Click to learn more about the SMAC! Monkeys.



Jill Selzle, PA-C

### **Smoking Cessation**

### **Tobacco Dependence Clinic Helps Smokers Quit**

Smoking continues to be the leading cause of preventable death and disease, taking the lives of an estimated 480,000 Americans annually. It has been found that combined cognitive behavioral therapy and pharmacotherapy, when used in combination can double or triple the quit rates of patient's attempting to quit smoking. Plans are in progress for the UNMC Tobacco Dependence Clinic to open in early 2014. In response to the need arising from our lung cancer screening program and to provide the best care for existing patients, it was felt that resources and opportunities should be available to any and every patient who is ready to make a quit attempt.

This new clinic will be staffed by **Jill Selzle PA-C**, who received training and designation as a certified tobacco treatment specialist from the Mayo Clinic in Rochester, Minn. Certified tobacco treatment specialists are professionals who are specifically trained to provide treatment for individuals seeking to stop the use of tobacco. Training entails understanding the science behind the addiction, withdrawal symptoms and effective treatments. Persons with CTTS designation are able to help patients develop individualized treatment plans and strategies including: effective and practical behavioral techniques and recommendations regarding medications and potential side effects.

The program will be available to any patient wishing to pursue abstinence. Clinic times will be available on Tuesday afternoons at the main campus and Thursday afternoons at the Village Point Cancer Center. For an appointment, call the Thoracic Surgery Office at 402-559-4389 and ask for a Tobacco Dependence Clinic appointment time. The benefits of quitting smoking occur within minutes to hours after stopping...now is the time to quit!



### Lung Cancer Research Program Making Strides

Nebraska Medicine/UNMC's lung cancer research program is growing.

A decade ago there were clinical trials for lung cancer patients at Nebraska Medicine, but the research enterprise was not what it could have been.

"Today," says **Apar Ganti, MD**, associate professor of internal medicine, oncology and hematology, "we have a number of researchers across the campus who are engaged in lung cancer research that encompasses the spectrum, including basic science, translational research, clinical research and patient-based research."

#### Some areas of emphasis include:

- Clinical research which has included extensive publication on outcomes from lung cancer in older patients and those who cannot tolerate standard therapy, led by Dr. Ganti and **Anne Kessinger, MD**, professor of oncology and hematology.
- A grant from the Affordable Care Act-devised Patient-Centered Outcomes Research Institute that focuses on patient satisfaction from chemotherapy in stage four lung cancers. Research will help patients and medical practitioners make better decisions on treatment options. **Monirul Islam, MD, PhD**, assistant professor of epidemiology in the College of Public Health, serves as principal investigator.
- Research on MUC4 and other mucins and their roles in early-stage lung cancer by Dr. Ganti and Surinder Batra, MD, professor and chairman, Department of Biochemistry and Molecular Biology. Some promising preliminary research has been published in the April 2013 Journal of Thoracic Oncology. This work is supported by a Career Development Grant to Dr. Ganti from the Department of Veterans Affairs.
- **Karin Trujillo, MD**, assistant professor of cardiovascular and thoracic surgery, is leading the effort to develop a lung cancer registry, tumor bank and tumor registry.
- Development of a lung cancer screening program at Nebraska Medicine. This effort is being spearheaded by **Rudy Lackner, MD**, professor of cardiovascular and thoracic surgery.
- The Batra and Ganti labs are currently developing new spontaneous animal models for lung cancer.



### Lung Cancer Screening Program

Lung cancer is the leading cause of cancer death in both men and women in the United States and has been closely associated with smoking for nearly 50 years. Between 80 and 90 percent of the lung cancer cases are a result of smoking.

It is difficult to diagnose lung cancer early because most people initially lack symptoms that warrant medical attention. It's not until the disease has progressed, do symptoms such as persistent cough, chest pain, shortness of breath or recurring infections begin to appear. The most common diagnostic test has been X-rays, which are inadequate at picking up lung cancer at an early stage.

When identified in an early stage, lung cancer has a 90 percent cure rate. The lung cancer screening offered at Village Pointe Cancer Center is a low-dose computed tomography (CT) scan. This particular screening is only recommended for high-risk populations.

#### Those considered at high risk are:

- Smokers and former smokers
- At least 50 years old
- 20-pack history, smoking one pack each day for 20 years or two packs each day for 10 years

### Lung Cancer Screening Plan

Once a patient has opted into a screening program, it is recommended they receive yearly low-dose CT scan of the chest area until the age 74. Chest X-rays do not qualify as an acceptable screening option. By participating in the lung cancer screening program at Nebraska Medicine, patients have access to a multidisciplinary team of physicians who have specialty training and are skilled in evaluating, diagnosing and treating abnormal lung lesion. Current smokers are encouraged to consider entering a smoking cessation program. Receiving yearly scans will not decrease the risk of developing a lung cancer. Screenings should not be considered as an alternative to smoking cessation.

If CT scan results are negative and no abnormalities are found, patients are informed of their results within two business days and receive a letter within 7-10 business days containing the results and a recommendation for an annual low-dose CT scan based on screening guidelines. If the CT scan shows an abnormality, the patient is contacted by a nurse who will help schedule an appointment with a thoracic surgeon within 7-14 days. If other conditions are found incidentally on the CT scan, the patient and their primary care physician are notified.

#### Introduction:

Another year has passed and during that time another 224,210 patients were diagnosed with lung cancer. That figure represents 13.5 percent of all cancer diagnoses for that time frame. Lung cancer continues to be the number one cause of cancer deaths in the US for both men and women. Overall, almost 160,000 people died from this diagnosis and this represents over 27 percent of all cancer-related deaths. For women, deaths from lung cancer are greater than those for breast, ovarian, uterine and cervix combined.

#### **Etiology and Risk Factors:**

Tobacco abuse remains the leading cause of lung cancer, although in women, 15-20 percent of lung cancer cases are occurring in lifelong non-smokers. Second and third-hand tobacco exposure play a role in those who are non-smokers but develop lung cancer. Other environmental factors, including radon exposure, have been implicated in the development of lung cancer. All patients with chronic lung diseases including emphysema and pulmonary fibrosis appear to be at increased risk for developing lung cancer. Lung cancers are often discussed in terms of small cell (SCLC) and non-small cell (NSCLC), included in the latter group are those with adenocarcinoma, squamous cell cancer and large cell neuro-endocrine histology.

#### Symptoms:

Unfortunately for many patients, by the time they experience symptoms from their lung cancer they may already have an advanced stage of disease. Changes in their cough, or potentially coughing up blood, may be an early indicator of a problem. Many of the other symptoms though like headaches, bone pain, weight loss and shortness of breath, often are the result of the spread of the tumor to distant sites.

#### **Diagnosis:**

When patients present with new pulmonary symptoms they may get a chest X-ray, but in an older patient with a smoking history, a chest CT scan provides more definitive information. Many lung cancers may not be detected on a regular CXR. Once a tumor is detected in the lung a definitive diagnosis must be obtained. Traditionally, this has been performed by a percutaneous needle biopsy done on the CT table. Bronchoscopy has also been utilized but has been better with larger tumors located near a main part of the airway. One of the newer technologies available is electro-magnetic navigational bronchoscopy (ENB), which allows the precise placement of the biopsy instruments directly into the tumor. Combined with rapid on-site evaluation



### Lung Cancer Overview

(ROSE) of the specimens by the pathologist, allows for an often immediate diagnosis of the tumor, eliminating the need for a repeat biopsy. This technology also allows for the placement of markers around the tumor to more precisely guide radiation treatments if they are required.

#### Staging:

Once a cancer has been diagnosed the next most critical step is to determine the stage of the cancer, as the treatment plan recommended will be based on this information. In the past, much of this information was obtained from the CT scan which was not always correct. Currently, the recommendations would be for the patient recently diagnosed with lung cancer to undergo a PET scan. This is a nuclear medicine study that helps to identify potential areas of concern. This has greatly improved our ability to stage patients correctly. Current guidelines however strongly recommend that positive findings on a PET scan be confirmed by a biopsy to accurately stage the tumor, especially if the positive finding involved lymph nodes. These biopsies were often obtained surgically. Now the majority of these lymph node biopsies can be gathered through the airway without an incision using endobronchial ultrasound (EBUS). This permits an outpatient procedure with a rapid recovery.

(continued on page 15)

#### **Treatment:**

The treatment of lung cancer continues to evolve with some exciting changes in the past few years. Ideally, the patient with lung cancer would be detected at an early stage where local therapies such as surgery or radiation can provide curative treatment. At this time however, most patients still present with more advanced stages of disease requiring a multi-modality approach. Current guidelines suggest that all patients diagnosed with a lung cancer be evaluated and treated by physicians with a dedicated practice for this disease.

Surgery still remains the best chance for curative therapy in those patients with early stage disease. Ideally, these procedures can be performed as minimally-invasive operations which reduce pain and time in the hospital and allow for a more rapid recovery. For those patients with multiple other medical problems, where general anesthesia and a surgical intervention have a high potential for complications, the use of stereo-tactic ablative radiation (STAR) provides an excellent option in this group of patients.

In those patients diagnosed with Stage III/IV disease, the treatment will often require a combination of chemotherapy and radiation either given concurrently or sequentially depending on the patient and their disease.

One of the most exciting areas in the treatment of lung cancer has been the introduction of targeted therapies that are directed at specific mutations in the tumors. Previously, patients with NSCLC were treated with similar regimens of drugs. Studies then demonstrated that adenocarcinomas responded to some chemotherapy differently than a squamous cell tumor. This led to recommendations that enough tissue be obtained at biopsy to help the pathologist accurately determine the type of tumor so the optimal drugs could be selected. Now with the information being gathered, we are actively looking for patients with EGFR, ALK and ROS-1 mutations, as these patients often respond very well to the drugs currently available. With rapid advances in our understanding of the biology of lung cancer, it is important to ensure that we test for the mutational status of the tumor is appropriate patients. Researchers continue to look for new mutations so ideally all patients could be treated with a targeted therapy.

#### **Small Cell Lung Cancer:**

Small cell lung cancer (SCLC) has a behavior distinct from its more common counterpart, non-small cell

lung cancer. The incidence of SCLC is decreasing in the United States. It currently accounts for approximately 13 percent of all lung cancers, down from approximately 25 percent of all lung cancers in 1993. The disease occurs almost exclusively in smokers and smoking habits have changed in the past few decades. Nonetheless, SCLC continues to be a major clinical problem, with an aggressive clinical course and short disease-free duration after initial therapy. Surgery has a limited role in the treatment of small cell lung cancer. The mainstays of treatment remain chemotherapy and radiation. Unfortunately, despite significant efforts, outcomes from small cell lung cancer remain quite poor. Recent studies indicate that selected patients with advanced small cell lung cancer may benefit from radiation therapy to the brain and chest.

#### Lung Cancer Screening:

On the front end of the lung cancer problem, has been our inability to detect lung cancer at an early stage. Previous lung cancer screening studies detected lung cancer but it did not impact our ability to cure patients. The results of the National Lung Screening Trial (NSLT) finally demonstrated that the use of low dose CT scans (LDCT), compared to a chest X-ray, reduced lung cancer mortality by 20 percent. The risk of dying from all causes was reduced by 6.7 percent in those getting scans as other cancers and cardio-pulmonary diseases were detected allowing earlier intervention. A recent analysis also confirmed that low dose CT scan was favorable from a cost perspective. Again, in order for this to work, the patients and scans must be evaluated by those with an expertise in this area so that unnecessary tests and procedures are not performed.

#### **Clinical Trials:**

The National Comprehensive Cancer Network asserts that the best care for any cancer patient is given in the context of a clinical trial. Despite this, due to a variety of reasons, less than 5 percent of patients diagnosed with cancer in the United States are enrolled in clinical trials. The major reason for this appears to be a lack of awareness among patients of the opportunity to participate in these trials. Another reason found in a survey evaluating this, was that while primary care physicians and oncologists believe that cancer patients should participate in clinical trials, these physicians do not uniformly encourage participation. Given the significant morbidity and mortality burden of lung cancer, it is imperative that we identify better treatment strategies and the only way to achieve this is through increased clinical trial participation.



### Nebraska Medicine

National Oncology Data Alliance (NODA)



Stage		Nebraska Medicine													
	1 Year	2 Years	3 Years	4 Years	5 Years										
Stage I	0.91	0.82	0.7	0.63	0.56										
Stage II	0.84	0.66	0.57	0.52	0.43										
Stage III	0.71	0.45	0.38	0.3	0.25										
Stage IV	0.42	0.21	0.14	0.1	0.08										

Store		National Oncology Data Alliance (NODA)													
Stage	1 Year	2 Years	3 Years	4 Years	5 Years										
Stage I	0.86	0.72	0.62	0.54	0.48										
Stage II	0.74	0.55	0.44	0.37	0.31										
Stage III	0.55	0.33	0.24	0.18	0.14										
Stage IV	0.28	0.12	0.07	0.04	0.03										

Number of Coose			AJCC Stage		
Number of Cases	Stage I	Stage II	Stage III	Stage IV	TOTAL
Nebraska Medicine	166	44	145	164	519
NODA	12330	3457	13653	20767	50187

### Cancer Registry is a Working Document, Useful in Many Ways

The Nebraska Medicine Cancer Registry collects, analyzes and reports data on persons diagnosed and/or treated for a malignancy at Nebraska Medicine - Nebraska Medical Center and Nebraska Medicine - Bellevue. A requirement of the American College of Surgeon's Commission on Cancer accreditation since 1956, the cancer registry is useful in many ways including:

- Local, state and national cancer agencies use registry data in defined areas to make important public health decisions that maximize the effectiveness of limited public health funds, such as the placement of screening programs.
- Cancer registries are valuable research tools for those interested in the etiology, diagnosis and treatment of cancer.
- Fundamental research on the epidemiology of cancer is initiated using the accumulated data.
- Lifetime follow-up is an important aspect of the cancer registry. Current patient follow-up serves as a reminder to physicians and patients to schedule regular clinical examinations and provides accurate survival information.

The registry at Nebraska Medicine contains information on cases diagnosed between 2003 and 2013. The cancer registry can provide a variety of useful information and we are happy to work with you to develop reports to meet your needs. Countless hours are spent abstracting this data for, not only state and national reporting purposes, but also for use by our faculty and staff. The registry staff appreciates clinicians' efforts in thorough documentation of staging as well as response to follow-up information requests sent out by the Cancer Registry. Through your efforts, we are able to maintain quality records to be reported and accessed by many entities.

### Data elements collected by the Cancer Registry staff include:

- Demographic Information: Age, gender, race/ethnicity, birthplace and residence
- Medical History: Physical findings, screening information, occupation and any history of a previous cancer
- Diagnostic Findings: Types, dates and results of procedures used to diagnose cancer
- Cancer information: Primary site, cell type and extent (stage) of disease
- Cancer Therapy: Surgery, radiation therapy, chemotherapy, hormone or immunotherapy
- Follow-up: Annual information concerning treatment, recurrence and patient status is updated to maintain accurate surveillance information

In July, 2013, the Cancer Registry began participation in the American College of Surgeon's Commission on Cancer's Rapid Quality Reporting System (RQRS) for breast and colorectal cancers. RQRS is a reporting and quality improvement tool which provides real clinical time assessment of hospital level adherence to National Quality Forum (NQF)-endorsed quality of cancer care measures for breast and colorectal cancers. RQRS advances evidenced-based treatment through a prospective alert system for anticipated care which supports care coordination required for breast and colorectal cancer patients.

#### Please call the Cancer Registry staff at 402-596-3158 for assistance.

Primary Site		Sex			<b>Class of Case</b>			Sta	ntus	Stage Distribution - Analytic Cases Only								
	Total (%)	Μ	F		Analy NA			Alive	Exp		Stg 0 Stg I Stg II Stg III Stg IV 88 Unk					Bk/Inv		
ORAL CAVITY & PHARYNX	117 (4.0%)	82	35		90	27		103	14		0	23	5	12	42	3	5	0
LIP	4 (U.1%)	3	1		4	U		4	0		U	Z	U		U 1.4	U	1	U
Iongue	3Z(1.1%)	25	/		Z3	9		29	3		U	/	0	Z	14	0	0	U
Salivary Glands	I7 (U.b%)	9	8		13	4		14	3		U	2	1	5	2	2	1	U
	8 (0.3%)	5	3		0 10	U		0 10	U		0	3 7	2 1	1	1	0	1	U
	Z3 (U.8%)	14	9 2		19	4		19	4		0	/	0	0	9 1	U 1	0	0
Tonsil	4 (U.170) 10 (0.6%)	1 16	ა 2		2 12	2		ა 16	1		0	U 1	0	U 1	1 10	1	U 1	0
Oronbanany	10 (U.U %) 6 (0.2%)	6	2		13 5	ິ 1		6	2		0	1	1	1	10	0	0	0
	0 (0.2 /0) 5 (0.2%)	2	2		່ງ ວ	1 2		1	1		0	0	0	0	2	0	0	0
пурорнанунх	J (U.Z 70)	3	Ζ		3	Z		4	I		U	U	U	U	3	U	U	U
DIGESTIVE SYSTEM	564 (19.1%)	320	244		357	207		419	145		9	62	89	67	107	5	16	2
Esophagus	30 (1.0%)	24	6		17	13		23	7		0	2	3	6	5	0	1	0
Stomach	47 (1.6%)	34	13		28	19		38	9		1	9	8	2	7	0	0	1
Small Intestine	25 (0.8%)	15	10		13	12		17	8		0	1	4	3	4	0	1	0
Colon Excluding Rectum	143 (4.8%)	71	72		79	64		120	23		4	11	17	14	26	0	7	0
Cecum	33	16	17		21	12		26	7		2	6	3	4	5	0	1	0
Appendix	13	4	9		3	10		10	3		0	0	1	0	1	0	1	0
Ascending Colon	28	14	14		21	7		27	1		0	2	9	6	3	0	1	0
Hepatic Flexure	3	3	0		1	2		1	2		0	0	0	0	1	0	0	0
Transverse Colon	8	3	5		4	4		7	1		0	1	0	0	2	0	1	0
Splenic Flexure	1	1	0		0	1		1	0		0	0	0	0	0	0	0	0
Descending Colon	5	4	1		3	2		5	0		0	0	0	1	2	0	0	0
Sigmoid Colon	46	23	23		25	21		39	/		2	2	4	3	11	0	3	0
Large Intestine, NUS	6	3	3		1	5		4	2		0	0	0	0	1	0	0	0
Rectum & Rectosigmoid	64 (2.2%)	39	25		40	24		56	8		2	6	8	13	10	0	0	1
Rectosigmoid Junction	15	11	4		8	/		12	3		0	2	1	1	4	0	0	0
Rectum	49	28	21		32	1/		44	5		2	4	/	12	6	0	0	1
Anus, Anal Canal & Anorectum	9(0.3%)	Z	/		b 50	3		8			1	U 10	2	Z	U 10	U		U
Liver & Intranepatic Bile Duct	74 (2.5%)	45	29		52	22		44	30		U	13	8	12	1Z	4	3	U
Liver	b3	41	22		4Z	2 I 1		38	25 5		0	13	8	12	5 7	2	۲ ۱	U
Intranepatic Blie Duct	[] E (0, 20()	4	/		10	1		b 2	5		U	U	0	U 1	1	2		U
Other Billion	⊃(U.2%) 20 (0 70/)	1 10	4		4	0		3 16	Z A		0	U C	2	ן כ	ן ר	0	U 1	0
	ZU (U.7%)		10			0 DD		10	4		U 1	3 17	ა ეე	3	2 حد	0	ן ר	0
Palicieds	133 (4.5%)	/0 2	57		90	3/ 1		0/ ว	40 2		1	14 2	33 1	9 1	3/	U 1	2	0
Paritanaum Omantum & Macantany	0(0.2%)	2 1	4		5 5	ו כ		3 1	3 1		0	۲ 1	1	1	0 2	0	0	0
Fentoneum, omentum & Mesentery	0 (0.3%)	1	/		5	3		4	4		U	I	U	I	3	U	U	U
RESPIRATORY SYSTEM	351 (11.9%)	199	152		270	81		236	115		0	74	19	53	121	1	2	0
Nose, Nasal Cavity & Middle Ear	6 (0.2%)	2	4		5	1		6	0		0	1	0	0	3	1	0	0
Larynx	33 (1.1%)	22	11		21	12		24	9		0	4	3	6	8	0	0	0
Lung & Bronchus	312 (10.5%)	175	137		244	68		206	106		0	69	16	47	110	0	2	0

Primary Site	Total (%)	S M	ex F	Class of Case Analy NA			Stat Alive	Status Alive Exp		Stage Distribution - Analytic Cases Only Stg 0 Stg I Stg II Stg III Stg IV 88 Unk Bk/							ly Bk/Inv
BONES & JOINTS Bones & Joints	<b>14 (0.5%)</b> 14 (0.5%)	<b>2</b> 2	<b>12</b> 12	<b>10</b> 10	<b>4</b> 4		<b>13</b> 13	<b>1</b> 1		<b>0</b> 0	<b>4</b> 4	<b>3</b> 3	<b>0</b> 0	<b>2</b> 2	<b>0</b> 0	<b>1</b> 1	<b>0</b> 0
<b>SOFT TISSUE</b> Soft Tissue (including Heart)	<b>31 (1.0%)</b> 31 (1.0%)	<b>18</b> 18	<b>13</b> 13	<b>23</b> 23	<b>8</b> 8		<b>27</b> 27	<b>4</b> 4		<b>0</b> 0	<b>7</b> 7	<b>7</b> 7	<b>3</b> 3	<b>4</b> 4	<b>1</b> 1	<b>1</b> 1	<b>0</b> 0
<b>SKIN EXCLUDING BASAL &amp; SQUAMOUS</b> Melanoma Skin Other Non-Epithelial Skin	<b>149 (5.0%)</b> 138 (4.7%) 11 (0.4%)	<b>94</b> 84 10	<b>55</b> 54 1	<b>115</b> 104 11	<b>34</b> 34 0		<b>138</b> 128 10	<b>11</b> 10 1		<b>20</b> 20 0	<b>49</b> 46 3	<b>11</b> 11 0	<b>22</b> 22 0	<b>4</b> 4 0	<b>6</b> 0 6	<b>3</b> 1 2	<b>0</b> 0 0
BASAL & SQUAMOUS SKIN Basal/Squamous cell carcinomas of Skin BREAST Breast FEMALE GENITAL SYSTEM Cervix Uteri Corpus & Uterus, NOS Corpus Uteri Uterus, NOS Ovary Vagina Vulva Other Female Genital Organs	2 (0.1%) 2 (0.1%) 361 (12.2%) 361 (12.2%) 159 (5.4%) 25 (0.8%) 82 (2.8%) 74 8 30 (1.0%) 5 (0.2%) 15 (0.5%) 2 (0.1%)	1 5- 5 0 0 0 0 0 0 0 0 0	1 356 356 159 25 82 74 8 30 5 15 2	0 270 270 118 17 67 64 3 21 2 10 1	<b>2</b> 91 91 41 8 15 10 5 9 3 5 1		2 346 346 133 21 67 60 7 26 4 13 2	0 15 15 26 4 15 14 1 4 1 2 0		0 44 44 3 0 0 0 0 0 0 0 3 0	0 104 104 58 5 45 44 1 4 1 3 0	0 76 76 3 3 2 1 0 0 1	0 24 24 3 10 9 1 11 1 3 0	<b>0</b> 12 12 19 6 7 7 0 6 0 0	0 0 1 0 0 0 0 0 0 0 1	0 10 10 2 0 2 2 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0
MALE GENITAL SYSTEM Prostate Testis Penis Other Male Genital Organs	<b>178 (6.0%)</b> 162 (5.5%) 13 (0.4%) 1 (0.0%) 2 (0.1%)	<b>178</b> 162 13 1 2	<b>0</b> 0 0 0	<b>130</b> 122 6 1 1	<b>48</b> 40 7 0 1		<b>170</b> 155 12 1 2	<b>8</b> 7 1 0 0		<b>0</b> 0 0 0	<b>13</b> 11 2 0 0	<b>68</b> 67 0 1 0	<b>22</b> 20 2 0 0	<b>15</b> 15 0 0	<b>1</b> 0 0 1	11 9 2 0 0	<b>0</b> 0 0 0
URINARY SYSTEM Urinary Bladder Kidney & Renal Pelvis Ureter Other Urinary Organs	170 (5.7%) 70 (2.4%) 93 (3.1%) 6 (0.2%) 1 (0.0%)	<b>117</b> 56 56 4 1	<b>53</b> 14 37 2 0	<b>114</b> 41 67 5 1	<b>56</b> 29 26 1 0		<b>150</b> 61 83 5 1	<b>20</b> 9 10 1 0		<b>16</b> 15 0 1 0	<b>37</b> 6 31 0 0	<b>9</b> 5 2 2 0	<b>19</b> 3 14 1 1	<b>23</b> 10 12 1 0	<b>4</b> 0 4 0 0	6 2 4 0 0	<b>0</b> 0 0 0
EYE & ORBIT Eye & Orbit	<b>7 (0.2%)</b> 7 (0.2%)	<b>4</b> 4	<b>3</b> 3	<b>4</b> 4	<b>3</b> 3		<b>6</b> 6	<b>1</b> 1		<b>0</b> 0	<b>0</b> 0	<b>2</b> 2	<b>0</b> 0	<b>0</b> 0	<b>2</b> 2	<b>0</b> 0	<b>0</b> 0

Primary Site	Total (%)	Sex Class of C M F Analy N		lass of Case Status Analy NA Alive Exp			s Stage Distribution - Analytic Cases Only Exp Stg 0 Stg 1 Stg II Stg III Stg IV _88 _ Unk B											
	10(41 (70)		•	/ undary			7 11100	Елр		ougu	ougi	otgi	otgin	ought	00	Onix	Biyinv	
BRAIN & OTHER NERVOUS SYSTEM Brain Cranial Nerves Other Nervous System	<b>155 (5.2%)</b> 71 (2.4%) 84 (2.8%)	<b>70</b> 35 35	<b>85</b> 36 49	<b>112</b> 54 58	<b>43</b> 17 26		<b>129</b> 49 80	<b>26</b> 22 4		<b>0</b> 0 0	<b>0</b> 0 0	<b>0</b> 0 0	<b>0</b> 0 0	<b>0</b> 0 0	111 53 58	<b>0</b> 0 0	<b>1</b> 1 0	
ENDOCRINE SYSTEM Thyroid Other Endocrine including Thymus	<b>92 (3.1%)</b> 67 (2.3%) 25 (0.8%)	<b>38</b> 23 15	<b>54</b> 44 10	<b>64</b> 47 17	<b>28</b> 20 8		<b>89</b> 66 23	<b>3</b> 1 2		<b>0</b> 0 0	<b>34</b> 34 0	<b>4</b> 3 1	<b>7</b> 7 0	<b>3</b> 3 0	<b>16</b> 0 16	<b>0</b> 0 0	<b>0</b> 0 0	
LYMPHOMA Hodgkin Lymphoma Hodgkin - Nodal Hodgkin - Extranodal Non-Hodgkin Lymphoma NHL - Nodal NHL - Extranodal	<b>292 (9.9%)</b> 45 (1.5%) 41 4 247 (8.3%) 168 79	<b>158</b> 25 23 2 133 99 34	<b>134</b> 20 18 2 114 69 45	<b>140</b> 20 19 1 120 78 42	<b>152</b> 25 22 3 127 90 37		266 44 40 4 222 150 72	<b>26</b> 1 1 0 25 18 7		<b>0</b> 0 0 0 0 0	<b>23</b> 2 2 0 21 2 19	<b>25</b> 7 6 1 18 12 6	<b>23</b> 7 7 0 16 16 0	<b>62</b> 4 0 58 46 12	<b>3</b> 0 0 3 0 3	<b>3</b> 0 0 3 2 1	1 0 0 1 0 1	
<b>MYELOMA</b> Myeloma	<b>56 (1.9%)</b> 56 (1.9%)	<b>35</b> 35	<b>21</b> 21	<b>40</b> 40	<b>16</b> 16		<b>49</b> 49	<b>7</b> 7		<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>40</b> 40	<b>0</b> 0	<b>0</b> 0	
LEUKEMIA Lymphocytic Leukemia Acute Lymphocytic Leukemia Chronic Lymphocytic Leukemia Other Lymphocytic Leukemia Myeloid & Monocytic Leukemia Acute Myeloid Leukemia Acute Monocytic Leukemia Chronic Myeloid Leukemia Other Myeloid/Monocytic Leukemia Other Leukemia Other Acute Leukemia Aleukemic, Subleukemic & NOS	149 (5.0%) 65 (2.2%) 13 47 5 81 (2.7%) 58 6 16 1 3 (0.1%) 2 1	<b>87</b> 43 7 32 4 42 31 2 8 1 2 0	62 22 6 15 1 39 27 4 8 0 1 0 1	<ul> <li>86</li> <li>23</li> <li>8</li> <li>13</li> <li>2</li> <li>62</li> <li>48</li> <li>6</li> <li>8</li> <li>0</li> <li>1</li> <li>1</li> <li>0</li> </ul>	63 42 5 34 3 19 10 0 8 1 2 1 1		<b>120</b> 59 12 43 4 58 38 4 15 1 3 2 1	29 6 1 4 1 23 20 2 1 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	<ul> <li>86</li> <li>23</li> <li>8</li> <li>13</li> <li>2</li> <li>62</li> <li>48</li> <li>6</li> <li>8</li> <li>0</li> <li>1</li> <li>1</li> <li>0</li> </ul>	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	
MESOTHELIOMA Mesothelioma	<b>6 (0.2%)</b> 6 (0.2%)	<b>4</b> 4	<b>2</b> 2	<b>4</b> 4	<b>2</b> 2		<b>3</b> 3	<b>3</b> 3		<b>0</b> 0	<b>1</b> 1	<b>0</b> 0	<b>2</b> 2	<b>1</b> 1	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	
MISCELLANEOUS Miscellaneous	<b>106 (3.6%)</b> 106 (3.6%)	<b>54</b> 54	<b>52</b>	<b>56</b>	<b>50</b> 50		<b>71</b> 71	<b>35</b> 35		<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>56</b>	<b>0</b> 0	<b>0</b> 0	

# Cancer Committee 2013

John Baker, MD - Pathology Jim Commers, MD – Hematology-Oncology Mary Durand, B.S., R.T., (R)(T) - Manager, Radiation Oncology Charles Enke, MD – Radiation Oncology Theresa Franco, RN, MSN – Executive Director, Cancer Care James Harper, MD – Pediatric Hematology-Oncology Dawn Jourdan, RN, BSN - Clinical Quality Coordinator, Oncology Susan Kambhu, MD – Hematology-Oncology Marsha Ketcham, RN, OCN - Clinical Research Nurse Coordinator Rudy Lackner, MD – Thoracic Surgical Oncology Chad Lagrange, MD – Urology Rayma Meyers, CTR – Cancer Registry Jennifer Oliveto, MD - Radiology Gwen Reiser, MS, CGC - Genetic Counselor Alan Richards, MD – Head and Neck Surgical Oncology Jason Roberts, PT – Rehab Services Aaron Sasson, MD – Cancer Committee Chair – Gastrointestinal Surgical Oncology Clare Shanahan, American Cancer Society Carri Siedlik, APRN - Palliative Care Nurse Practitioner Sue Stensland, LCSW - Manager, Social Work Dave Sweeney, M.DIV – Pastoral Care Heidi Tonne, RN, BSN Jue Wang, MD - Hematology-Oncology Sue Wardian Hartung, RN, MSN, ONC - Patient Education Coordinator, Oncology Matt Winfrey, MPP - Associate Director for Administration and External Affairs, Eppley Institute for Research in Cancer and Allied Diseases Ann Yager, BSRT, (R)(T) – Director, Village Pointe Cancer Center

# Accreditations and Awards













- National Comprehensive Cancer Network (NCCN)
- National Cancer Institute (NCI) Designation
- Foundation for the Accreditation of Cellular Therapy (FACT)
- Accreditation of Radiation Oncology by American College of Radiology (ACR)
- American College of Surgeons Commission on Cancer (ACoS CoC)
- First hospital in the state to receive the Blue Distinction Center for Rare and Complex Cancers from Blue Cross Blue Shield of Nebraska
- Magnet designation for nursing excellence
- Best Hospitals U.S. News and world Reports ranked 40th in Cancer

Nebraska Medicine 987433 Nebraska Medical Center Omaha, NE 68198-7433

800.922.0000 www.NebraskaMed.com



SERIOUS MEDICINE. EXTRAORDINARY CARE.®