Siddhartha Mukherjee, MD, author of *The Emperor of All Maladies*, and Cheryl Willman, MD, Director and CEO of the UNM Cancer Center, in front of *Duality*, a gift from world-renowned New Mexican artist Dan Namingha.
Tiny Cancer Killers
Nanoparticles deliver cancer drugs a million times more efficiently

Gene Power
Using genomics to improve cancer treatment

Five More Years
Our National Cancer Institute designation has been renewed

Emperor’s Biographer
A visit from bestselling author Siddhartha Mukherjee, MD

Instant Isotopes
Siemens partnership means more efficient radioisotope production

Lift as You Rise
UNM yeast researcher wins Distinguished Scientist Award

DREAMS Take Flight
The dedication of the new UNM Cancer Treatment and Clinical Research Facility

Transformational Gift
The impact of a $9.5 million gift from the Surface Family Trust

Healing Spirits
Thoughts on art and healing from great New Mexican artists

Dreams Take Flight
The dedication of the new UNM Cancer Treatment and Clinical Research Facility

Bringing Hope Home
UNM Cancer Center donors are turning dreams into reality

The University of New Mexico Cancer Center is the Official Cancer Center of New Mexico and the only National Cancer Institute-designated cancer center in the state. One of just 66 NCI-designated cancer centers nationwide, the Center is home to 65 board-certified oncology physicians representing every cancer specialty and 127 research scientists hailing from prestigious institutions such as MD Anderson, Johns Hopkins and the Mayo Clinic. The UNM Cancer Center treats over 65 percent of the adults and virtually all of the children in New Mexico affected by cancer, from every county in the state. In 2010, it provided care to more than 15,800 cancer patients.

El Oso de Salud, or “the bear of health,” represents Mudjekeewis – Spirit Keeper of the West, a Native American symbol of responsibility, leadership, teaching and healing. The University of New Mexico Cancer Center has chosen El Oso de Salud as our seal, and as the name of our donor society and magazine, because we are committed to serving those whose lives have been touched by cancer with the powers associated with Mudjekeewis: strength, courage, grace and great ability.
### UNM Cancer Center Growth 2000-2010

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2000</th>
<th>2003</th>
<th>2007</th>
<th>2009</th>
<th>2010</th>
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<tr>
<td>Net clinic revenues:</td>
<td>$8.3 million</td>
<td>$16.7 million</td>
<td>$34.8 million</td>
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<td>Patients seen:</td>
<td>2,500</td>
<td>5,500</td>
<td>7,600</td>
<td>11,750</td>
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<td>Ambulatory clinic visits:</td>
<td>29,500</td>
<td>53,100</td>
<td>80,600</td>
<td>124,500</td>
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<td>Chemotherapy infusions:</td>
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<td>6,089</td>
<td>9,297</td>
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<td>Radiation treatments:</td>
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<td>Uncompensated care:</td>
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<td>$3.9 million</td>
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<td>$5 million</td>
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<tr>
<td>Board-certified oncologists:</td>
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<td>24</td>
<td>73</td>
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<tr>
<td>Research faculty:</td>
<td>59</td>
<td>77</td>
<td>120</td>
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<td>Patients from Bernalillo County:</td>
<td>48%</td>
<td>49%</td>
<td>52%</td>
<td>52%</td>
<td>57%</td>
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<td>Clinical trial accruals:</td>
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<td>Total research funding:</td>
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<td>$1.5 million</td>
<td>$2.6 million</td>
<td>$10.8 million</td>
<td>$6.3 million</td>
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</table>

### What an incredible year!

The UNM Cancer Center made headlines with major discoveries that are transforming how we treat – and beat – cancer. In collaboration with Sandia National Laboratories, our researchers have engineered a new type of nanocarrier that is one million times more effective than existing nanoparticles in killing cancer cells. Animal trials are currently underway and human clinical trials are expected within five years. We also broke new ground in genomics, establishing a crucial genetic link between Native American ancestry and relapse risk in children with acute lymphoblastic leukemia. Identification and characterization of the genes involved is leading to better treatments for Native and Hispanic kids with the disease.

Our scientific successes paved the way for another milestone: the competitive renewal of our National Cancer Institute designation for another five years. We remain the only NCI-designated cancer center in the state, and one of just 66 premier cancer centers nationwide. Earlier this year, we announced a transformative $9.5 million gift from the Surface Family Trust to further our research into cancer causes and cures. We’ve created six endowed research chairs thanks to the gift, and have already recruited three outstanding scientists to Surface-endowed positions. A $2.5 million bequest by the late Marilyn Budke, known to many as one of the most influential women in New Mexico politics, is likewise enabling us to create new research chairs, while an anonymous donor has established a $1.5 million endowed chair in clinical oncology to honor beloved UNM Cancer Center physician John Saiti, MD.

Last June was a time of celebration. We dedicated our new home, a state-of-the-art 206,432 square-foot clinical research and treatment center, open to patients since August of 2009. So many people have contributed to this gift to the people of New Mexico, and we are especially grateful to the New Mexico Legislature for their long-term support. Special thanks are also due to the Carl C. Anderson, Sr. and Marie J. Anderson Charitable Foundation for funding a sophisticated radiosurgery suite and a healing garden and pool. Artwork by some of New Mexico’s finest artists fills our new home, including an exquisite canvas by world-renowned painter Dan Namingha, selected for the cover of this magazine.

Nothing we do is possible without the dedication and hard work of our scientists, physicians, clinicians and staff – and you, our patients, supporters and dear friends. When we broke ground for our new building in 2007, we released hundreds of butterflies, a symbolic gesture of wish-making rooted in Native American legend. On behalf of the people of New Mexico, thank you for making so many wishes and dreams come true.

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**Chief:**

Cheryl L. Willman, MD

The Maurice and Marguerite Liberman Distinguished Chair in Cancer Research

Professor of Pathology and Medicine, UNM School of Medicine

Director & CEO, UNM Cancer Center

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### Statewide Network

- **San Juan Regional Cancer Center – Farmington**
- **Christus - St. Vincent’s Regional Cancer Center – Santa Fe**
- **UNM Cancer Center – Albuquerque**
- **UNM Cancer Center Clinics at Lovelace Medical Center**
- **Memorial Medical Center – Las Cruces**

### Patients by County FY2010

<table>
<thead>
<tr>
<th>County</th>
<th>Total FY10 Patients</th>
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<tr>
<td>In State</td>
<td>14,659</td>
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<tr>
<td>Out of State</td>
<td>1,229</td>
</tr>
<tr>
<td>Total</td>
<td>15,888</td>
</tr>
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</table>
A tiny particle is poised to have a huge impact on cancer treatment. Researchers at the UNM Cancer Center and Sandia National Laboratories have engineered a targeted nanocarrier so powerful and precise that it improves upon existing nanoparticle-based drug delivery by a staggering millionfold. The UNM-Sandia team unveiled their groundbreaking research in a paper published on the cover of *Nature Materials* in May. Since then, says co-author Cheryl Willman, MD, Director and CEO of the UNM Cancer Center, “we’ve been getting tons of calls from all over the country.”

The particle at the center of attention is so minute that you’d need an electron microscope to catch a glimpse of it. Measuring just 150 nanometers across – about the size of the smallest known bacteria – the new drug carrier packs a knock-out punch to cancer cells. Its creators call it a “protocell,” but make no mistake: this particle is a teeny tiny cancer killer.

The protocell is the product of the strange and wondrous world of nanoscale engineering. It’s composed of two parts: a lipid bilayer membrane, similar to that of a living cell, and a honeycombed silica core, manufactured through a self-assembly process pioneered by C. Jeffrey Brinker, PhD, a UNM Cancer Center member, UNM Distinguished and Regents’ Professor and Sandia Fellow. Funded by a five-year, $1.95 million grant from the National Cancer Institute’s Alliance for Nanotechnology in Cancer Program, Drs. Brinker and Willman are co-leading efforts to test and refine the protocol’s ability to deliver a mix of cancer drugs directly to tumor cells.

Most chemotherapy drugs are infused into the patient’s bloodstream, where they attack cancer cells and can do significant harm to other fast-growing cells. It is this collateral damage to normal cells that produces chemotherapy’s multiple, often severe side effects. The systemic toxicity of chemotherapy drugs can also preclude patients from taking doses high enough to fight cancer most effectively. But what if such drugs could be safely encapsulated in tiny structures with a special affinity for cancer cells? Liposomes, first discovered in the 1960s and subsequently synthesized for drug delivery, are the nanoparticles currently considered state of the art. Consisting of a lipid bilayer membrane (the model for the protocell’s) surrounding a watery core able to hold drugs and other substances, liposomes are generally well-tolerated by the human body. The U.S. Food and Drug Administration has approved about a dozen liposomal drugs to date, including several used in cancer therapy. The problem, says Carlee Ashley, PhD, the lead author of the *Nature Materials* paper and a former doctoral student in Dr. Brinker’s lab, is that liposomes tend to fall apart in the bloodstream and thus neither deliver full amounts of drugs to cancer cells nor mitigate the side effects of chemotherapy.

**New nanoparticle is one million times more effective at killing cancer cells**

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The protocol, by contrast, does both. It is unprecedented, says Dr. Ashley, now a Harry S. Truman Fellow in the Biotechnology and Bioengineering Department at Sandia Labs, in combining high capacity with targeting precision. The honeycomb structure of its silica core cleverly folds maximum surface area into minimum space, allowing the protocol to hold 1,000 times more chemical cargo than its liposome rival. And it’s not just capacity that distinguishes it from older technology: its silica core supports the outer lipid bilayer, making the protocell more stable and ensuring that it retains most of its cargo until the moment is right for release. Loading cancer drugs into the core is as simple as “soaking” the protocol to seek out and “hook into” cancer cells – releasing their deadly cargo inside their target for maximum impact. Project collaborator David Peabody, PhD, created a library of phages (viruses that attack bacteria) to help researchers identify specific peptides with a strong affinity for different types of cancer cells. Though liposomes also use peptides to bind to tumor cells, the unique structure of the protocol suspends these molecules in fluid rather than gel. “This gives the peptides greater mobility, allowing them to be ‘recruited’ to the cancer cell surface,” explains Dr. Ashley. Because of this ‘recruitment’ effect, fewer peptides need to be used to achieve highly specific targeting. And fewer peptides means the body is less likely to identify the protocol as a foreign object, allowing the nanoparticle to cruise in the bloodstream for days or even weeks under the radar of the immune system and cleansing organs like the liver.

Each reinforcing the other, the multiple advantages inherent to the protocol ultimately give the new particle its incredible millionfold efficacy edge over existing nanocarriers. “We made direct comparisons between protocols and liposomes, and found that protocols were one million times more effective at killing cancer cells,” says Dr. Ashley. As reported in Nature Materials, the UNM-Sandia team deployed both particles against model human liver cancer cells. The results of these in vitro experiments are astounding. “The nanocarriers are so potent that an average a single particle is sufficient to kill a model hepatic carcinoma [liver cancer] cell,” writes Howard Hughes Medical Institute investigator Darrell Irvine, PhD, an MIT researcher and Howard Hughes Medical Institute investigator, in a “News & Views” commentary published alongside the paper. Overall, protocol-delivered drugs destroyed over 95 percent of cancer cells, compared to 70 percent killed by liposomes. An even more provocative finding emerged from tests involving normal liver cells. Protocells were found to destroy less than 10 percent of healthy cells, while liposomes killed a full 30 percent. Though only preliminary, this result holds out the tantalizing promise of more effective chemotherapy with far fewer side effects.

In recent months, the UNM-Sandia team has moved its research into animal models – the next step on the rigorous road to human clinical trials. They’ve begun by testing protocells in mouse models of human acute lymphoblastic leukemia (ALL) cell lines, taking advantage of the UNM Cancer Center’s world-renowned leukemia expertise and recent breakthrough research linking ethnic ancestry and relapse risk in children with genetic alterations that impact ALL. (See “Gene Power” on page eight.) “We’re using protocols sprinkled with a peptide designed to target CRIP2, a protein that is overexpressed by ALL cells,” explains Eric Carnes, PhD, another co-author of the Nature Materials paper and a lead scientist for this next phase of the work. “By targeting CRIP2, we ensure that we’re selectively delivering our chemotherapeutic agents to the leukemia cells while sparing, as much as possible, non-cancerous cells.”

“The nanocarriers are so potent that on average a single particle is sufficient to kill a model hepatic carcinoma [liver cancer] cell,” writes Howard Hughes Medical Institute investigator Darrell Irvine. Within five years, Dr. Willman predicts, protocols will be in pediatric ALL clinical trials, offering new hope for young patients and their families. But the story doesn’t end there. “The protocol has applications to many different types of cancers, and that is part of what’s fueling excitement around the new technology,” she explains. Dr. Ashley puts it this way: “We’re really engineering the protocol to be a universal drug carrier.” Universal, but individually made to deliver our chemotherapeutic agents to the cancer cells while sparing, as much as possible, non-cancerous cells.”

Dr. Willman likens protocols to “little nuclear bombs” with homing devices that can be exquisitely calibrated for various cancers. Their outer membrane is sprinkled with targeting peptides that allow the protocol to seek out and “hook into” cancer cells – releasing their deadly cargo inside their target for maximum impact. Project collaborator David Peabody, PhD, created a library of phages (viruses that attack bacteria) to help researchers identify specific peptides with a strong affinity for different types of cancer cells. Though liposomes also use peptides to bind to tumor cells, the unique structure of the protocol suspends these molecules in fluid rather than gel. “This gives the peptides greater mobility, allowing them to be ‘recruited’ to the cancer cell surface,” explains Dr. Ashley. Because of this ‘recruitment’ effect, fewer peptides need to be used to achieve highly specific targeting. And fewer peptides means the body is less likely to identify the protocol as a foreign object, allowing the nanoparticle to cruise in the bloodstream for days or even weeks under the radar of the immune system and cleansing organs like the liver.

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GenePower

How much does individual biology matter in cancer progression and treatment? A lot, according to mounting evidence from research into a range of cancers. Since cancer has its origins in genetic mutations that promote unchecked cell growth, variations in gene expression and arrangement can influence everything from a person’s risk for certain cancers to how a tumor responds to therapy.

Physicians and researchers have long noted correlations between ethnicity and the prevalence or virulence of some cancers. For example, women from Ashkenazi Jewish backgrounds have a higher risk of developing particular types of aggressive breast cancers. Unraveling the genetic underpinnings of these observed correlations — and doing something about them — poses the greater challenge. But in the realm of leukemia, researchers have taken an exciting step forward. A team including internationally acclaimed leukemia researcher Cheryl Willman, MD, the UNM Cancer Center’s Director and CEO, and led by St. Jude Children’s Research Hospital and the Children’s Oncology Group analyzed the genomes of 2,500 young leukemia patients to establish, for the first time, a precise link between genetic ancestry and relapse risk.

The children in the St. Jude study were being treated for acute lymphoblastic leukemia (ALL), the most common childhood cancer. Approximately 5,000 children in the U.S. are diagnosed with ALL each year, including about 45 New Mexican kids. Once a death sentence, pediatric ALL is now considered highly treatable, with five-year survival rates nearing 85 percent. Despite this progress, not all children have benefited equally. Survival rates differ among children of various ethnicities, in particular, treatment failure and relapse are more common among Hispanic and Native American kids, contributing to lower average survival rates (80 and 78 percent, respectively).

“We’ve long explained these disparities in terms of socioeconomic and cultural factors,” notes Dr. Willman. “And they likely do play a role. But our research shows that genetics is a key, even primary, factor in Native and Hispanic children’s response to cancer therapy.” Specifically, the St. Jude team discovered that a high percentage of Native ancestry was associated with drug resistance and relapse risk among kids with ALL. Two genetic mutations prevalent in Native and Hispanic kids who have low survival rates are thought to be responsible for relapse propensity. The first occurs in JAK, a gene that codes for kinases, enzymes that can trigger uncontrolled cell growth. This mutation was discovered by Dr. Willman and her lab in 2009; the UNM Cancer Center is now leading a nationwide trial to test a drug that inhibits its harmful effects. The second mutation arises in CRF2, a gene that governs the development of immune cells recently implicated in ALL. Animal studies testing CRF2 proteins as a target for drugs delivered via the UNM Cancer Center’s new nanocarrier, the protocol, are just beginning. (See “Teeny Tiny Cancer Killers” on page four.)

The new research, published in the scientific journal Nature Genetics, is the first to marshal compelling genetic evidence to explain why ALL is a deadlier for Native American and Hispanic kids. Researchers broke new ground by using genomics, rather than self-reported race, to establish study participants’ ancestry. Not only does such analysis allow for precision in characterizing a person’s ethnic makeup, it also uncovers “hidden” ancestry. For example, researchers found levels of Native ancestry significant enough to impact ALL relapse risk among many self-reported Hispanics.

Understanding genetic ancestry improves treatment for children with acute lymphoblastic leukemia

There are only 66 cancer centers in the nation designated by the National Cancer Institute (NCI), the top federal agency for cancer research and training. In 2005, the UNM Cancer Center became one of them. The achievement was extraordinary, for the Center, its research partners and the people of New Mexico seeking world-class cancer care in their home state. All involved celebrated - then got to work, shoring up the Center’s superb research and clinical operations and expanding its capabilities with an eye toward 2010, when NCI designation would be up for competitive renewal.

Last year, after a rigorous review and site visit, a team of top cancer experts handed down their verdict: the UNM Cancer Center was again among the nation’s premier cancer centers, re-designated by the NCI for another five years. Sharing the credit and sense of accomplishment were the Center’s key consortium partners: Sandia National Laboratories, Los Alamos National Laboratory and the Lovelace Respiratory Research Institute.

“As an NCI-designated center, we play a leading role in delivering medical advances to patients, educating health care professionals and reaching out to underserved populations.”

The Center has a strong, nationally recognized research mission supported by $60 million annually in grants from federal and private agencies. The Center’s research enterprise is organized into four NCI-funded research programs – Cancer Biology and Biotechnology, Cancer Population Sciences, Hematologic Malignancies and Women’s Cancers. Together, these programs leverage the expertise of 127 scientists in diverse fields working within UNM and the Cancer Center’s partner institutions. Multi-disciplinary collaboration, so key to cutting-edge cancer science, flourishes at the Center and gives rise to some of its most exciting discoveries.

The UNM Cancer Center is also home to 85 board-certified oncology physicians representing every cancer specialty. In addition to providing treatment and leading clinical trials of new therapies,
The Cancer Biology and Biotechnology research program integrates basic and translational laboratory scientists focused on cancer-relevant research. Program members seek to understand the fundamental dynamics of cancer growth and development and translate this understanding into new diagnostic and therapeutic agents, as well as to discover, model and validate novel targets for cancer diagnosis, screening, prevention and therapy. Recent achievements include:

**$3.75 Million in NCI Nanotechnology Grants** | Last fall, the UNM Cancer Center received two major grants from the National Cancer Institute’s Alliance for Nanotechnology in Cancer Program. A five-year, $1.95 million Cancer Nanotechnology Platform Partnership grant is fueling an exciting collaboration between the UNM Cancer Center and Sandia National Laboratories. Led by Cheryl Willman, MD, and C. Jeffrey Brinker, PhD, the partnership is focused on developing new nanotechnology platforms capable of targeted cellular delivery of anti-cancer drugs, including the Center’s groundbreaking new nanocarrier (see below and page four) and a related project led by David Peabody, PhD, to engineer virus-like particles for drug delivery. Another five-year, $1.8 million Cancer Nanotechnology Training Center grant has launched the multidisciplinary New Mexico Cancer Nanotechnology Training Center, led by Janet Oliver, PhD, and Abhaya Datye, PhD. The new training center integrates graduate students and post-doctoral researchers with backgrounds in medicine, biology and other health sciences, as well as the physical sciences, chemistry and engineering, in order to develop the next generation of nanotechnology scientists primed to pursue cancer research. The UNM Cancer Center was the only institution in the nation to receive both of these high-profile NCI grants.

**Groundbreaking “Universal Nanocarrier” Developed** | The new platform partnership between the UNM Cancer Center and Sandia National Laboratories, rooted in longstanding collaboration between the two organizations, has already made headlines. The UNM-Sandia research team has engineered a new drug-delivery nanoparticle, dubbed a “protocell,” that’s able to target and kill cancer cells with one million times the efficiency of liposomes, the existing technology. See full story on page four.

**$15.5 Million NIH Molecular Discovery Grant** | The UNM Cancer Center is now home to one of only nine National Molecular Discovery Centers in the nation, thanks to a six-year, $15.5 million grant from the National Institutes of Health. Led by Larry Sklar, PhD, the UNM Center for Molecular Discovery operates as a biomedical screening center, seeking new small molecules and proteins that target the regulation of cancer cell life and death. The Center has world-class capabilities in high-throughput flow cytometry, an extraordinarily efficient method of counting and examining particles by suspending them in a stream of fluid and passing them by an electronic detection apparatus. In fact, Dr. Sklar and his colleague, Bruce Edwards, PhD, have patented their own technology to dramatically accelerate the process of molecular discovery. The team has developed a new apparatus and protocol that together can generate new cell analyses nearly 30 times faster than previous technologies allowed.

**$2.7 Million NIH Genome Sequencing Grant** | The race is on to develop the next generation of DNA sequencing and analysis technologies that will bring the cost of whole-genome sequencing under $1,000. Jeremy Edwards, PhD, is one of just 10 recipients nationwide of a “$1,000 Genome Grant” from the NIH’s National Human Genome Research Institute. Last fall, he and his lab won a three-year, $2.7 million grant to further their work on polony sequencing, a promising approach to producing high-quality genome sequences of three billion base pairs (the amount of DNA found in humans) that Dr. Edwards believes may actually bring the cost down far below $1,000 — maybe even to $100 by 2013. Cutting the cost (and time) of whole-genome sequencing and analysis will allow the procedure to be used routinely in the laboratory and clinic, helping researchers pinpoint mutations that make cancer cells deadly and develop customized drugs to target these mutations. UNM Cancer Center leadership believes that genome sequencing may be offered to individual patients at the Center within three to four years.

**Harvard Foundation Distinguished Scientist Award** | In April, Maggie Werner-Washburne, PhD, won the Harvard Foundation’s 2011 Distinguished Scientist Award in recognition of her exceptional scholarship and service in the biological sciences. Dr. Werner-Washburne is an internationally renowned yeast cell researcher whose work has deepened scientific understanding of quiescent cells in the stationary phase of yeast and other organisms — a phase that holds clues to everything from aging to the genesis of cancer. She joins former Nobel Laureates and other famed recipients of the award. See full story on page 26.

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**Cancer Biology & Biotechnology**

<table>
<thead>
<tr>
<th>Program year</th>
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<tbody>
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<tr>
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<tr>
<td>Total program funding</td>
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Population Sciences

The Population Sciences research program investigates the striking differences in cancer patterns, incidence and outcomes among New Mexico’s multiethnic populations, and works to address these disparities through community-based research and outreach. In particular, program members seek to identify relevant genetic, environmental and social risk factors in rural, Native American and Hispanic populations to improve early detection and outcome. Recent achievements include:

$2 Million NIH Breast Cancer Disparities Grant | Hispanic women in New Mexico are 1.6 times more likely to die from breast cancer than their non-Hispanic white counterparts. The UNM Cancer Center is attacking this terrible disparity head-on, with the help of a five-year, $2 million grant from the NIH. Deirdre Hill, PhD, an epidemiologist and member of the UNM Cancer Center, has assembled a multidisciplinary team to study the socioeconomic, cultural and biological factors that impact the survival of Hispanic women who develop breast cancer. The team will look closely at the biology of breast cancer tumors in Hispanic women in an effort to identify tumor markers—substances found in tumor tissue or released from a tumor into blood, urine and other bodily fluids. These markers can guide treatment; for example, high levels of tumor markers may indicate a particularly aggressive cancer that requires a therapeutic approach different from that used for slower-growing tumors. Dr. Hill’s group will also examine the adequacy of the care that Hispanic women receive, including the time between diagnosis and first treatment. All of these efforts promise to improve prevention, screening and treatment strategies for Hispanic women, and yield a better understanding of breast cancer for the benefit of all women.

$1.5 Million NIH Breast Cancer Disparities Grant | Research shows that Hispanic women are at higher risk for poor-prognosis breast cancers, including triple-negative and HER2 diagnoses. The UNM Cancer Center has taken a step toward understanding and addressing this risk, thanks to a $1.5 million grant from the NIH’s Centers for Population Health and Health Disparities, awarded to the Center in collaboration with Seattle-based Fred Hutchinson Cancer Research Center. UNM Cancer Center member Linda Cook, PhD, is heading up the five-year joint initiative to investigate risk factors in Hispanic women and examine the relationship of these factors to the development of specific tumor subtypes. Prior to this project, very little research had focused specifically on cancer in Hispanic women. The UNM Cancer Center, with its excellent breast cancer program and service to New Mexico’s richly diverse Hispanic population, is the ideal institution to lead the charge.

NCI Supplemental Grant for Cancer Health Disparities | The Office of Community Partnerships and Cancer Health Disparities is expanding, thanks to a supplemental grant from the NCI, awarded as part of the UNM Cancer Center’s 2010 re-designation. The new grant provides $200,000 per year for up to four years (with annual competitive renewal) to the Office of Community Partnerships and Cancer Health Disparities team. The funds are being used to hire a community health educator to provide culturally competent cancer education programs in community settings. Education and prevention programs for all medically underserved populations, including Asians and African Americans, will be rolled out over time.
Hematologic Malignancies

The Hematologic Malignancies research program integrates basic, translational and clinical scientists investigating genetic mutations that affect gene expression, signaling and adhesion pathways, which can give rise to cancers of the blood. Program members seek to identify genetic abnormalities that may serve as new therapeutic targets, and translate their discoveries into new diagnostic and treatment approaches. Recent achievements include:

$14.5 Million NIH Systems Biology Grant | The UNM Cancer Center is now home to one of only 12 National Centers for Systems Biology, thanks to a five-year, $14.5 million grant from the NIH’s National Institute of General Medical Sciences. The New Mexico Spatiotemporal Modeling Center (STMC), led by Janet Oliver, PhD, brings together biologists, biophysicists, physicists, mathematicians, engineers and material scientists from UNM, Los Alamos National Laboratory and Sandia National Laboratories. Multidisciplinary collaboration is key in systems biology, an emerging field that seeks to understand complex interactions in biological systems using computational modeling and other new technological tools. STMC researchers are studying how cells interact in real time and space in an effort to better understand what events at the cellular level trigger cancer and other diseases. Their research builds on 20 years of investigation by Dr. Oliver and her team to discover the locations, interactions and biochemical modifications of molecules that transmit signals across cell membranes, work that has clarified cell function and created new avenues for discovering and developing cancer-fighting drugs. The STMC also serves to train a new generation of interdisciplinary researchers focused on quantitative, systems-level analyses of complex biomedical processes; to build and sustain an infrastructure to support systems biology research and training as a long-term area of scientific excellence in New Mexico; and to lead the advancement of women and minorities within the new discipline of systems biology. The STMC is the first center of its kind to be led by a woman and the only one in this region.

Biophysical Society Award | Earlier this spring, UNM Cancer Center member Diane Lidke, PhD, received the 2011 Margaret Oakley Dayhoff Award from the Biophysical Society. The award recognizes one outstanding junior woman scientist annually. Dr. Lidke’s work on the activation of the extracellular signal-regulated kinase (ERK) pathway, which plays a key role in cancers, was published in the Journal of Biological Chemistry last year. Her research at the UNM Cancer Center is helping scientists observe how therapeutic agents interact within the cell, a key step toward more customized and integrated drug design for cancer, allergies and other medical conditions.

Age Discrimination Impacts Leukemia Mortality Rates | UNM Cancer Center researchers in the Hematologic Malignancies and Population Sciences programs recently established a link between patient age and accessibility to imatinib for the treatment of chronic myeloid leukemia (CML). Their findings, published last August in the American Journal of Medicine, demonstrate that age discrimination has been a significant factor in mortality rates among elderly CML patients.

Targeted Therapy for Pediatric Leukemia | The UNM Cancer Center is leading the charge to discover and therapeutically target genetic mutations that increase relapse risk in Native American and Hispanic children with acute lymphoblastic leukemia (ALL), the most common childhood cancer. A team of researchers headed up by Cheryl Willman, MD, Director and CEO of the UNM Cancer Center, has identified mutations in a gene known as JAK, which codes for kinases (enzymes that function as biological on-off switches in cells). Further, the team has correlated these mutations with Native ancestry, using genomic analysis rather than self-reported ethnicity to determine ancestry with precision. For Native and Hispanic children with ALL, ancestry seems to be more predictive of outcome than any other genomic factor yet discovered. Targeted therapy – already begun in animal models – is the next step. See full story on page eight.
Women’s Cancers

The Women’s Cancers research program brings together laboratory and clinical scientists to investigate the causes, origins, behaviors, diagnosis and treatment of hormone-responsive cancers, including prostate cancer. Program members focus on breast, endometrial, ovarian, cervical and prostate cancer, seeking to dissect signaling pathways to identify novel targets for treatment, develop new screening and imaging approaches and translate discoveries into clinical and community settings. Recent achievements include:

$10 Million NIAID HPV Prevention Center Grant | Women's Cancers program members are part of a team led by Cossette Wheeler, PhD, UNM Professor of Pathology, that was awarded a $10 million grant from the National Institute of Allergy and Infectious Disease to establish an interdisciplinary Human Papillomavirus (HPV) Prevention Center, one of only five centers across the country to study sexually transmitted diseases. Thought to be the most common sexually transmitted virus in the world, HPV causes almost all cases of cervical cancer. Internationally renowned HPV researcher Michelle Ozbun, PhD, was among the first in the nation to produce the virus in the laboratory; thanks to the new grant, Dr. Ozbun and her team are now researching HPV in a revolutionary tissue-based model that mimics full-thickness skin. As part of the HPV grant, Dr. Ozbun’s colleague Bryce Chackerian, PhD, received $1.1 million to develop a new vaccine to prevent HPV (existing HPV vaccines are effective against two strains of the virus associated with cancer, accounting for perhaps 70 percent of all cases of cervical cancer). Animal tests of the new vaccine show extraordinary promise: thus far, the vaccine has proven effective against all HPV subtypes tested, suggesting it could virtually eliminate cervical cancer.

Nanoparticles to Detect Breast Cancer | Edward Flynn, PhD, and colleagues are developing a new technique to detect breast cancer cells using nanoparticles of iron oxide attached to certain antibodies. Injected into a patient, the nanoparticle “tagged” antibodies would recognize and bind to the HER2 receptor in cancer cells. (About 30-40 percent of breast cancers contain HER2.) The team has developed sensitive magnetic sensors known as SQUID that would then be used to indicate how many metal particles, and therefore how many cancer cells, are present, and where in the breast they are located. This pioneering new technology could allow doctors to detect breast cancers up to 2½ years sooner than conventional mammography.

Inflammatory Breast Cancer | A total of $6.2 million for joint research between MD Anderson Cancer Center and the UNM Cancer Center is fueling research into inflammatory breast cancer, a deadly form of breast cancer that can be difficult to detect. As part of this effort, Stefan Posse, PhD, and collaborators are developing 3D high-speed proton MR spectroscopic imaging technologies to map choline, a sensitive biomarker of breast cancer. This type of MRI screening could be used to stage the disease upon initial diagnosis and gauge the success or failure of treatment, lowering patient risks and side effects.

GPR30: New Imaging Applications | Eric Prossnitz, PhD, and longtime New Mexico State University collaborator Jeffrey Arterburn, PhD, are building on their groundbreaking discovery of a new type of estrogen-binding receptor, GPR30, to develop molecular probes that will locate and bind to the GPR30 target to help detect, diagnose and monitor tumors. The researchers have already pioneered a GPR30-targeted molecular probe; they are refining this probe to improve its ability to work in tandem with cancer imaging technologies. Beyond potential imaging applications, the “second generation” probe could also provide a foundation for developing highly targeted therapies for a range of women’s cancers.

Mobile Mammography: 500 Women and Counting | Eight of New Mexico’s 33 counties – home to more than 51,000 people – lack certified mammogram facilities. The UNM Cancer Center’s Mobile Mammography Program, led by Barbara Damron, PhD, RN, was developed to help bridge the access gap. Since its launch in October of 2009, the program has provided screening mammograms to nearly 500 eligible uninsured and underinsured women in Alamo, Cuba, Edgewood, Las Vegas, Peñasco and Tierra Amarilla; screening events continue throughout 2011.

Program Leaders:
Michelle Ozbun, PhD; Eric Prossnitz, PhD

<table>
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<th>Program year:</th>
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<th>2010</th>
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<td>Program members</td>
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<tr>
<td>Total program funding</td>
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| | 18 UNIVERSITY OF NEW MEXICO CANCER CENTER | 19 SUMMER 2011 EL OSO DE SALUD MAGAZINE |

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[Image: Time-lapse sequence showing a cell being infected by HPV. Red quantum dot-labeled viral particles travel down green filopodia, tentacle-like filaments that are formed by cells in response to infection.]
Clinical Working Groups

Across the UNM Cancer Center, eight tumor-focused clinical working groups meet once or twice each month to share research and ideas. Distinct from the Center’s multidisciplinary treatment teams, which oversee and coordinate patient care, working groups bring together surgeons, medical and radiation oncologists, key mid-level providers and scientists to ensure two-way translation of cutting-edge science – from the research laboratory to clinical trials and from the clinic back to the lab. The eight groups currently active at the UNM Cancer Center include: breast, gastrointestinal, genitourinary, gynecologic oncology, head and neck, hematological and lung. Here, we highlight news and accomplishments from the head and neck cancers and breast cancer working groups.

Head & Neck Working Group Uses HIV Drug to Treat Cancers | The head and neck team is the newest working group at the UNM Cancer Center, assembled by medical oncologist Julie Bauman, MD, MPH, an expert in aerodigestive malignancies, when she joined the Center in 2008. The group consists of surgeons, radiation oncologists, scientists, speech pathologists, dieticians and others, all whom work to make “bench-to-bedside” research and treatment a reality for the Center’s patients. Under the leadership of Dr. Bauman, the head and neck group received a grant from the American Cancer Society to study whether raltegravir, a drug approved by the U.S. Food and Drug Administration for HIV, could be effective in combination with cisplatin to treat head and neck cancers. Raltegravir works by inhibiting HIV integrase, an important protein used by cancer cells to repair their DNA after therapy and thereby resist treatment. HIV integrase shares many characteristics with Metnase, a protein discovered at the UNM Cancer Center that is overexpressed in cancer cells. The head and neck group’s pilot study of raltegravir and cisplatin, opened in January, is being conducted through the New Mexico Cancer Care Alliance. The clinical trial offers current eligible patients access to cutting-edge therapy for head and neck cancers, and will pave the way for new treatment options in the future.

Head & Neck Working Group Joins First HPV-specific Chemoradiation Trial | Rates of a head and neck cancer called oropharyngeal carcinoma are on the rise. While head and neck cancers are generally related to tobacco use, recent research has revealed that growing numbers of oropharyngeal tumors are actually caused by the human papilloma virus (HPV), thought to be the world’s most common sexually transmitted virus and the cause of almost all cases of cervical cancer. Because patients with HPV-positive oropharyngeal tumors have a survival advantage over those with tumors not linked to HPV, researchers are developing and testing new ways of treating patients with HPV-positive oropharyngeal cancers. Dr. Bauman and her team are on the cutting edge of this research. They are currently taking part in the nation’s first HPV-specific chemoradiation trial, designed to reduce long-term toxicities to speech and swallowing as compared to existing treatment methods.

Breast Working Group Leader Wins NCI Clinical Investigator Award | The breast clinical working group, led by breast cancer expert Melanie Royce, MD, PhD, develops and oversees dozens of breast cancer clinical trials, about 35 of which are open to eligible patients at any given time. This robust clinical trials program recently got a boost from the National Cancer Institute, which honored Dr. Royce with the NCI Clinical Investigator Team Leadership Award. The award – given to only 11 physicians nationwide – provides Dr. Royce with $50,000 per year for two years to expand her efforts in developing and directing breast cancer clinical trials at the UNM Cancer Center. The award is a valuable new funding source for physicians leading NCI-sponsored clinical trials, but who are not principal investigators – a group often overlooked by traditional funding mechanisms. Dr. Royce notes that the funding will benefit breast cancer patients in New Mexico, now and in the future, by helping researchers develop and refine new treatments.
A large and vibrant crowd squeezed into the UNM Cancer Center’s auditorium on a brisk afternoon in January to hear Siddhartha Mukherjee, MD, author of the best-selling book, The Emperor of All Maladies: A Biography of Cancer, and an oncologist at Columbia University Medical Center. For a spellbinding hour, Dr. Mukherjee told the story—or rather, the stories—behind the creation of his masterful biography, itself a collection of fascinating stories of patients and doctors around the world and across 4,000 years of history.

Lauded by reviewers, the book went on to win the 2011 Pulitzer Prize for non-fiction. Pulitzer committee members characterized it as “an elegant inquiry, at once clinical and personal, into the long history of an insidious disease that, despite treatment breakthroughs, still bedevils medical science.”

One hope in writing the book, Dr. Mukherjee said, was to put a human face on a terrible disease. “[It is] an attempt to enter the mind of this immortal illness, to understand its personality, to demystify its behavior,” he writes. This also proved to be his research method. Even the most technical articles in scholarly journals express a human story, he explained, if you know where and how to look. That story might reside just under the surface; go down a little further, said Dr. Mukherjee, and there are “ten layers” of stories about human suffering—and human bravery—in the face of the illness.

Dr. Mukherjee spoke at length about seeking a fuller history of one of the first cancer patients to receive chemotherapy (in 1947), a child known in medical annals by the initials “R. S.” Discovering the actual identity of the patient, a young boy from Massachusetts by the name of Robert Sandler who died during treatment, was a revelation, even more so was getting contacted by the boy’s twin brother and his mother, still alive in her eighties and grateful for the closure Dr. Mukherjee’s book provided.

Prior to his talk, Dr. Mukherjee spent time with Cheryl Willman, MD, Director and CEO of the UNM Cancer Center, enjoying lunch on-site and a tour of the facility. “Dr. Mukherjee is a delightful person, as well as a highly distinguished one,” said Dr. Willman. “We were thrilled to host him here and talk in depth about his work and ideas.”

“It is an honor to visit the UNM Cancer Center. I am so impressed with the atmosphere of caring and comfort in this place where important research is being done.”

Dr. Mukherjee’s visit, organized in partnership with Bookworks, drew many members of the local community, as well as friends of the Center and, of course, clinicians, faculty and staff. A lively Q&A session and bustling book signing followed his talk. Everyone, it seemed, had a cancer story—a human story—to share. The Center’s first level was alive with voices telling stories: the sound of hope.

\(\text{Background image: Dr. Siddhartha Mukherjee (photo by Deborah Feingold). First image: Dr. Mukherjee speaks to a full house. Second image: cover of The Emperor of All Maladies: A Biography of Cancer. Third image: Dr. Mukherjee signs books after the lecture.}\)
A new Siemens particle accelerator brings efficient radioisotope production and world-class molecular imaging to New Mexico

With radioisotope 18F FDG, time is of the essence. The medically useful particles have a half-life of just 111 minutes. Two hours after manufacture, half have decayed; wait an additional two hours, and only one-quarter of the original particles remain. Until recently, the isotope, which helps image and treat tumors, was produced in Phoenix and flown to the UNM Cancer Center. The six-hour lag from production to imaging meant that 88 percent of the radioisotope was lost along the way.

But an exciting new partnership with Siemens Healthcare has changed all that. Last March, Siemens opened a regional manufacturing and radiopharmaceutical facility in the basement of the UNM Cancer Center. Its centerpiece is a Siemens cyclotron, a 45-ton particle accelerator capable of rapidly producing 18F FDG and other radioisotopes for immediate use with the Center’s PET-CT imaging equipment just upstairs. Injected into patients, 18F FDG is taken up by cancer cells; imaging technologies render the radioisotopes, and thus the cancer cells, visible, allowing physicians to more accurately diagnose, stage and treat cancer.

The UNM Cancer Center is one of just a handful of cancer centers in the nation to have in-house access to a cyclotron. More than convenience and cost is at stake. Same-day ordering, manufacture and imaging means more scheduling flexibility for patients—some of whom drive hundreds of miles for imaging procedures—and the ability to perform emergency radiation therapy on patients with illnesses like obstructive lung cancer, where immediate action improves outcomes.

“Thanks to this collaboration with Siemens, we are giving patients the best functional imaging in the region,” says Cheryl Willman, MD, Director and CEO of the UNM Cancer Center. “Our on-site capabilities are truly state-of-the-art.” And it’s not just UNM Cancer Center patients who benefit, she points out. Radioisotopes used in imaging are less expensive and more accessible throughout New Mexico as a result. With Albuquerque as its hub, Siemens is expanding its Southwest distribution network to serve U.S.-based PET-CT sites within 300 miles of the city, an area that includes all of New Mexico, as well as parts of eastern Arizona and western Texas.

But the advantages of the partnership go even deeper. Siemens’ world-class facilities and expertise open up thrilling new possibilities for molecular imaging research at the UNM Cancer Center. Molecular imaging is an emerging field that uses radiopharmaceutical probes to image, in fine detail, cellular targets and pathways within an organism, as well as monitor the efficacy of treatments for disease. UNM Cancer Center researchers who discover new cancer targets now have the ability to work with their Siemens collaborators to develop corresponding probes that can be tested in pre-clinical studies and clinical trials within the Center.

The Keck-UNM Small Animal Resource is already making use of the Siemens facility for pre-clinical imaging studies. Discoveries that withstand rigorous pre-clinical testing will move into human clinical trials, giving UNM Cancer Center patients access to cutting-edge care through participation in clinical research. “The ultimate promise of this collaboration is to translate our researchers’ discoveries into new and more effective approaches to cancer treatment, all within our own institution,” says Dr. Willman. “Siemens is definitely accelerating our ability to do that.”

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In the past seven years, the program has produced 20 minority PhDs and, as of this fall, can claim 30 students in top graduate programs nationwide. In her role as “mentor-in-chief” of IMSD, Dr. Werner-Washburne emphasizes the critical importance of imagination and heart, coupled with intellect and hard work, in fueling great science.

In April, her own high-octane combination of all four resulted in arguably the most prestigious honor of her career to-date: she won the Harvard Foundation’s 2011 Distinguished Scientist Award, one of the nation’s top acknowledgements for scientific excellence and service. She joins a star-studded roster of past honorees that includes Nobel Laureates, the first African-American woman in space and the celebrated mathematics teacher who inspired the film *Stand and Deliver*. “It’s an amazing honor,” says Dr. Werner Washburne. “And, I hope, an effective platform for advancing one of the things I’m most passionate about: the importance of innovative and diverse perspectives in science. When diversity works, as it has in our program, it means that everyone’s voice is heard.”

Paying attention to what others fail to see is a theme that runs through her life and work. Her research into the stationary phase of yeast has uncovered an important cell differentiation process long overlooked by researchers focused on actively growing cells. As Dr. Werner-Washburne has shown, quiescence holds valuable clues about such fundamental biological processes as aging and the division and differentiation of stem cells. At any given time, most of the planet’s cells are “resting” in a quiescent state. Dr. Werner-Washburne’s groundbreaking research uses genomics and other techniques to better understand how quiescence develops and is regulated at a cellular level. In this way, her work provides insight into the activation, proliferation and potential for therapeutic de-activation of cancer cells. “Humans have used yeast for 6,000 years,” she says, “proving that fermentation is good for everything from making beer and bread to helping unlock the mysteries of cancer and aging.”

As the author of dozens of articles in leading scientific journals, Dr. Werner-Washburne says she has a “few more papers in her” before she hands off the baton to her successors and turns to new projects. “Lately, I’ve been wanting to write in a more relaxed fashion, finishing my papers with ‘Okay, everyone, take it from here!'” she says, laughing. Dr. Werner-Washburne, whose mother was Mexican, has always felt very lucky to be a biologist in New Mexico. “I think I’ve had one of the fullest and happiest careers of anyone I know. The ability to help students and work with great colleagues while being at the forefront of discovery has been incredibly rewarding,” she says. It’s a matter of “lifting as you climb,” she adds, invoking the adage cherished by Civil Rights leaders and others. Or perhaps – with a nod to the yeast cells she loves – lifting as you rise.

Ask Maggie Werner-Washburne, PhD, how she came to discover things about yeast that nearly every scientist since Louis Pasteur had missed, and she will likely reply: “I closed my eyes and thought about a yeast cell on a grape leaf in the New Mexican sun and how it survived.” This act of imaginative identification is the essence of her gift—and love—for science. It has propelled her to international renown for her pioneering work on quiescent cells in stationary-phase cultures of yeast—the flip side to their active, dividing stage, which has been the focus of most researchers’ interest in the tiny organisms. The role of imagination in science fascinates Dr. Werner-Washburne, who is a Regents’ Professor of Biology at the University of New Mexico and a member of the UNM Cancer Center; it has not only served her own work, but also inspires and informs the way she engages students in scientific inquiry.

Since 2004, Dr. Werner-Washburne has been directing UNM’s Initiatives to Maximize Student Diversity (IMSD), an NIH-funded mentoring program geared to diversifying the sciences by supporting graduate and undergraduate research experiences. In the past seven years, the program has produced 20 minority PhDs and, as of this fall, can claim 30 students in top graduate programs nationwide. In her role as “mentor-in-chief” of IMSD, Dr. Werner-Washburne emphasizes the critical importance of imagination and heart, coupled with intellect and hard work, in fueling great science.

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Monarch butterflies whirled into a crystalline sky on a blustery May day in 2007, carrying the hopes of those who gathered to witness the groundbreaking for the new UNM Cancer Center. At the dedication ceremony in June of 2010, they returned to us, as wishes granted and dreams fulfilled.

Universally recognized as good spirits, butterflies represent emergence, transformation, happiness and hope across many cultures. According to Native American legend, if you whisper an important wish to a butterfly and set it free, the wish will be granted by the Great Spirit in gratitude for the butterfly’s freedom. For the UNM Cancer Center, this legend has proved true: the delicate dream-carriers symbolically released four years ago have done their work, and a world-class treatment center for cancer patients throughout the region stands where spades of earth were turned in 2007.

The beautiful new building, open to patients since August of 2009, was dedicated the weekend of June 11-12, 2010. The festivities began with a moving and exciting evening titled “Healing through Arts and Medicine.” David Schmidly, PhD, President of the University of New Mexico, opened the evening and turned the program over to internationally renowned opera singer and cancer survivor Marilyn Horne, who shared stories of her triumphant battle with pancreatic cancer.

In an unscripted moment, Miss Horne turned to reveal a favorite garment that she had selected for the evening, a dramatic flowing silk cape adorned with richly colored butterflies that had seemingly returned to participate in the dedication. Although Miss Horne did not sing as part of the formal program, she offered an impromptu and unaccompanied rendition of the traditional Shaker melody, “Simple Gifts,” which was, indeed, a gift to everyone in the audience.
The evening featured stories of the history of the Cancer Center by Raymond G. Sanchez, President of the UNM Board of Regents; Paul Roth, MD, UNM Executive Vice President for Health Sciences and Dean of the School of Medicine; and Cheryl Willman, MD, Director and CEO of the UNM Cancer Center. In her remarks, Dr. Willman said, “Our new state-of-the-art facility is a welcoming and gracious healing environment where we not only provide cutting-edge cancer medicine, but also holistic, supportive care to our patients and their families. We are honored and privileged to present this new center as a gift to the people of New Mexico, who have given us so much support to create our programs and facilities.”

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of visual art. Danny Solis, New Mexico’s National Slam Poetry Champion, performed a piece written for the evening that included the (by now familiar) reference, “butterfly is guide, the path to hope.”

The highlight of the evening was the world premiere of Healing Ceremony, a special piece of music composed for the UNM Cancer Center by Marc Neikrug, Artistic Director of the Santa Fe Chamber Music Festival. The piece was performed by Maestro Guillermo Figueroa and the New Mexico Symphony Orchestra with opera stars Susan Graham and Matthew Worth as soloists. The spare yet richly textured orchestration created a contemplative backdrop for the text, which is rooted in natural elements that transport the listener to a place of tranquility, receptiveness, balance and healing. A recording will soon be released from E1 Entertainment.

The dedication ceremony continued the next morning, culminating with a ribbon-cutting attended by Governor Bill Richardson and many other dignitaries. Guests were offered a behind-the-scenes look at how the most technologically advanced cancer care can be delivered in a serene and beautiful space. The tour began at the main entrance, near a striking painting by the acclaimed artist Dan Namingha. The painting features, yes, butterflies! Miraculously, this recurrent theme was not planned; it emerged from the collective creative spirits who participated in the project. Fortunately, the Center’s gossamer messengers now have a permanent home where they await their missions: lifting up the hopes, wishes and prayers of all who visit the UNM Cancer Center.

AWARD-WINNING ARCHITECTURE


HEALING CEREMONY PROGRAM SPONSORS

Weekend made possible in part by:
Siemens Medical Solutions USA, Inc.
and PETNET Solutions, Inc.

Healing Ceremony dedicated in loving memory to Gwendolyn Rule by:
Ronald C. Rule and Family

The following performers donated their time for this performance:
Maestro Guillermo Figueroa
Susan Graham
Marilyn Horne
Danny Solis
Matthew Worth

Matthew Worth, Susan Graham, composer Marc Neikrug and Maestro Guillermo Figueroa take a bow after the world premiere performance of Healing Ceremony (performance photos by Robin Riolo).
This morning I woke in the darkness cell phone alarm barking at me to “Fight the power, fight the power,” Chuck D swinging words like hammers reminding me that things worth living for are worth the battle.

I am a stranger to this war, but not to combat.

I rose up with battle in her heart—
someone who loves someone who has cancer,

a brother, a wife, a daughter, a friend,
a husband, a grandson, a lover

I rose up from the heart—
rose up determined to fight this thing
rose up ready to defeat
these insidious routines attenuating themselves to survival

cells becoming cells becoming cells

savage and mute multiplication in the darkness

of bone of limb—
of marrow...

I walked through the fear and knew this,
you will not walk alone.

There are those who will fight by your side,
with gamma knives and isotopes,
with meticulously gathered and analyzed data

and elekta machines,
with four dimensional electron calculations and love...

Yes, look upon this field,
it is yours.

Look upon those that fought by your side
with all the courage and knowledge and technology they could muster

they are your true allies.

Know that there isricing the joy...
recipient of a gift that will make a transformational
difference in many, many lives for years to come,”
says Cheryl Willman, MD, Director and CEO of
the UNM Cancer Center. “As Victor and his family
understood so well, the research we do translates
into new and better diagnostic tools and treatments
for patients and, ultimately, moves us
closer to finding cancer cures.”

The Surface family’s gift is already
having an impact. The Center has just
hired its first Surface-endowed chair,
Alan Tomkinson, PhD, an expert in
DNA repair and epigenomics from the
University of Maryland Greenebaum
Cancer Center. Dr. Tomkinson will join
UNM later this summer as the Vice
Chair of Research in the Division of
Hematology/Oncology, where he
will work to expand the Center’s early-
phase clinical trial program. A basic
scientist with an increasingly transla-
tional focus, Dr. Tomkinson investigates
the molecular mechanisms of DNA
replication, DNA repair and genetic
recombination. In particular, he is study-
ing the cellular role of DNA ligases in
DNA joining, an essential common
step in these DNA transactions. Ligase
mutations and other defects in the
shared pathways of replication, repair and recombina-
tion can be a prelude to cancer.

Two Surface-endowed professors have also
been named in recent months. Vittorio Cristini, PhD,
a leading expert in the mathematical modeling of
cancer, was hired from MD Anderson Cancer Center
late last year. Named the Victor & Ruby Hansen
Surface Professor in Molecular Modeling of Cancer,
Dr. Cristini joined UNM as a Professor in both the
Departments of Pathology and Chemical Engi-
neering. He is a member of the Cancer Biology &
Biotechnology research program, as well as the
New Mexico Spatiotemporal Modeling Center at
the UNM Cancer Center. As a physical oncologist,
Dr. Cristini develops accurate, data-
rich mathematical models of cancer
progression to represent, investigate
and predict tumor growth and tumor
response to treatment.

Ashwani Rajput, MD, a physician-
researcher specializing in gastrointes-
tinal malignancies, was recruited from
Roswell Park Cancer Institute to head
up the Division of Surgical Oncology
at the UNM Cancer Center and serve
as the Victor & Ruby Hansen Surface
Professor in Gastrointestinal Cancers.
Dr. Rajput focuses on identifying and
characterizing molecular targets that
contribute to colon cancer, he is also
active in population science initiatives
aimed at preventing and controlling
cancer at the community level.

“Thanks to the generosity of the
Surface family, we have brought three
outstanding researchers on the cutting
dge of their fields to New Mexico,”
notes Dr. Willman. “We are creating a total of 10
new endowed research positions, and are recruiting
more top faculty with expertise in breast and women’s
cancers; hematologic malignancies; cancer preven-
tion and cancer health disparities; molecular thera-
peutics and drug discovery; and DNA repair and
epigenetics. It’s an exciting time for us, and I know
Victor would be thrilled to see our progress.”

A $9.5 million donation from the Surface Family
Trust is changing the face of cancer research
and treatment at the UNM Cancer Center

A $9.5 million donation from the Surface Family
Trust is changing the face of cancer research
and treatment at the UNM Cancer Center. The gift is one of extraor-
dinary generosity: it marshals more than $9.5 million
in funds to establish endowed chairs and professor-
ships for cancer research at UNM. The Surface
Family Trust is the creation of the late Victor Surface,
a renaissance man with a keen interest in cutting-edge
cancer research, and his wife, the late Ruby Hansen
Surface. (Read more about the Surface family and
their legacy, including daughter Carolyn Surface’s
contributions, on page 55.)

“We are incredibly proud and grateful that the
Surface family chose UNM Cancer Center as the

Two New Oncologists Join Our Las Cruces Team

Two physicians have joined the UNM Cancer Center’s team in Las Cruces, where the Center partners with Memorial Western Reserve University and completed his fellowship at the Roswell Park Cancer Institute.

Thomas Schroeder, MD, a board-certified radiologist, completed his residency at Baylor College of Medicine.

William Thompson, MD, a board-certified radiologist, was trained at the UNM School of Medicine.

Three Outstanding Surgical Oncologists Recruited

Katherine Morris, MD, a specialist in liver, pancreatic and gastrointestinal tumor surgery, and Itzhak Nir, MD, a specialist in liver and pancreatic surgery, both join UNM from Memorial Sloan-Kettering Cancer Center, where they completed their fellowships.

Ashwani Rajput, MD, a surface-endowed professor (see page 35), joins the UNM Cancer Center as Chief of Surgical Oncology. A specialist in gastrointestinal malignancies, he was trained at Case Western Reserve University and completed his fellowship at the Roswell Park Cancer Institute.

Two New Oncologists Join Our Las Cruces Team

Two physicians have joined the UNM Cancer Center’s team in Las Cruces, where the Center partners with Memorial Medical Center to offer world-class care to New Mexicans in the southern part of the state.

Ashwani Rajput, MD, a surface-endowed professor (see page 35), joins the UNM Cancer Center as Chief of Surgical Oncology. A specialist in gastrointestinal malignancies, he was trained at Case Western Reserve University and completed his fellowship at the Roswell Park Cancer Institute.

Substantial Growth in Our Radiation Oncology Team

We’ve recruited four new radiation oncologists. Benny Liem, MD, board-certified in radiology, completed his residency at the Oregon Health and Science University and graduated from Baylor College of Medicine.

Sagus Sampath, MD, joins the UNM Cancer Center from the University of Utah Huntsman Cancer Institute, where he completed his residency.

Thomas Schroeder, MD, a board-certified radiologist, completed his residency at Baylor College of Medicine.

William Thompson, MD, a board-certified radiologist, was trained at the UNM School of Medicine.

Eight UNM Scientists Tapped to Join Cancer Center

The UNM Cancer Center tapped eight scientists from departments across UNM to join its research programs this spring. Natalie Adelphi, PhD, Department of Biochemistry and Molecular Biology, is using targeted magnetic nanoparticles to develop new methods for cancer detection and therapy, with ongoing work related to breast and ovarian cancer and leukemia.

Alexandra Chigaev, PhD, Department of Pathology, is researching the role of adhesive interaction in the regulation of cell proliferation, survival and mobilization, particularly that of VLA-4, a major adhesion molecule that is expressed on hematopoietic progenitor cells.

Jennifer Gillette, PhD, Department of Pathology, investigates the complex microenvironmental factors, such as cytokines and extracellular matrices, that promote cancer progression.

Robert Francis, MD, a board-certified hematologist and medical oncologist, completed his fellowship at the University of Florida/Shands Cancer Center and Professor of Molecular Genetics and Microbiology.

Dennie Jones, MD, an international authority on blood cancers, is now Chair of the Department of Hematology/Oncology at the University of Vermont School of Medicine. She also serves as Interim Director of the Vermont Cancer Center.

Claire Verschraegen, MD, a medical oncologist who directed many of the UNM Cancer Center’s early-phase clinical trials, is now Chief of the Division of Hematology/Oncology at the University of Vermont School of Medicine. She also serves as Interim Director of the Vermont Cancer Center.

Thomas Schroeder, MD, Benny Liem, MD, William Thompson, MD, Sagus Sampath, MD, Itzhak Nir, MD, Katherine Morris, MD, Ashwani Rajput, MD, William Adler, MD, and Robert Francis, MD.

UNM Cancer Center Physicians Recruited for National Leadership Roles

Three outstanding UNM Cancer Center physicians stepped into national leadership roles at cancer centers around the country this spring. We congratulate them and wish them well, and offer our gratitude for their service to the people of New Mexico.

Robert Hromas, MD, an international authority on blood cancers, is now Chair of the Department of Medicine at the University of Florida/Shands Cancer Center and Professor of Molecular Genetics and Microbiology. He moved into the position after eight years at UNM, where he served as Deputy Director of the UNM Cancer Center and Chief of Hematology/Oncology at the School of Medicine’s Department of Internal Medicine.

Claire Verschraegen, MD, a medical oncologist who directed many of the UNM Cancer Center’s early-phase clinical trials, is now Chief of the Division of Hematology/Oncology at the University of Vermont School of Medicine. She also serves as Interim Director of the Vermont Cancer Center.

Dennie Jones, MD, a lung cancer expert, joined the University of Kentucky Markey Cancer Center as Deputy Director, responsible for its clinical outreach, research and education programs. He also serves as Medical Director of the Markey Cancer Center Affiliate Network.
Art plays a special role in healing. Thanks to the generosity of New Mexico’s artists and art collectors, patients at the UNM Cancer Center are surrounded by works of art that embody the strong and hopeful spirits of their creators. In the pages that follow, we introduce you to nine distinguished artists and artistic collaborators whose works form the core of our collection. Their life stories and thoughts on the relationship between creativity and healing add another layer to the gift of their art.

Dan Namingha

A large canvas of great beauty graces the main entrance to the new UNM Cancer Center. Serving as a symbolic point of entry, the canvas is divided, top to bottom, by a line of balance – between the physical and spiritual worlds and between illness and wellness. Entitled Duality, the painting is the creation of internationally renowned artist Dan Namingha, whose works are in significant collections worldwide.

Namingha, a member of the Hopi-Tewa tribe, attended the Institute of American Indian Arts, the University of Kansas and the American Academy of Art in Chicago. He has been exhibiting professionally as a painter and sculptor for nearly 40 years. Namingha created Duality especially for the UNM Cancer Center, donating the piece in dedication to his sister-in-law, Mary Martha Trujillo, who died from ovarian cancer.

Duality is rooted in ancient Hopi-Tewa symbols. The Hopi Pueblo is surrounded by sacred sites that are often situated near natural springs and pools. Altars by these pools allow those attending to their spiritual lives to use the waters for ritual purification. Butterflies and dragonflies are drawn to the reeds and cattails that grow at the waterside. Both insects are thus powerful symbols of healing in Hopi culture, and are prominently featured in Namingha’s painting. On the right side of his canvas, white and blue butterfly maiden figures stand, stark and sentinel-like, amid a flurry of brightly colored wings.

Despite its debt to traditional Hopi-Tewa symbols, Duality is universal in its appeal and accessible to people of all faiths and world views. The sense of balance and harmony, the connection to the natural world, with its themes of renewal and sustenance, and the spiritual dimensions represented by water, mists and the cosmos all resonate with a wide audience. Namingha deliberately omits some cultural details and uses partial figures and images to convey the essence or outline of a form, giving viewers a glimpse of the Hopi-Tewa people, yet also inviting those outside the culture to make meaning through their own frames of reference.
“Though the figure in York makes this elusive quality exquisitely real in the Star Liana York strength is just as important as any other therapy or danger. In exceptional generosity of Lucy and Paul Roth (dis- we may only take its full measure in times of difficulty ing at once as homage and inspiration. The sculp- work and were moved to donate the piece last fall. “When facing a life-threatening illness like cancer.” says York. “I believe tapping into this challenges,” says York. “I believe tapping into this strength is just as important as any other therapy when facing a life-threatening illness like cancer.”

In this way, Distant Thunder embodies the spirit of the Center’s patients, families and providers, serv- ing as once as homage and inspiration. The sculp- ture came to the UNM Cancer Center thanks to the exceptional generosity of Lucy and Paul Roth (dis- tinct from UNM’s Dr. Paul Roth), who collect York’s work and were moved to donate the piece last fall. “Though the figure in Distant Thunder appears to be running away from danger,” the Roth’s say, “she can also be seen as looking to a better tomorrow – a fitting symbol of hope.” Plans are now underway to install the new seven-foot-tall “symbol of hope” in a landscaped setting at the Center’s main entrance.

The quiet intensity of Distant Thunder reflects York’s extraordinary skill and a distinctive artistic vision that seeks the universal through the particular. “It’s by realizing our uniqueness that we begin to connect to everything around us,” says York, who lives with her artist husband in “Georgia O’Keeffe country” near Abiquiu. Named a leading artist of the Southwest by Southwest Art magazine and rep- resented by galleries across the region, York focuses her work on the area’s people and animals. She moved to New Mexico from Maryland in 1985, not so much for the landscape or culture, she admits, as for access to a wonderful foundry. “But what I’ve found here is an unending source of inspiration.”

**Gene and Rebecca Tobey**

Just outside the west entrance of the new UNM Cancer Center, a striking, six-foot-tall bronze bear fountain greets visitors. This sculpture, titled The Gift, depicts a standing grizzly bear pouring life-giving water from his outstretched paws. Created in 2005, The Gift is the final collaborative work of Gene and Rebecca Tobey. Gene was a remarkable artist and former UNM Cancer Center patient who lost his fight against leukemia in 2006. Gene’s wife and partner in art, Rebecca, felt compelled to place the sculpture at the UNM Cancer Center as a mono- ment not only to her husband, but to all those who fight cancer.

But Rebecca’s commitment to this cause has even deeper roots. Her father, Arthur C. Upton, MD, was a radiation pathologist and Director of the National Cancer Institute from 1977 to 1979, and she herself has been treated for colon cancer at the UNM Cancer Center.

It was while sitting in the chemotherapy room with Gene that Rebecca saw the need to embrace something beautiful in such dark times. “Over those long months, I became really aware of how impor- tant your surroundings are and how, when you or someone you love has cancer, you’re confronted with the need to find something beautiful in the course of the day,” Rebecca says. “For us, it was the beauty of the people who were taking care of Gene and me. They were wonderful.”

**Star Liana York**

Inner strength: it’s a capacity we all possess, yet we may only take its full measure in times of difficulty or danger. In Distant Thunder, the newest art acqui- sition at the UNM Cancer Center, sculptor Star Liana York makes this elusive quality exquisitely real in the face and figure of an Apache woman preparing to protect herself and her child from harm. “The piece is about drawing on your inner strength to meet life’s challenges,” says York. “I believe tapping into this strength is just as important as any other therapy when facing a life-threatening illness like cancer.”

In this way, Distant Thunder embodies the spirit of the Center’s patients, families and providers, serv- ing as once as homage and inspiration. The sculp- ture came to the UNM Cancer Center thanks to the exceptional generosity of Lucy and Paul Roth (dis- tinct from UNM’s Dr. Paul Roth), who collect York’s work and were moved to donate the piece last fall. “Though the figure in Distant Thunder appears to be running away from danger,” the Roth’s say, “she can also be seen as looking to a better tomorrow – a fitting symbol of hope.” Plans are now underway to install the new seven-foot-tall “symbol of hope” in a landscaped setting at the Center’s main entrance.

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**Irby Brown**

Two paintings in the education wing of the UNM Cancer Center radiate the soft glow of early morning sunlight on snow. “It gives you the feeling of rest,” says their creator, Irby Brown, considered one of the finest artists ever to paint the high country of northern New Mexico and Colorado. “If the composition of a paint- ing is good and creates a unity of rest or composure, then it undoubtedly carries a healing element.”

With this in mind, Brown painted White Aspens for the UNM Cancer Center and donated it and another snow scene, Morning Enchantment, to the Center in 2010. Both reflect his longtime love of snow, inspired by a print in his childhood home in Texas. “Yes, I studied in Paris, on the Left Bank,” Irby wryly notes. “That would, of course, be Paris, Texas, and it was the left bank of the Red River.” In fact, Brown began his art training at the age of nine, working under artist Golden Alexander. After returning from military service overseas, he entered the Dallas Art Institute in 1948. Brown and his wife moved to Santa Fe in 1984, where he honed his talent for capturing the colors and mood of the desert, celebrated in the magazines Art of the West and Southwest Art.

Brown took up the cause of fighting cancer with art after his own cancer diagnosis 17 years ago, and in honor of the loved ones his wife Pat has lost through her life. He becomes completely focused when touching brush to canvas. “All worries and thoughts dissolve,” he says. For those who have the privilege to enjoy his paintings, the cool healing light of sun and snow works a similar magic.
by Dorothy and Larry Rainosek, is hanging in a place of honor in the Radiation Oncology waiting room. Taking inspiration from his childhood near the Sandia Pueblo, Nowlin paints mythical images of humanity’s universal journey in search of light and truth. With subject matter gathered from his imagination and personal experience, he creates scenes of Native Americans traveling through mysterious landscapes to arrive at undefined destinations. All of Nowlin’s paintings are done with a spiritual landscape in mind. They explore the journey of life, its challenges, decisions and many paths. Nowlin respects the journey of cancer patients and wants to help lead them to the light. “Always to the light. Just as the figures in my art travel. Their journey leads to better lives and times. Art has been my salvation. I am able to live – for a while – inside my paintings. And I’m happy to bring this spirit place to others.”

Leshek Zavistovski

Leshek Zavistovski’s gift of sculpture to the UNM Cancer Center, titled simply Hope, reaches gracefully to the sky near the main entrance. The initial sketch for the piece grew from Zavistovski’s own experience as a cancer patient sitting in a chemotherapy station at the Center. Born in Warsaw, Poland, Zavistovski studied both cello and painting as a child. At the age of 21, he became the youngest member of the Warsaw National Philharmonic Orchestra. After immigrating to the U.S., he was chosen as a principal cello of the American Symphony under Leopold Stokowski. In 1966, he joined the Metropolitan Opera Orchestra. Two years later, Zavistovski married violinist Toni Rapport and together they formed the Bergson Trio. After very successful musical careers, he and his wife made their home in Santa Fe, where he became immersed in creating large, contemporary, minimalistic sculptures. For Zavistovski, creating is healing. When he was diagnosed with lymphoma, he remembered hearing frightening stories about poor survival rates. But he said to himself and those around him, “No way – I’m going to fight this. Maybe old Leshek is not going to be, but the new Leshek is going to be.” He immediately set to work, and remarkably, completed the first half of the sculpture during his course of chemotherapy.

Art, Zavistovski believes, offers a way out of one’s self, and out of one’s disease. “When you look at a work of art, or listen to music, the chemistry of the brain acts in a positive way, and the positive inspiration helps with healing.”

John Geldersma

For John Geldersma, paying close attention to nature is a calming act. His two installations at the Cancer Center reflect and nurture that calm. Prayer Sticks, made of aspen wood that has been burned and painted in oil enamel, stand quietly in the main lobby. Spirit Poles, also made of burned aspen, welcome visitors to the entrance of the Meditation Room. Each of the poles is topped with a different carving, as a group, they represent the sun, moon and stars. Geldersma says if they were arranged outside, they would be aligned with the summer and winter solstices.

Born and raised in New Orleans, Geldersma earned a BFA from the University of Southwestern Louisiana (now the University of Louisiana) and an MFA from Rutgers University in New Jersey. He taught in the Fine Arts Department at the University of Southwestern Louisiana for 20 years. Since the mid-1960s, he has exhibited widely throughout the United States and Europe. In 2008, at the age of 65, John was diagnosed with colon cancer. Now cancer free, he is very enthusiastic about giving back to the cause. He derives perspective and solace through his connection to the natural world, and through his art, which grounds him in nature. The physical activity is good, he says, and in paying attention to the work, you learn more about yourself. Creating is a process of discovery, replayed when viewers enjoy his work.

B. C. Nowlin

B. C. Nowlin’s piece, We Are Here, is a painting with a sense of mystery, and healing. “We are all on a journey,” says Nowlin. “We all want to move from the darkness, in the foreground, to the distant, hopeful light.” Nowlin, an internationally known artist whose works are in various celebrity collections, created We Are Here in 2010 especially for the Cancer Center and in memory of his parents, who both died of lung cancer. The painting, sponsored by Dorothy and Larry Rainosek, is hanging in a place of honor in the Radiation Oncology waiting room. Taking inspiration from his childhood near the Sandia Pueblo, Nowlin paints mythical images of humanity’s universal journey in search of light and truth. With subject matter gathered from his imagination and personal experience, he creates scenes of Native Americans traveling through mysterious landscapes to arrive at undefined destinations. All of Nowlin’s paintings are done with a spiritual landscape in mind. They explore the journey of life, its challenges, decisions and many paths. Nowlin respects the journey of cancer patients and wants to help lead them to the light. “Always to the light. Just as the figures in my art travel. Their journey leads to better lives and times. Art has been my salvation. I am able to live – for a while – inside my paintings. And I’m happy to bring this spirit place to others.”
performing and seeing his listeners light up as though “the sun is glowing in their faces.”

Rick (below left) and his brother Robert (below right) both feel that a craftsman’s soul is revealed in the sound of the instrument, which is why all their guitars are painstakingly made by hand. Guitar making will never make them rich, they admit, but Rick places his hand over his heart and says, “You gotta be rich right here.”

The Pimentel Family

In 1951, Lorenzo Pimentel and his wife Josefina established Pimentel Guitars, and their instruments have achieved international acclaim for decades. Until his recent passing, Lorenzo and his four sons Rick, Robert, Victor and Agustin worked side by side, handcrafting some of the world’s finest guitars from their workshop in Albuquerque. One model, “The New Mexican Sunrise,” has been designated the Official Guitar of the State of New Mexico.

The Pimentel Family created a beautiful custom guitar for the UNM Cancer Center that now rests in a handmade case in the main lobby. They named this version of their Grand Concert Classical Guitar “El Oso” in honor of the Cancer Center’s iconic image of the Healing Bear, which is inlaid on the guitar’s headstock, as well as on the beautiful cabinet that houses it.

The inspiration for this wonderful gift arose from the Pimentels’ family history of cancer. Both Lorenzo and his wife suffered from the disease. Son Rick Pimentel believes that playing and listening to music is an inherently therapeutic experience. He loves performing and seeing his listeners light up as though “the sun is glowing in their faces.”

Judith Kingsley

Judith Kingsley is intimately familiar with the anguish of losing those you love to cancer. She has faced the loss of two husbands and two daughters to the disease, yet she is a model of perseverance, courage and faith in the face of personal tragedy. Kingsley’s oil painting, Sun Breaking Through, captures the breathtaking moment when the sun parts the clouds and shines its healing light. She believes cancer patients live this moment all the time, moving through dark days to the promise of the sun’s return.

During a particularly difficult time during one of her daughter’s struggles with cancer, there were days when Kingsley would feel incredibly depressed. When she started painting, however, her spirits lifted. She recently encountered a quote that she believes explains why: “Art is the knowledge of mind and soul.” This can be true for appreciative viewers, too. “I hope that if a person’s soul is involved when they view the painting and is uplifted by its spiritual quality, then my efforts have brought healing and I have been personally rewarded, as well,” says Kingsley. “I will have been doing God’s work.”

The UNM Cancer Center is grateful to the following artists, whose works are represented in our collection:

Tony Abeyta
Mona Benson
Iry Brown
Arturo Chavez
John Geldersma
Ferrin Hernandez
Judith Kingsley
Michael Noviello
Dan Namingha
B.C. Nowlin
The Pimentel Family
Gene and Rebecca Tobey
Marilyn Yates
Star Liana York
Leshek Zavistovski

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Peggy Favour
Chris Fenton
Mary Geuer
Pam and Don Michaels
Edwina Milner
Rae Ann Paden
Cheryl Willman, MD

The following companies and individuals have contributed to the Art in Healing Fund:

Rahale May Kellar, McNamara Architecture, PC
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Claudia and Robert Moraga
Nira M. and John L. Wright
Barbara Dameron, PhD, and J.R. Dameron, MD
Elizabeth P. Upton, PhD, and Arthur C. Upton, MD
Lucy and Paul Roth
When you give to the UNM Cancer Center, you give hope to all New Mexicans affected by cancer. From bringing the best cancer care to the people of New Mexico to finishing our new facility to expanding our world-class research, we need your ongoing support. You can make a gift—and a difference—by:

• Using the giving envelope in this publication
• Donating online at cancer.unm.edu/you-can-help
• Giving through the United Way by designating all or part of your contribution to the UNM Cancer Center
• Honoring loved ones with a donation in their name
• Becoming a member of our El Oso de Salud Society by giving $1,000 or more during the year
• Discussing naming opportunities and other high-impact gifts with our Director of Development
• Including the Cancer Center in your estate planning

To learn more about becoming a donor, please contact Kenneth Thompson, UNM Cancer Center Director of Development, at 505-272-4443 or KenThompson@salud.unm.edu. Please note that the UNM Foundation handles gifts to the UNM Cancer Center—checks should be made payable to The UNM Foundation.
重大捐赠

捐款人及其家属或机构的捐赠，为新墨西哥大学癌症中心提供维持世界领先水平的奖学金。这里，我们以表格形式列出捐款人及其家属或机构的名称。

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Cowboys for Cancer Research, Inc.

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Endowed funds create a lasting legacy by supporting specific purposes in perpetuity through annual income on a gift of principal. Here we acknowledge the generous donors who provide this long-term support to our mission and goals.

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Maurice and Marguerite Liberman Distinguished Chair in Cancer Research
The John H. Sisk Endowed Chair in Clinical Oncology
The Victor A. Surface Endowed Chair in Cancer Research

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Scott Schroeder Memorial Fund

*deceased
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Klinger Constructors, LLC
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Insight Lighting
Hospital Housekeeping Systems
Presbyterian Church
Friends of UNM Cancer Center

Reporting period January - December 2010

A very generous gift from the Carl C. Anderson, Sr. and Marie Jo Anderson Charitable Foundation has funded a beautiful healing garden and pool, as well as a sophisticated radiosurgery suite with four of the most advanced radiation therapy machines. In addition to these gifts to the people of New Mexico, this remarkable Foundation has also funded projects for three of our outstanding cancer research scientists. The Foundation’s trustees, with direction from the Andersons’ daughter Jennifer Bird (pictured above in the healing garden that bears her parents’ names) believe their capital contribution to the UNM Cancer Center beautifully satisfies the spirit and intent of the Andersons’ generosity.

The Carl C. Anderson, Sr. and Marie Jo Anderson Charitable Foundation Healing Garden and Pool is located next to the main entrance, surrounded by stone benches and native plants to offer visitors a quiet spot for contemplation. “We wanted to create something beautiful to look at when a patient is coming in with a cancer diagnosis,” Bird said. “Providing compassionate healthcare to the population of New Mexico was very important to my parents. They would be pleased to know that this facility is now available.”

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Maralyn Budke bequests $2.5 million to create new research positions.

Although she never sought elective office, Maralyn Budke began an illustrious career in New Mexico government in 1959, when she joined the Legislative Finance Committee. She would ultimately serve as chair of this powerful Committee and would go on to serve as Chief of Staff for Governors Cargo and Carruthers. Many insiders referred to her as one of the most influential women in New Mexico politics.

While on the Finance Committee, she shepherded several major initiatives that led first to the creation of the UNM School of Medicine and later to legislation authorizing the Regents to lease what is now UNM Hospital in 1959, when she joined the Legislative Finance Committee. She would ultimately serve as chair of this powerful Committee and would go on to serve as Chief of Staff for Governors Cargo and Carruthers. Many insiders referred to her as one of the most influential women in New Mexico politics.

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As an anonymous donor honors Dr. Saiki with a $1.5 million endowed chair.

John H. Saiki, MD, one of the most respected clinical oncologists at the UNM Cancer Center, has been honored by a bequest from a long-time patient to create an endowed chair in his name. This anonymous $1.5 million bequest will create the John H. Saiki Endowed Chair in Clinical Oncology. When the chair is fully funded, it will be awarded to a physician who is known for excellence in patient care and teaching. This will be the first endowed chair at the UNM Cancer Center that is named for an existing faculty member and that specifically recognizes clinical excellence. The anonymous donor has this to say about Dr. Saiki: “As a clinician, he is outstanding. The point of establishing this chair in his name is to honor his career and to encourage and promote exceptional clinical achievement.” Dr. Saiki’s patients describe him as a dedicated, compassionate physician who provides the highest level of care for his patients. An incredibly humble person, he agreed to have the chair named in his honor only because it was championed so passionately by one of his patients.

The John H. Saiki Clinical Oncology Endowment Fund has been established at the UNM Foundation. If you are interested in contributing to this fund, please contact our Development Office at 505-272-4443 or via email at KenThompson@salud.unm.edu.
Victor once joked, citing his hope that future generations will enjoy lives as long and as rich as his. Thanks to his vision and generosity, they very well may.

The Surface family donates more than $9.5 million to cancer research.

Born in 1913, Victor Surface was a true renaissance man who ultimately chose New Mexico as his home. A writer, painter, printer, baseball player and outdoorsman, he led a long and remarkable life. A large portion of Victor Surface’s estate was used to create the Surface Family Trust. Gifts from the trust have created several important treatment and research chairs at the UNM Cancer Center (read about the outstanding researchers recruited to date on page 34).

When asked why he wanted to support cancer research, he said, “My wife, Ruby Hansen, Surface, died of cancer, her mother died of breast cancer, and my standing researchers recruited to date on page 34). A large portion of Victor Surface’s estate was used to $9.5 million to cancer research.

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