



**Northridge Hospital
Medical Center**

A Dignity Health Member

Together
WE CAN
Fight Cancer

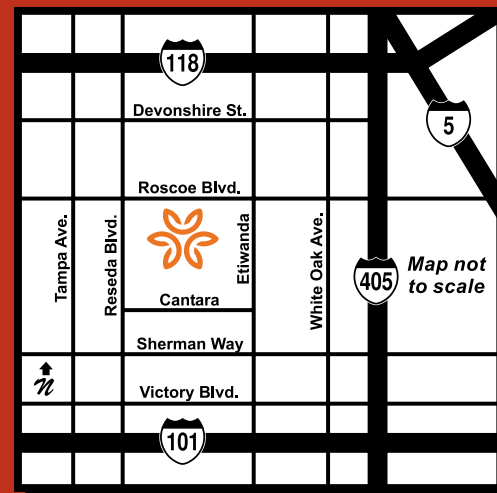
**2012 Leavey Cancer Center
Annual Report
for the year 2011**

The Leavey Cancer Center is fully-accredited by two prestigious organizations:



Northridge Hospital Medical Center is a nonprofit, community-based, 411-bed facility serving the San Fernando Valley for more than 55 years. With a Medical Staff of more than 800 physicians in nearly 60 specialties, we are pleased to provide patients with technologically advanced, safe, effective and compassionate care. But, what we are most proud of is the positive impact we've had on the lives of the patients we have touched.

Northridge Hospital is affiliated with **Dignity Health**, the fifth largest health system in the nation and the largest hospital system in California.



Northridge Hospital Medical Center
18300 Roscoe Blvd.
Northridge, CA 91328
Cancer Center: 818-885-5431
www.NorthridgeHospital.org/CancerCenter



Greetings from the Director and Chairman

Together **WE CAN** Fight Cancer

Northridge Hospital Medical Center's **Thomas and Dorothy Leavey Cancer Center** believes the "Big C" stands for "Can," as in "Together We CAN Fight Cancer." Nowhere in the San Fernando Valley will you find more leading-edge cancer technology and superior Oncology Specialists than at the **Thomas and Dorothy Leavey Cancer Center**.

- **We CAN** now locate and treat cancers so precisely with the most advanced technology, that outcomes are better, faster and less invasive than ever before.
- **We CAN** provide a healing environment that fosters integrative health and a sense of well-being.
- **We CAN** utilize molecular diagnostics and cancer therapy to tailor a treatment plan that's optimized for each patient.

Our team approach takes place through informal daily interactions of the doctors and through formal Cancer Conferences. By hosting multi-disciplinary conferences between Medical and Radiation Oncologists, Surgeons, Pathologists, Radiologists and other Specialists, the Leavey Cancer Center Specialists formulate the most appropriate, individualized treatment care plans. Our **Medical Oncologists** provide diagnosis, evaluation and treatment of all malignant disorders, including solid tumors and hematologic malignancies and treat patients with the most current anti-cancer drugs and treatment protocols available. Many of our Medical Oncologists are also involved with promising clinical research treatments.

With the recent redesign of the Leavey Cancer Center, the Harold & Carole Pump Department of Radiation Oncology became the most comprehensive treatment center in the San Fernando Valley. The Center provides an impressive selection of advanced treatment options such as the **Trilogy® Linear Accelerator Stereotactic System, Gamma Knife Radiosurgery, MammoSite®, IMRT, IGRT, Brachytherapy, Prostate Seed Implant and Molecular Diagnostics**.

Our Surgical Oncologists have the experience, expertise and access to the latest, most sophisticated surgical equipment including the **daVinci® Robotic Surgical System** to achieve the best possible outcomes. This highly sophisticated computer-driven surgical robotic tool, which is operated by surgeons, is praised for resulting in less pain, reduced risk of infection and speedier recoveries. Moreover, some of the most exciting and promising advances in cancer treatment today are in the field of **targeted therapy** when used with **chemotherapy**.

This 2011 annual report is a product of the efforts of many professionals who have contributed their expertise and energy to the improvement of cancer care in our community. This report reflects the activities of the Leavey Cancer Program for 2011. Thank you for your support.



J. Gary Davidson

J. Gary Davidson, MD
Medical Director,
Thomas & Dorothy Leavey Cancer Center



Afshin Safa

Afshin Safa, MD
Chairman, Cancer Committee



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2012 Leavey Cancer Center Annual Report for the year 2011

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Our Mission

Northridge Hospital Medical Center is dedicated to developing healthier communities by assuring access and facilitating compassionate quality healthcare service with a commitment to clinical and service excellence provided by caring professionals who respect the dignity of each individual.

Values

Northridge Hospital is committed to providing high-quality, affordable health care to the communities we serve. Above all else we value:

- **Dignity** - Respecting the inherent value and worth of each person.
- **Collaboration** - Working together with people who support common values and vision to achieve shared goals.
- **Justice** - Advocating for social change and acting in ways that promote respect for all persons and demonstrate compassion for our sisters and brothers who are powerless.
- **Stewardship** - Cultivating the resources entrusted to us to promote healing and wholeness.
- **Excellence** - Exceeding expectations through teamwork and innovation.



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The Leavey Cancer Center Program



*Bonnie Freitas, MD
Neuroradiologist*

The renowned Commission on Cancer has accredited Northridge Hospital's cancer program for more than 32 years! With decades of cancer experience, we know what patients need and want - comprehensive care all in one location. Northridge Hospital has developed the region's most complete cancer program.

Progressive Treatment Options

- **da Vinci Robotic Assisted Surgery** - Northridge Hospital Medical Center is the first facility in the San Fernando Valley and one of only 20 percent of hospitals in the U.S. to offer the da Vinci Robotic Surgical System. Used for prostate and some gynecological cancers, Surgeons gain seven degrees of motion that go beyond the limits of the human hand. The daVinci patient advantages include: shorter hospitalization, reduced pain, less blood loss and a lower risk of infection.
- **Trilogy Linear Accelerator Stereotactic System** - for image-guided radiation therapy and stereotactic radiosurgery. The Trilogy can treat cancer anywhere in the body by delivering a higher dose of radiation, resulting in fewer treatment sessions.
- **Gamma Knife Radiosurgery** - the Gold Standard in controlling brain metastases without the need for conventional surgery or whole brain radiation therapy.
- **BrainLAB Image** - guided Navigation System - for surgery of head and neck cancers.
- **Chemotherapy** - an expanded area that includes comfortable lounge chairs for patients and family or a choice of infusion suites equipped with an individual television with headset, DVD players, iPods and Wi-Fi for laptop access.
- **Advanced Imaging Services include:** PET/CT, Digital Mammography, 64-slice CT, Triphasic CT scanning and Angiography
- **Precise Radiation Therapy including:** MammoSite®, IMRT, Brachytherapy and Seed Implant





Supportive Services

- **Chapel and Healing Garden** – provides a nurturing and peaceful place for silence, reflection or prayer.
- **Electronic Medical Records** – in the Medical, Radiation and Surgical Oncology Departments making them completely film-free and paper-free.
- **Learning Library** – provides patients and their families with free information on a wide range of cancer topics. Internet access is also available and books and DVDs are available for purchase. A bilingual Patient Advocate is on hand for assistance in the Learning Library.
- **Look Good, Feel Better** – restores confidence by enhancing patients' appearance with make-up and wigs and educates them on their changing skin care needs.
- **Navigator Program** – a patient's point-of-contact concierge to ensure a smooth transition among hospital services.
- **Nutritional Counseling** – educates patients on how to optimize their nutrition to repair the effects of cancer treatments.
- **Pain Program** – ensures that patients who have pain are identified and treated appropriately and effectively while limiting their side effects.
- **Pet Therapy** – utilizes special therapy dogs to help reduce stress in patients.
- **Social Services** – helps patients with the many aspects of their lives beyond their physical concerns.
- **Spiritual Care** – offers a forum for our patients' faith, beliefs and values to be honored and to receive emotional and spiritual support.
- **Support Groups and Cancer Education** – presents an opportunity to share with and learn from others in similar situations.
 - **Breast Cancer** and **Brain Tumor** support groups
 - **Cancer Education** classes
 - **Bereavement Program** – supports patients and families through a compassionate, multi-faith Spiritual Care Program.
- **Supportive Care** – Supportive Care (Palliative Care) optimizes the patient's quality of life throughout the continuum of illness (for both curable and terminal illnesses). Supportive care addresses physical symptoms, plus a patient's emotional, social and spiritual needs, while also providing access to information for patients to make educated choices.



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Fight **Cancer**

Angie's Spa Therapeutic Cancer Care Foundation

Northridge Hospital is privileged to be one of only four hospitals in the nation selected by Angie's Spa to receive funding to provide free in-hospital massages for men and women undergoing chemotherapy, radiation and surgery. These services are designed to alleviate painful side effects, provide relaxation, enhance traditional treatments and give cancer patients a self-esteem boost.

In July 2011, Northridge Hospital received a one-year grant for \$36,000 for up to 120 therapeutic massages per month for both inpatients and outpatients undergoing cancer treatment.

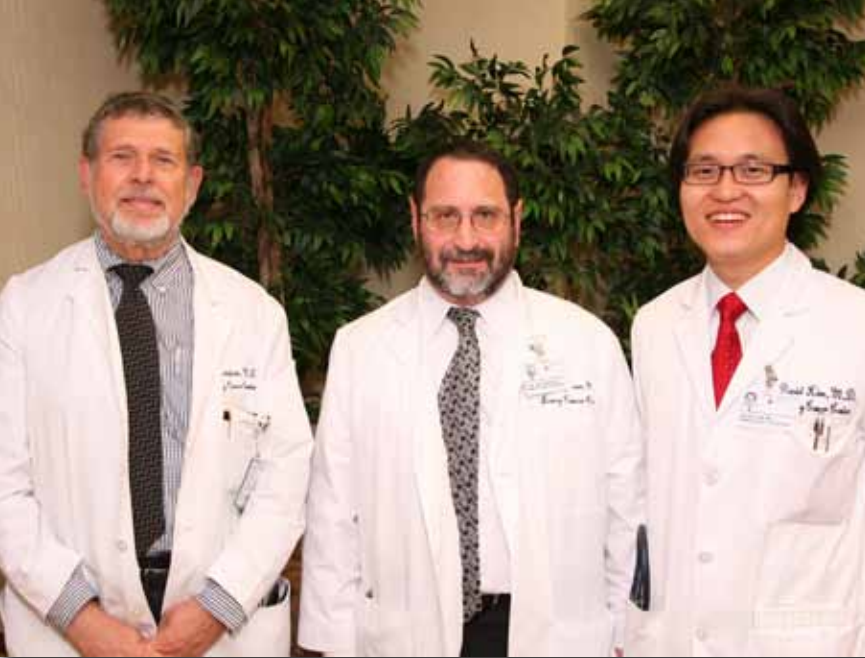
With this grant and additional funding raised by the Hospital, the program was able to increase massages from two to three days a week.

- 1,548 free massages were provided from July 2011 to April 2012.
- 75 percent of the massages are given to outpatients with the remaining 25 percent for inpatients.
- An average of 36 percent of the patients received massages at the Harold Pump Department of Radiation Oncology while an average of 46 percent received them in the Chemotherapy Department.
- The most popular massage is foot (54 percent) followed by neck and shoulder (39 percent).



- **Partnerships** with outstanding organizations that offer unique services such as:
 - **American Cancer Society** – Actively collaborates with Northridge Hospital Cancer Center to provide free additional supportive services, education and assistance to our cancer patients.
 - **Angie's Spa Therapeutic Cancer Care Foundation** – provides free in-hospital massages for men and women undergoing chemotherapy, radiation and surgery.
 - **Avon Foundation for Women** – funded the Outreach Navigator position to increase awareness of the life-saving benefits of early detection of breast cancer and the importance of annual screening.
 - **The Harold Pump Foundation** – has contributed more than \$4.2 million to the Hospital for cancer education, screening, services and equipment.
 - **Wellness Community** – enhances cancer patients' and their loved ones health and well-being by providing a free professional program of emotional support, education and hope.
 - **UniHealth Foundation** – awarded Northridge Hospital with a three year grant for an enhanced Interdisciplinary Supportive Care (Palliative Care) Program to assist patients with physical, emotional and psychosocial needs.
 - **weSpark** – offers a variety of free Mind/Body healing workshops to encourage self-expression, calm the mind and promote healing.





Oncologists: Sheldon Davidson, MD, Carl Singerman, MD, and David Kim, MD

Cancer Experts

Every patient not only benefits from their own physician, but from the collective expertise of the entire program's physicians and nurses.

J. Gary Davidson, MD

Medical Oncology, Leavey Cancer Center Medical Director

Walid Arnaout, MD

Liver and Pancreas Surgical Oncology Clinic Medical Director

Sheldon Davidson, MD, Medical Oncology

Bonnie Freitas, MD, Neuroradiology

David Kim, MD, Medical Oncology

Mi Kyung Ko, MD, Radiation Oncology

Harold Marks, MD, General Surgery

Marie McCombs, MD, Breast Imaging Radiology

Afshin Safa, MD, Radiation Oncology, Cancer Committee Chair

Daniel Schiffner, MD, Radiation Oncology

Carl Singerman, MD, Medical Oncology

Anil Wadhwani, MD, Interventional Radiology

Oncologists

In partnership with Northridge Hospital, *West Valley Hematology-Oncology Medical Group* (WVHOMG) provides the most up-to-date medical treatments in cancer care. WVHOMG doctors are Board-certified in Hematology and Oncology, and their distinguished affiliations include South West Oncology Group and the University of California, Los Angeles (UCLA) Cancer Network.

WVHOMG doctors are faculty members at UCLA. While working in conjunction with the Leavey Cancer team, these dedicated physicians also embrace a multifaceted, holistic approach that includes the latest therapies, clinical trials and symptom management.

Program Goals for 2012

- Programmatic goal: Implementation of chemotherapy clinic EMR.
- Clinical goal: Skin care education plan for radiation oncology patients.
- Continuing renovations of Cancer Center.
- Renovation of linear accelerator room to become a dedicated HDR suite and supportive care consultation room.
- Redesign and expansion of chemotherapy infusion room and relocation of chemotherapy pharmacy.
- Inpatient goals: Pre-printed chemotherapy order sets for inpatient chemotherapy.
- Educational goals: Increase number of Oncology Certified (OCN) RNs.

Radiation Oncologists

Cancer Care Consultants is a specialized Radiation Oncology physician group founded on the principle of using the latest medical and computer technologies. It is one of the largest groups of its kind in the area, providing treatment to over 1,200 cancer patients annually. Accordingly, they have been recognized and listed in the "Best Doctors in America" and "The Essential Guide to Los Angeles' Best Doctors."

Sub-Specialized Radiologists

Renaissance Imaging Medical Associates (RIMA) employs an extraordinary team of highly sub-specialized Radiologists. With this team, RIMA is able to offer distributed sub-specialty radiology services along the lines typically seen only in top academic Radiology Departments. RIMA works in partnership with referring physicians to offer each patient the most thorough diagnostic imaging and interpretation.

Surgeons

Northridge Hospital boasts outstanding Surgical Oncologists as well as specialized surgeons in Thoracics, Neurology, Breast and Gynecology. Our surgical team is dedicated to providing our patients with a complete range of options best suited to their individual needs. Our Cancer Specialists are extraordinarily precise in removing the cancer while preserving as much normal tissue and function as possible.

Recent studies have shown that, for many cancers, patients have fewer complications if their surgery is performed at a hospital performing a high volume of these operations and if the surgery is performed by a surgeon who has expertise in the procedure, like those found at Northridge Hospital.

Oncology Nursing

As integral members of a multidisciplinary team, specially-trained Oncology Nurses provide the balance between innovative, expert treatment and personalized care. We are committed to maintaining the highest professional standards and continue to keep abreast of the latest treatments and technologies through research, certification and life-long learning.

Nurses maintain certifications in the implementation of specialized treatments such as chemotherapy, radiation therapy, IV therapy and blood transfusion and many are certified specifically in Oncologic Nursing.



Cancer Care Consultants Radiation Oncologists: Daniel Schiffner, MD; David Huang, MD; David Khan, MD; Mi Kyung Ko, MD; Afshin Safa, MD; and Uri Zisblatt, MD.



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The Lung Cancer Program



Sheldon Davidson, MD
Oncologist

Lung Cancer Experts

The Leavey Cancer Center's Lung Cancer Team is comprised of specialists in Medical and Radiation Oncology, Surgery, Pulmonary Pathology and Pulmonary Medicine. This team approach for diagnosis and treatment allows patients to benefit from the expertise of several specialized physicians. Our comprehensive program also offers specialists in Pathology and Thoracic Diseases - only found at highly specialized hospitals such as Northridge Hospital Medical Center.

Prevalence of Lung Cancer

Lung cancer is the number three tumor site seen at Northridge Hospital and at this time it is the number one cancer responsible for death in this country. More people die of lung cancer than of colon, breast and prostate cancers combined. It is expected that there will be more than 220,000 new cases of lung cancer this year, of which, almost 160,000 will die.

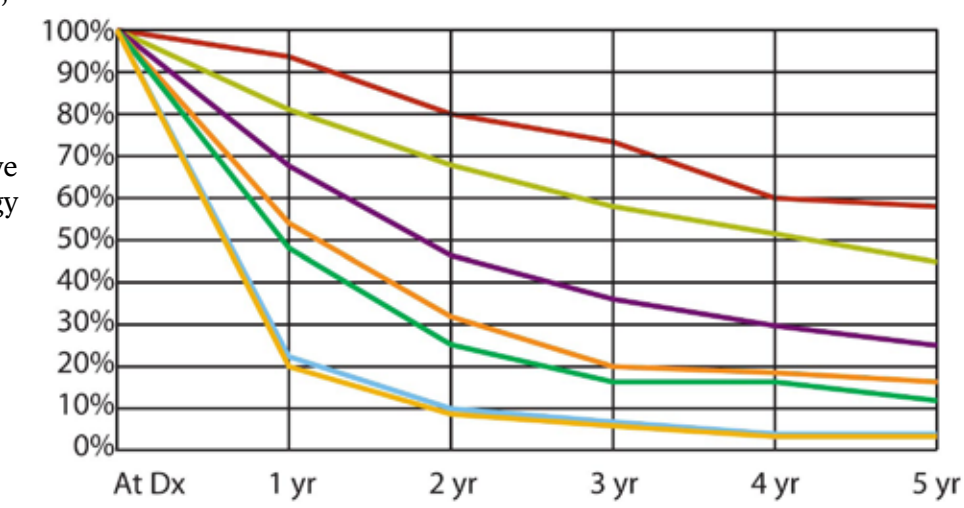
Smoking is responsible for 87 percent of all lung cancer cases in the United States.

Eliminating tobacco use is key to reducing the impact of this disease. Lung cancer is uncommon in people under the age of 45.

Smoking is still by far the most important etiology, and 90 percent of males and 80 percent of females will have smoking as their primary cause. Therefore, the major impact in reducing incidence and deaths from lung cancer is prevention, which means elimination of smoking from the population. There will still be lung cancer with the absence of smoking, but it will become the uncommon rather than the most common malignancy.

Five Year Observed Survival Rates NSC Lung Cancer NHMC Compared To NCDB - 1998-2002*

*AJCC Stage TNM Edition 5
Source: National Cancer Database*



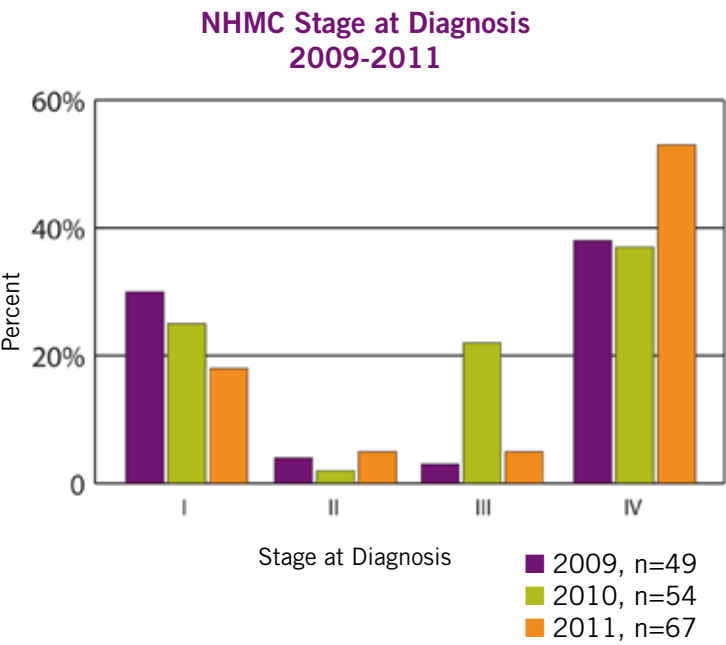
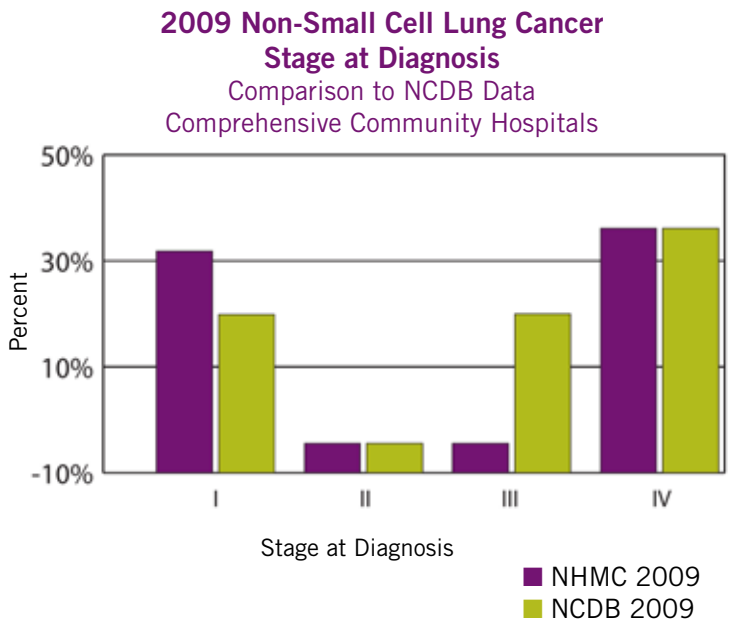
■ NHMC Stg 1 n:36
■ NCDB Stg 1 n:73,704
■ NCDB Stg 2 n:27,169**
■ NHMC Stg 3 n:51
■ NCDB Stg 3 n:90,444
■ NHMC Stg 4 n:59
■ NCDB Stg 4 n:121,379
* 2003-2004 data is the most recent data posted by the NCDB. NHMC total cases insufficient to make statistically significant
**NHMC Stg 2: insufficient data to compare to NCDB (NHMC Stg 2 n:11)

Diagnosing Lung Cancer

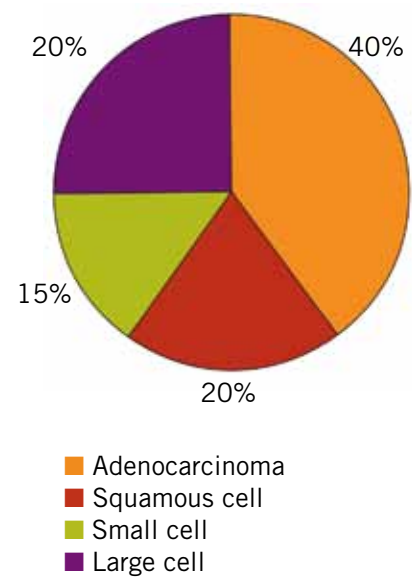
For those at risk for lung cancer, early detection is critical. Based on recent research showing that Low-Dose Computed Tomography (LDCT) screening can help reduce lung cancer deaths, we are now recommending annual LDCT lung cancer screening for the following patients:

- Smokers and former smokers between the ages of 55 and 79 who have smoked the equivalent of a pack of cigarettes a day for 30 years.
- Smokers and former smokers between the ages of 50 and 79 who have smoked the equivalent of a pack of cigarettes a day for 20 years and have other factors that raise their risk of developing lung cancer.
- Long-term lung cancer survivors up to the age of 79 (to detect a second case of primary lung cancer).

Forty percent of lung cancers in this country are adenocarcinoma, about 20 percent squamous cell (this amount is decreasing daily); and less than 15 percent are small cell with the remaining 25 percent being mixed histologies.



Lung Cancer Histologies



Evidence-Based Progressive Treatment

Surgery

For patients who have stage I or II non-small cell lung cancer, the treatment of choice is surgical resection. Most frequently mediastinoscopy is done prior to the surgery to be certain that the patient has not progressed to stage III.

Adjuvant Chemotherapy

Patients who are stage II with positive lymph nodes, which would be IIA, IIB and N1, are candidates for adjuvant chemotherapy, which improves outcome and reduces recurrence. For stage II patients who are IIA or No and have tumors between five and seven centimeters, the data is not as supportive, but adjuvant chemotherapy may still be of value to some patients.

Adjuvant chemotherapy consists of a platinum doublet. The second agent can be: Navelbine, Taxanes and for adenocarcinoma, Alimta. Although a Cisplatin and Navelbine combination has the most evidence supporting their use, they are also quite toxic.

Advanced Radiation at the Harold & Carole Pump Department of Radiation Oncology

For selected stage I/II patients who are not surgical candidates, Trilogy Stereotactic Body Radiation Therapy (SBRT) is offered. SBRT is far more effective than standard radiation therapy - especially for early stage lung cancer. There is convincing evidence from the United States, Japan and Europe that SBRT may be as effective as surgery for early stage lung cancer. SBRT has shown dramatically better outcomes than conventional radiation therapy. Whereas two-year local control rates for conventional treatment range from 30 to 40 percent, the success rates for SBRT range from 80 to 90 percent — comparable to those of resection surgery but with far fewer risks.

“The majority of lung cancer patients receive a late diagnosis despite increased awareness and screening programs targeted to at risk populations. Well over half of the number of patients receive a diagnosis of stage III or IV cancer. Although smoking rates have decreased over the past few years, lung cancer rates will continue to remain stable due to older populations of smokers developing the disease. Newly diagnosed patients will likely reach 180,000 by 2020.”

The Advisory Board Company

alone. Radiation is selectively used for specific indications such as painful bony metastases, pulmonary/SVC obstruction or brain metastases. For selected brain metastases, Gamma Knife Stereotactic Radiosurgery is the Gold Standard in controlling brain metastases without the need for conventional surgery or whole brain radiation therapy.

Molecular Diagnosis Leads to Tailor-Made Therapy

There have been many recent advances in lung cancer treatment for stages IIIB and IV. It is critical that a diagnostic biopsy be made; that adequate tissue is obtained to be able to completely determine the cell type; and to have enough tissue for molecular diagnosis. Treatment of squamous cell and adenocarcinoma is very different, therefore being able to determine the tumor category is vital in determining the treatment.



Anil Wadhwani, MD
Interventional Radiologist





Azmi Atiya, MD, Thoracic Surgeon

If the patient has adenocarcinoma, molecular diagnosis is extremely important. Many patients who have not smoked harbor activating mutations, which are the drivers of the malignancy. Targeted agents can block the driver mutation, produce significant benefits and can sometimes result in complete remission and prolong survival.

A great deal of research is currently underway to study the molecular profile of lung cancer, to find more activating mutations and defined agents, which are capable of interfering with the agents and mutations, thus resulting in a clinical benefit. In cases where there is an inadequate amount of tissue, it is worthwhile to conduct another biopsy to obtain more tissue to perform the diagnostic procedure.

Survival by Stage

Despite these advances, the only patients who are cured are those who present with stage I and to a degree stage II, and can be cured by surgery.

Education

Approximately 85-90 percent of lung cancer cases are caused by voluntary or involuntary (second-hand) cigarette smoking. Reports from the Surgeon General show a 20 to 30 percent increase in the risk of lung cancer from second-hand smoke exposure from living with a smoker. Because smoking cessation is the most important way to avoid lung cancer, our Navigator Outreach Program is addressing lung cancer prevention through smoking prevention in schools and smoking cessation.

The Technology Behind the Treatment

Using minimally-invasive techniques whenever possible, our cancer specialists are extraordinarily precise in removing the cancer while preserving as much normal tissue and function as possible. A treatment plan may involve minimally-invasive thoracic surgery, general thoracic surgery or stereotactic surgery. For non-small cell lung cancers that have not spread beyond the lung, surgery is the most effective treatment.

Video-Assisted Thoracic Surgery (VATS) - This minimally-invasive approach allows the surgeon to operate with robotic assistance through small openings between the ribs while viewing internal organs on a television monitor. Research indicates that medical centers with the most number of thoracic surgeries tend to have the best outcomes for patients. VATS surgery outcomes have comparable results to open surgery, but with less pain, fewer deaths following surgery and shorter hospital stays. This procedure is currently available in only a few selected U.S. hospitals, including Northridge Hospital.

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Stent Placement - Placement of expandable metal stents can improve the pulmonary function for patients with malignant airway obstructions. After undergoing surgery, many patients receive radiation therapy to stop the growth of undetected cancer cells. Radiation reduces the chance of recurrence. This combination of surgery and radiation therapy has long been considered the safe and effective alternative to the complete removal of an organ. **The Harold and Carole Pump Department of Radiation Oncology** offers the following technologies:

- **Trilogy® Linear Accelerator Stereotactic System** for image-guided radiation therapy (IGRT) and stereotactic radiosurgery (SRS) - the world's premier image-guided system is capable of delivering all forms of external beam radiation including IMRT. It can treat cancer anywhere in the body by precisely targeting tumors and delivering higher doses of radiation, resulting in fewer treatment sessions.

State-of-the-art motion management techniques allow doctors to coordinate treatment with a patient's breathing patterns to improve the accuracy of radiation for lung cancer.

- **Radiofrequency Ablation (RFA)** - An alternative non-surgical, minimally-invasive treatment for carefully selected patients using heat to treat tumors. Using high-energy radio waves to heat and destroy abnormal tissues, this very potent and precise technique obliterates soft tissue tumors while minimizing damage to the surrounding tissue. A thin, needle-like probe is guided into the tumor by ultrasound or CT scan. The probe releases a high-frequency current that heats and destroys the cancer cells.

For stage III, with positive mediastinal lymph nodes, **concurrent radiation/chemotherapy** yields the best results.

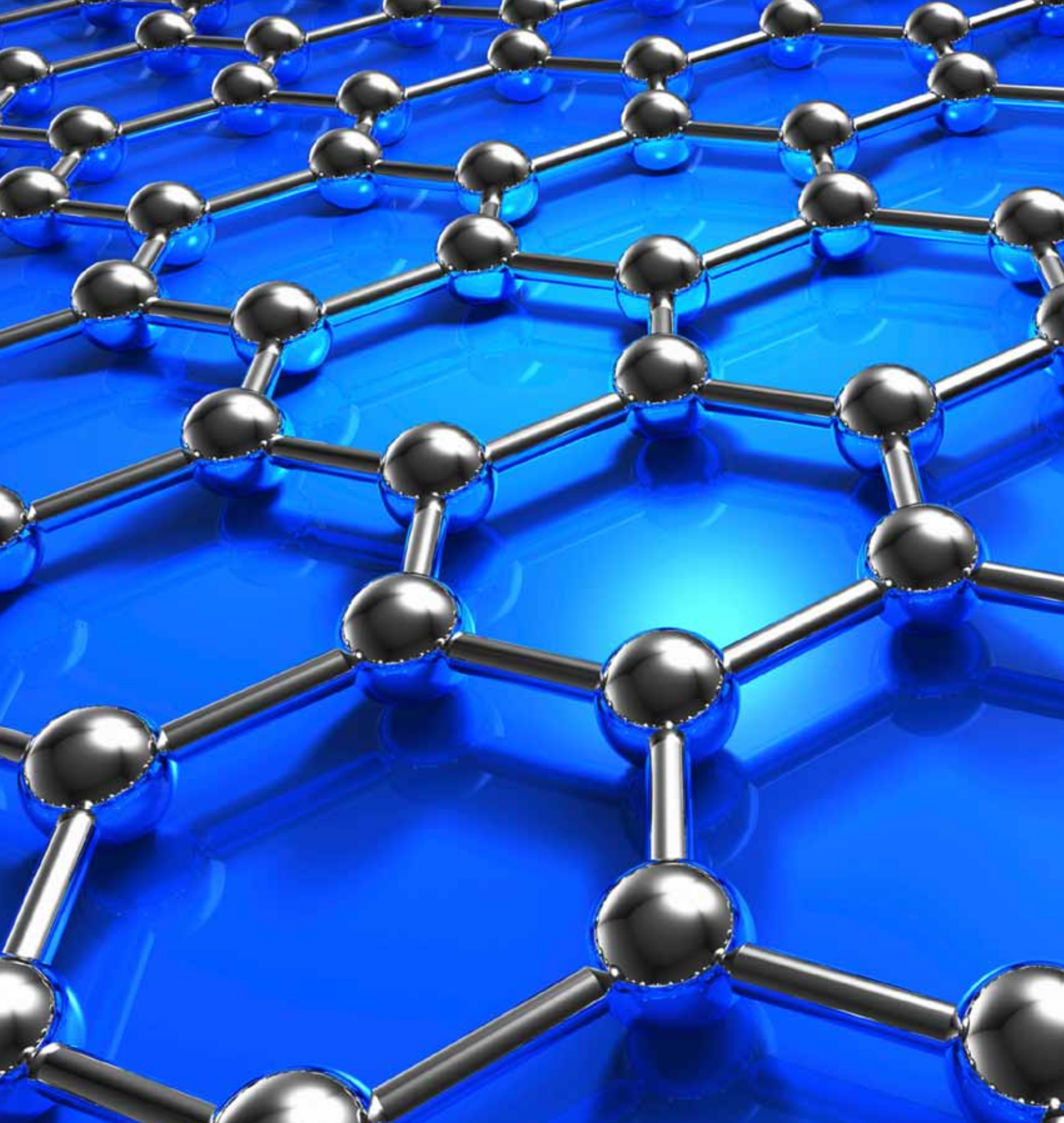
The newly expanded Leavey Cancer Center offers an open chemotherapy area that includes comfortable lounge chairs for patients and family, and a choice of infusion suites equipped with an individual television with headset, DVD players, iPod and Wi-Fi for laptop access.

We offer the most advanced methods of chemotherapy and hormonal therapy treatment. Our patients are given a comfortable, supportive setting while receiving their therapy. In addition, we offer personalized care, including a comprehensive Navigator Program that acts as a personal concierge for patients, and supportive care services that tailors symptom management to the unique needs of the individual.



Radiation Oncologists: Afshin Safa, MD, and Daniel Schiffner, MD





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Molecular Diagnostics Determine Cancer Treatment

*Kimberly Mislick, MD, PhD
Laboratory/Pathology*

As the number of targeted cancer therapies grows, it is increasingly important that hospital laboratories stay abreast of the most current advancements in molecular diagnostics. Using state-of-the-art testing, our Pathologists can evaluate each patient's tumor for the presence of specific mutations that predict the response to targeted therapies.

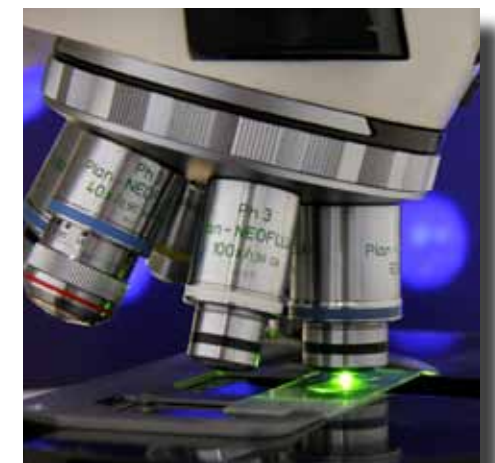
The discovery of molecular and genetic alterations found within cancer cells and the targeted therapeutics or “smart drugs” developed to take advantage of them have greatly shifted the way we treat cancer.

At Northridge Hospital, our team of Oncologists, Surgeons and Pathologists recognize that targeted therapies are the future of cancer treatment. We are committed to utilizing the latest advances in molecular diagnostics and cancer therapy to tailor a treatment plan that's optimized for each patient. We believe that taking a personalized approach to treatment for our cancer patients will give them the best outcome.

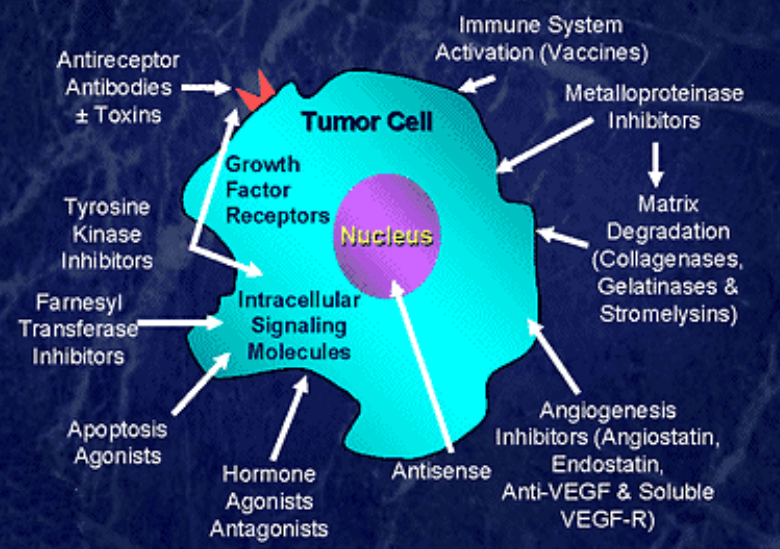
Laboratory Experts As Resource

With the trend of using genetic information in making medical decisions, our forward-thinking Physician Team offers integrated clinical consultation services on the latest molecular diagnostic tests by reviewing clinical studies, utility, costs and viability. Over the past several years, the Northridge Hospital Laboratory has made great strides in seeking out the most efficient tests for diagnosing gene mutations and then working with our Levey Cancer Center Oncologists to develop patient-centric care pathways.

While the potential of using genetics to improve treatment for patients is promising, increased utilization of these services has faltered due to the speed and depth of the emergence of the new technology. By working with and educating the referring physician, our Individualized Therapy Team strives to provide optimal and appropriate care to each patient. The Individualized Therapy Team takes advantage of advances in the molecular understanding of disease to identify individual risk factors and predict individual responsiveness to therapy.



Targeted Cancer Therapies



Targeted Therapies

Targeted therapies are a burgeoning class of cancer compounds designed to hone in on malignant cells by blocking critical pathways unique to oncogenesis. Targeted therapies block the proliferation of the tumor cells that depend on these pathways for cellular division and growth.

In contrast to cytotoxic chemotherapeutic agents that have the ability to kill all rapidly dividing cells, including some normal cells, molecularly targeted drugs are less likely to cause severe side effects because they act on very specific molecules within the cell.

Tumor Evaluation

Due to the specificity of the new designer compounds, not every patient will be a candidate for targeted therapy. To determine if a patient is a candidate,

the patient's tumor is evaluated and characterized using traditional light microscopy. Based on the precise histopathologic classification of the tumor, additional molecular tests are ordered to predict sensitivity to specific drug candidates.

In partnership with UCLA, we currently are testing tumors for a variety of different mutations. Results on some tests can be obtained in as little as two business days. These results are used not only for revealing treatment options, but also for identifying patients who may be eligible to participate in groundbreaking clinical trials.

Laboratory Advantages

A game changer for clinical laboratories, molecular diagnostics are offering more powerful tools for earlier and more accurate detection of disease and giving laboratories a key role in the emerging field of personalized medicine.

In some cases, Pathologists can perform molecular testing on biopsy samples. This is extremely critical for certain cancer patients who may not be eligible for a surgical resection.

Using genetic information to guide drug therapy is just the beginning. In the near future, genomics—the science of reading and interpreting the DNA sequence—will help Leavey Cancer Center physicians select the best tests and procedures for their patients. Eventually, genetics will help guide efforts to prevent disease and maintain good health.

When new genetic tests are available, members of the Individualized Therapy Team meet with prospective physicians to discuss the evidence for using the test.

For more information on our integrated clinical consultation services, please call 818-885-5398.

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Cancer Navigator Program Restructures and Expands

Cancer Navigator

Navigator Programs are nationally recognized for increasing a cancer patient's chances for survival and quality of life. Our Navigators support more than 2,000 patients a year. In 2006, the Leavey Cancer Center implemented the Navigator Program through a grant from the **Avon Foundation for Women**.

Based on the needs of the cancer population served and the demand for resources, Northridge Hospital's Cancer Committee embarked on an evaluation and subsequent restructuring of the Navigator Program in late 2011. The goals of the restructure were to maintain the lost-to-follow-up-rate, increase the number of patients served and improve the patient/family experience from diagnosis through survivorship.

Patient Feedback Helps Guide Change

To further enhance the new Navigator Program structure, a needs assessment and focus groups were conducted, in addition to evaluating current patient satisfaction survey results.

The needs assessment identified the cancer-related needs, health disparities and gaps in cancer-related healthcare of the population within the Service Planning Area 2 (SPA).

Four focus groups were conducted with a total of 30 participants. The following feedback was obtained from 90 percent of the respondents:

- They had a good understanding of their plan of treatment.
- They were able to get an appointment with an Oncologist at the Cancer Center in a timely manner.
- They were pleased that their family/significant others were involved in care.
- They felt that the staff was sensitive to patient and family needs, was supportive, provided helpful and clear education and prioritized the patient's needs/wants.





Outreach Navigator

- Patients and their families wish to become more involved with the programs offered at the Leavey Cancer Center.
- Enjoyed and considered valuable the Cancer Center tours for new patients and the new Library, Lobby and Healing Garden.

Areas noted for improvement included:

- Increasing patient awareness of all services.
- Customizing the amount of education to each patient.
- Expediting health insurance processing.

The Cancer Committee will conduct a needs assessment in every three-year survey cycle and continue to assess and modify accordingly each year.

Embark on a Journey to Survivorship

The Navigator Program has been restructured and the original position was expanded and divided into three: RN Oncology Navigator, Outreach Coordinator and a bilingual Patient Advocate.

The purpose of the restructure is to further develop the Nurse Navigator role while integrating it into both inpatient and outpatient operations. The restructured position ensures a continuity of care, high quality care and provides a **concierge approach** to service. It is essential that the patient experience be the center of all services provided.

The RN Navigator

The RN Navigator is the patient's point-of-contact concierge to ensure a smooth transition among hospital services. Patients can rely on their Navigator for compassionate support, encouragement and education.

The RN Navigator provides:

- One-on-one meetings with patients to better acquaint them with all of our services.
- Pre-and-post operative surgery education.
- Coordination of patient appointments with other specialties.
- Psychosocial support resources such as support groups, classes and programs through NHMC's partnerships with the American Cancer Society and WeSPARK.
- A comprehensive Patient Orientation Program, *Navigating Through Your Cancer Journey*.
- Resources for each patient's unique needs during their care at the Cancer Center.

Patient Advocate

A part-time bilingual Patient Advocate, who holds a Bachelor's Degree in Health Administration, was hired to assist the Outreach Navigator with both outreach and inpatient needs, including assistance with transportation and home health issues. Moreover, the Patient Advocate assumes the role of Librarian to provide education, resources and information to all patients and families at the Cancer Center Library.

Together
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Fight **Cancer**

Outreach Coordinator

The Navigator Program's Outreach Coordinator has a Master's in Public Health and works closely with the RN Navigator to bridge the gap between inpatient and outpatient services. Funded by the Avon Foundation for Women, she implements, maintains and coordinates the Cancer Outreach Program for the Hospital.

The Outreach Coordinator:

- Identifies community healthcare discrepancies and needs.
- Works with disparate populations to increase access to screening activities, education and care.
- Collaborates with partner programs to produce culturally sensitive educational materials and events while constantly maintaining and updating program information.
- Designs health education programs based on the incidence of health disparities in the community.
- Addresses ways to alleviate barriers to care.

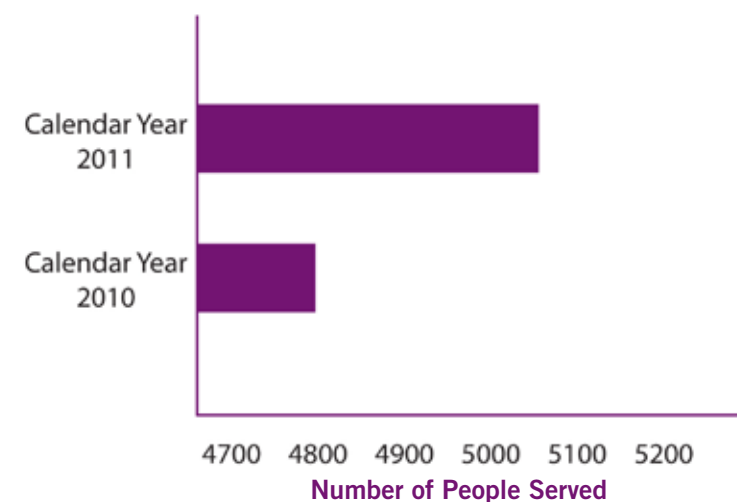
Outreach Partnerships include:

- American Cancer Society
- Northridge Hospital's School-based Obesity and Diabetes Initiative
- Community organizations such as WeSPARK and the Wellness Community
- Churches
- Schools

Community Outreach Education

In 2011, NHMC Community Outreach provided health education to 5,095 San Fernando Valley residents and 1,794 health screenings. The screenings were conducted at quarterly fairs held at the Hospital and funded by The Harold Pump Foundation.

Community Outreach



Harold Marks, MD
Surgeon





Marie McCombs, MD
Women's Imaging/Breast Imaging

In late 2011, the Navigator Outreach Program, funded by The Harold Pump Foundation, was redesigned to increase the frequency of the free service to monthly for the underinsured and uninsured population. This allowed us to increase free mammograms to 90 per month and provide 50 free prostate screenings per year along with a better patient experience through utilization of the Carole Pump Women's Center.

The new Navigator Outreach Program includes:

- Free mammogram health fairs held the second Friday of each month by appointment at the Carole Pump Women's Center.
- 50 Free prostate screenings held quarterly.
- Outreach and education offered at no charge to the NHMC School-Based Obesity and Diabetes Initiative partnership schools, local churches, community centers and at community events for the underserved in SPA2.

Cancer Center Patient and Family Advisory Council

The Needs Assessment also identified patients' desire to be more involved with the programs offered at the Leavey Cancer Center. Therefore, in April 2012, the Cancer Center Patient and Family Council was formed. The council consists of a team of staff members, patients and families whose purpose is to:

- Improve the patient experience.
- Provide expertise in the unique needs of our patients.
- Assist the Cancer Center staff with a better understanding of unique cultural traditions, values and lifestyles.
- Allow patients and families the opportunity to provide input on Cancer Center services and how to better involve the patient/family in the care process.
- Provide a forum for information sharing, feedback and program evaluation.



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David, Carole and Dana Pump

Education Saves Lives

Educating the community about cancer prevention and early detection is vital to the health of our residents. That's why the HPF allocated \$100,000 in 2011 towards outreach efforts in education and early detection through the implementation of bilingual health fairs for the uninsured and underinsured.

The HPF's three primary goals are to 1) Bring the best diagnostic therapeutic technology to our community. 2) Reach out to our underprivileged community to educate and screen for cancer. 3) Comfort patients and families through a variety of holistic and supportive services. With these goals in mind, the Leavey Cancer Center and the Carole Pump Women's Center supported the following community services:

Screening and Education

- Established in 2006, the Harold Pump Foundation began support of quarterly health fairs. These fairs have reached a colossal number of at-risk community members who otherwise would not have had access to such information and screenings.
- Using an existing relationship with Los Angeles Unified School District (LAUSD) and local organizations, a partnership to educate parents of students was formed by the Outreach Navigator.
- In 2009, the Harold Pump Foundation implemented the Colonoscopy Program to provide free colorectal screenings to those over age 50 who are underinsured or uninsured.

The Family Plan Fund

The Family Plan Fund was established to assist patients and their families with payment for home services or equipment needs. In 2011, more than 1,700 hours of home healthcare and one-on-one therapy were provided to patients free of charge.

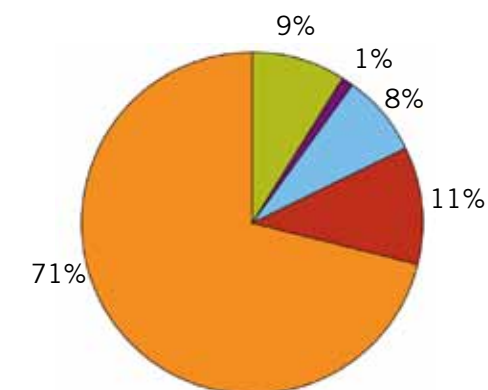
Also, for those cancer patients with no means of travel, the Family Plan provided more than 407 rides for treatment and tests.

Northridge Hospital and the HPF partnered with several community organizations to provide these vital outreach services including California State University, Northridge; Northridge Fashion Center; Avon Foundation; Stop Cancer; Vallarta Supermarkets; LAUSD; weSPARK; West Valley YMCA; Relay for Life; and local community health fairs and churches.

Pumping Up Cancer



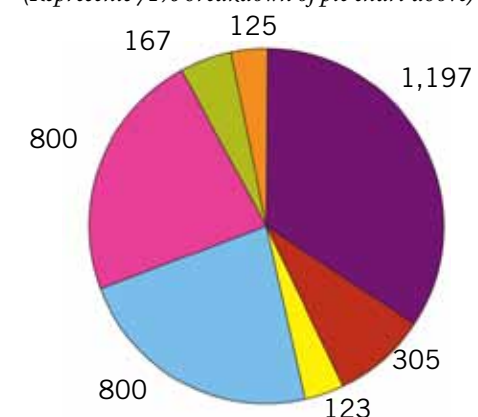
Harold Pump Foundation 2011 Allocations



- Stop Cancer Organization
- Equipment
- Family Plan
- Non-Profit Community Charities
- Outreach Education and Screening

2011 Outreach Education and Screenings

(Represents 71% breakdown of pie chart above)



- Mammogram (4 cancer findings)
- PAP (1 cancer finding)
- Prostate Screening (0 cancer findings)
- BP
- Glucose
- Colonoscopy (4 cancer findings)
- DRE (0 cancer findings)

Site Group	Total Cases	Class		Sex			Stage				
		Analytic	NonAn	M	F	Other	Stage 0	Stage I	Stage II	Stage III	Stage IV
ALL SITES	889	716	173	424	465	0	30	194	134	92	115
BREAST	133	110	23	1	132	0	15	33	30	8	7
PROSTATE	126	108	18	126	0	0	0	20	64	18	3
LUNG/BRONCHUS-NON SM CELL	84	67	17	48	36	0	0	13	6	7	36
OTHER HEMATOPOIETIC	54	21	33	26	28	0	0	0	0	0	0
COLON	48	41	7	29	19	0	1	5	8	13	12
CORPUS UTERI	48	44	4	0	48	0	0	35	1	6	2
THYROID	33	31	2	9	24	0	0	21	2	5	1
NON-HODGKIN'S LYMPHOMA	31	26	5	12	19	0	0	12	3	3	8
LEUKEMIA	28	17	11	18	10	0	0	0	0	0	0
KIDNEY AND RENAL PELVIS	26	21	5	18	8	0	0	13	1	3	3
BLADDER	25	25	0	18	7	0	13	5	5	1	0
LIVER	22	17	5	16	6	0	0	6	2	2	3
RECTUM & RECTOSIGMOID	20	19	1	13	7	0	0	4	1	5	4
UNKNOWN OR ILL-DEFINED	19	17	2	8	11	0	0	0	0	0	0
BRAIN	18	14	4	7	11	0	0	0	0	0	0
PANCREAS	16	12	4	8	8	0	0	1	2	0	6
MYELOMA	14	9	5	6	8	0	0	0	0	0	0
OVARY	13	6	7	0	13	0	0	1	0	2	3
OTHER NERVOUS SYSTEM	11	9	2	1	10	0	0	0	0	0	0
MELANOMA OF SKIN	10	6	4	4	6	0	1	1	2	0	1
STOMACH	9	7	2	5	4	0	0	1	0	1	3
TONGUE	8	7	1	8	0	0	0	1	0	0	6
LUNG/BRONCHUS-SMALL CELL	8	8	0	5	3	0	0	1	0	1	5
HODGKIN'S DISEASE	8	8	0	5	3	0	0	3	3	0	1
TONSIL	7	7	0	5	2	0	0	0	1	4	2
CERVIX UTERI	7	6	1	0	7	0	0	4	0	2	0
VULVA	7	7	0	0	7	0	0	4	1	0	1
ESOPHAGUS	6	4	2	5	1	0	0	0	0	0	2
GALLBLADDER	5	4	1	2	3	0	0	0	0	3	0
BILE DUCTS	4	4	0	3	1	0	0	0	1	0	1
LARYNX	4	4	0	2	2	0	0	4	0	0	0
NASOPHARYNX	3	2	1	3	0	0	0	0	0	2	0
SOFT TISSUE	3	3	0	1	2	0	0	1	0	1	0
VAGINA	3	3	0	0	3	0	0	1	0	1	0
TESTIS	3	3	0	3	0	0	0	3	0	0	0
HYPOPHARYNX	2	2	0	2	0	0	0	0	0	0	1
RETROPERITONEUM	2	2	0	0	2	0	0	0	0	1	1
NASAL CAVITY,SINUS,EAR	2	2	0	0	2	0	0	0	0	1	1
OTHER SKIN CA	2	1	1	1	1	0	0	0	0	0	0
CERVIX IN SITU CA	2	0	2	0	2	0	0	0	0	0	0
UTERUS NOS	2	1	1	0	2	0	0	0	0	0	0
OTHER ENDOCRINE	2	2	0	1	1	0	0	0	0	0	0
SALIVARY GLANDS, MAJOR	1	1	0	1	0	0	0	0	1	0	0
FLOOR OF MOUTH	1	1	0	0	1	0	0	1	0	0	0
SMALL INTESTINE	1	0	1	0	1	0	0	0	0	0	0
ANUS,ANAL CANAL,ANORECTUM	1	1	0	1	0	0	0	0	0	0	0
PERITONEUM,OMENTUM,MESENT	1	1	0	0	1	0	0	0	0	1	0
PLEURA	1	1	0	1	0	0	0	0	0	1	0
BONE	1	1	0	1	0	0	0	0	0	0	1
PENIS	1	1	0	1	0	0	0	0	0	0	1
URETER	1	0	1	0	1	0	0	0	0	0	0
OTHER URINARY	1	1	0	0	1	0	0	0	0	0	0
EYE	1	1	0	0	1	0	0	0	0	0	0

Maintaining a Cancer Registry ensures that health officials have accurate and timely information, while ensuring the availability of data for treatment, research and educational purposes. Administered by Certified Tumor Registrars (CTR), the Cancer Registry captures a complete summary of the history, diagnosis, treatment and disease status for every cancer patient.

The Cancer Registry at Northridge Hospital Medical Center is an integral department of the Leavey Cancer Center. The Registry is primarily responsible for reporting cancer cases to the state of California and to the National Cancer Data Base (NCDB), and as required by the American College of Surgeons (ACoS) Commission on Cancer (CoC), the data is submitted within six months of the date of first contact to ensure timely reporting of current cancer trends.

Cancer Registry Highlights:

- Registry CTRs maintain a 99 percent accuracy rate in quality of abstracting, thus exceeding the State of California standard of 97 percent.
- The Registry currently maintains a 92 percent follow-up rate for eligible analytic cases since the registry’s 1997 reference date, thus exceeding the standard of 80 percent set by the CoC.
- The Registry currently maintains a 94 percent follow-up rate for all eligible analytic cases diagnosed within the last five years, thus exceeding the standard of 90 percent set by the CoC.
- The Cancer Registry coordinates the multidisciplinary weekly Cancer Conferences/Tumor Board.

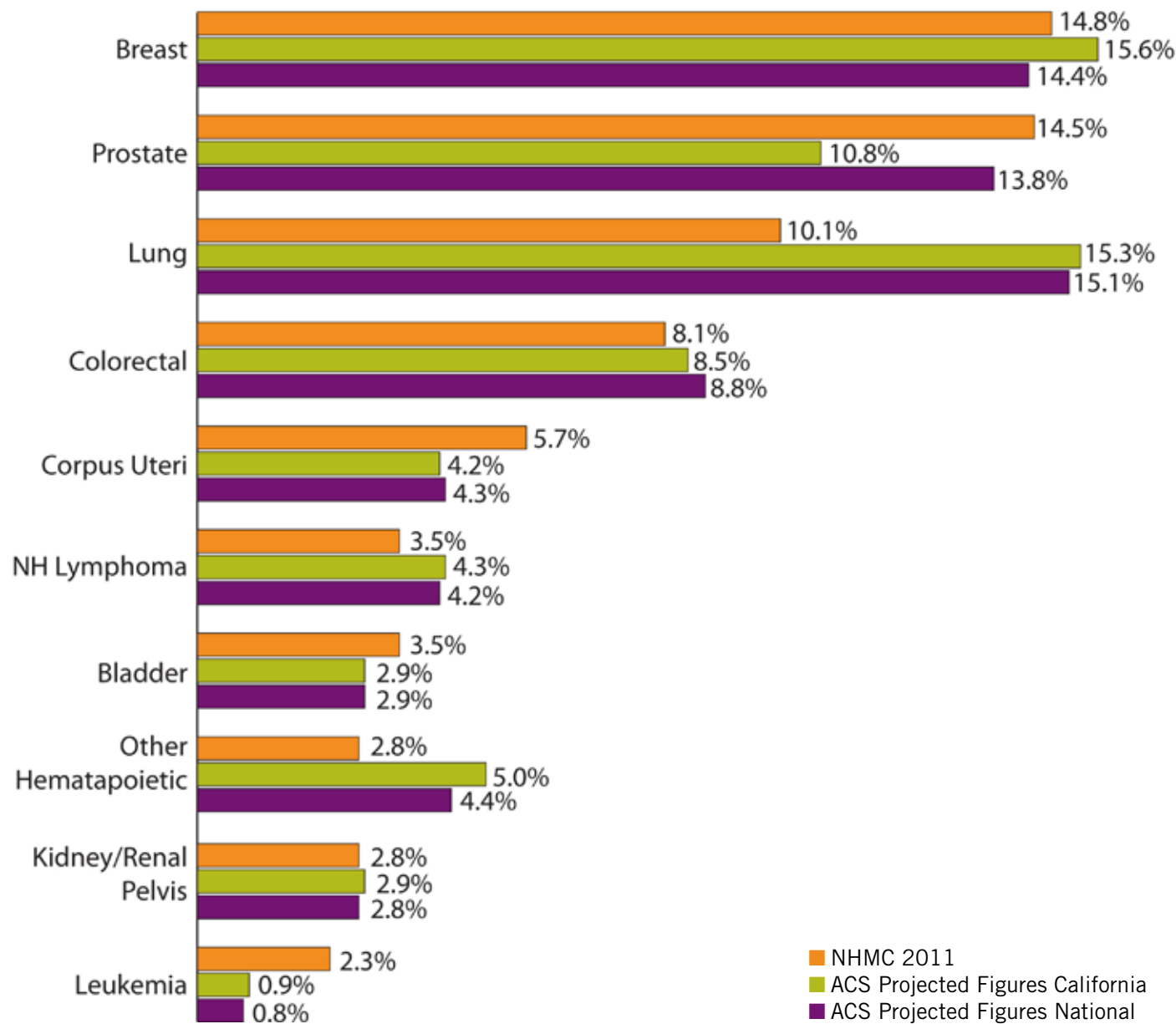
Registry data and statistics are reported and utilized by:

- The Community Outreach Program – to determine community health needs and focus on appropriate cancer screenings and education.
- Program Planning and Development – planning, volume projection and marketing.
- Northridge Hospital Foundation – grant application and reporting.
- Research Department – tailoring clinical trials to meet the most prevalent cancer types.



National Comparison Of The Ten Most Prevalent Cancer Sites 2011

Estimated Cancer Cases from: The American Cancer Society Cancer Facts & Figures 2011



	NHMC		California		National	
Primary Site	Cases	Percent	Cases	Percent	Cases	Percent
Breast	110	14.8%	25,510	15.6%	230,480	14.4%
Prostate	108	14.5%	17,660	10.8%	221,130	13.8%
Lung	75	10.1%	25,030	15.3%	240,890	15.1%
Colorectal	60	8.1%	13,880	8.5%	141,210	8.8%
Corpus Uteri	42	5.7%	6,810	4.2%	69,250	4.3%
NH Lymphoma	26	3.5%	7,070	4.3%	66,360	4.2%
Bladder	25	3.5%	4,730	2.9%	46,470	2.9%
Other Hematopoietic	21	2.8%	8,250	5.0%	70,230	4.4%
Kidney/Renal Pelvis	21	2.8%	4,760	2.9%	44,600	2.8%
Leukemia	17	2.3%	1,520	0.9%	12,710	0.8%
All Others	211	31.8%	48,750	29.5%	453,340	28.4%
Total Cases	716	100%	163,480	100%	1,596,670	100%



Oncology Conferences are an opportunity for physicians to review and discuss treatment options available for specific malignant processes. The conferences are multidisciplinary and include physicians from Medical Oncology, Radiation Oncology, Surgery, Radiology and Pathology. Each case is reviewed for the medical history, physical findings, diagnostic imaging and therapeutic approaches. For each case presented, the conference focuses on pretreatment evaluation, clinical and pathological staging, new medications, clinical trials and National Comprehensive Cancer Care Network treatment guidelines.

Cases presented at the Oncology Conferences are at least 10 percent of the annual analytic cases accessioned into the Cancer Registry database and include cases from the five major sites seen at Northridge Hospital Medical Center. At least 75 percent of the cases presented are required to be prospective. Prospective cases are defined as those that are presented at a time when management of the patient’s disease process could be influenced by discussion. This includes newly diagnosed cases not yet treated; cases in which treatment has been initiated and additional treatment options may be needed; and cases of disease recurrence following completion of initial treatment. In 2011, 37 Tumor Boards were held with 143 of the total 145 case presentations being prospective cases.

The Cancer Registry monitors Oncology Conference activity and reports their findings to the Cancer Committee on an annual basis to ensure compliance with the ACoS cancer program standards.

Physicians are encouraged to contact the Cancer Registry at 818-885-8500, ext. 2835 or ext. 2833 to schedule case presentations for the conferences listed at the right:

Oncology Conferences

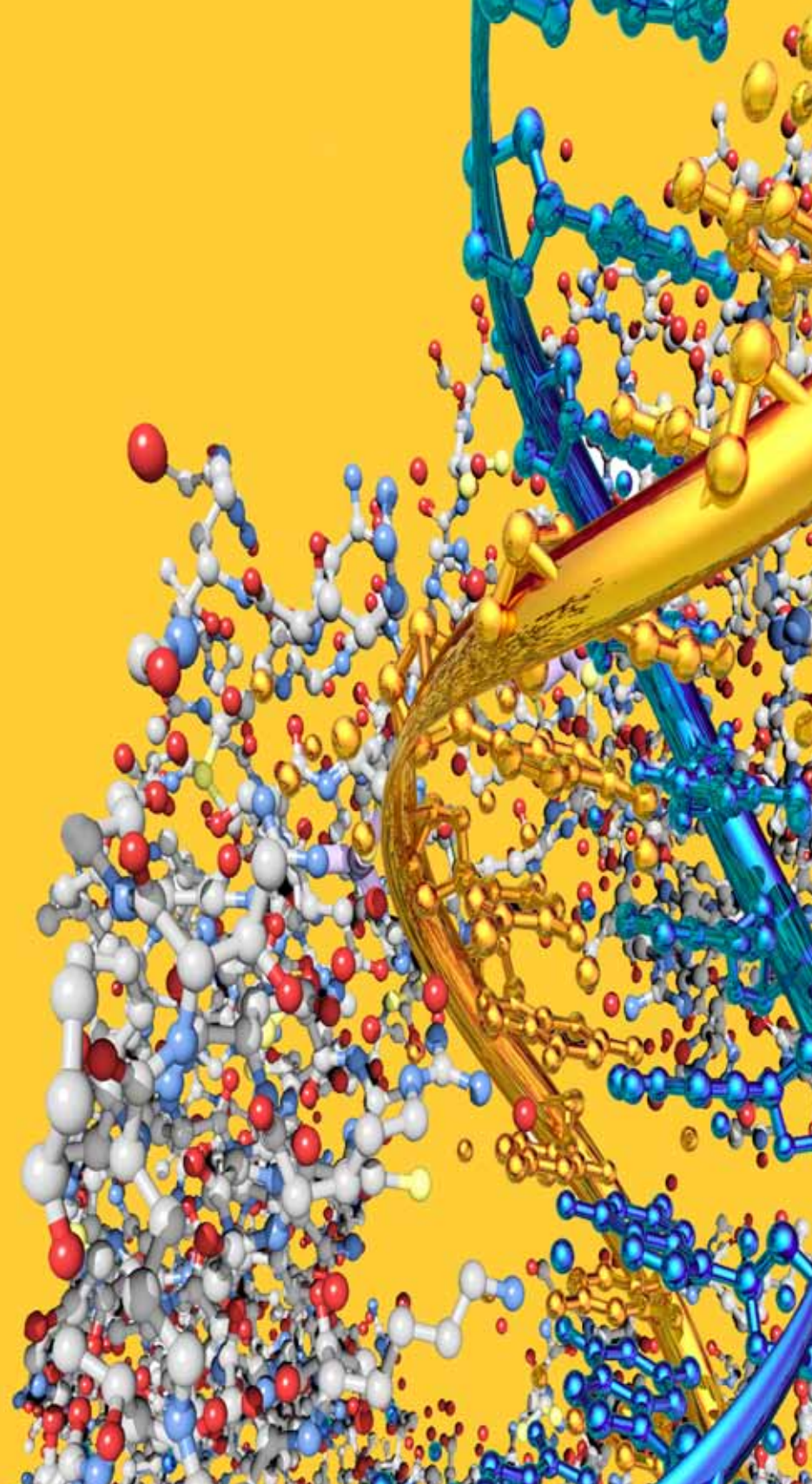
Breast Conference:
2nd and 4th Thursday of each month

General Tumor Board:
3rd Thursday each month

Head and Neck Tumor Board:
1st Thursday every other month

Northridge Hospital Medical Center is accredited by the Institute for Medical Quality/California Medical Association (IMQ/CMA) to provide continuing medical education for physicians.

Northridge Hospital Medical Center designates this live activity for a maximum of 1 AMA PRA Category 1 Credit(s).™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.



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Cancer Committee Membership 2011

The membership of the Cancer Committee or other appropriate leadership body, is multidisciplinary, representing physicians from the diagnostic and treatment specialties and non-physicians from Administrative and Supportive Services.

Physician Members:

Afshin Safa, MD, Radiation Oncology, Cancer Committee Chair

Walid Arnaout, MD,
Surgical Oncology, Liver and Pancreas Program Medical Director

J. Gary Davidson, MD, Oncology, Leavey Cancer Center Medical Director

Jeremy Grosser, MD,
Internal Medicine, Pain Control/Palliative Care Medical Director

Harold Marks, MD, Surgery, Cancer Liaison Physician

Kimberly Mislick, MD, PhD,
Pathology and Laboratory Services, Medical Director

Anil Wadhvani, MD, Interventional Radiology

Administrative Members:

Nana Deeb, VP, Clinical Services

Jill Dickson, RN, OCN,
Cancer Program Manager/Performance Improvement

Rev. Leon Directo, M.Div., Director, Spiritual Care

Holly Hessel-Altman, RN, Director, Quality Management

Debra Flaherty, MSPT, Director, Rehabilitation and Neuroscience

Chrissy Kim, American Cancer Society

Diane Killian, RT (R) (T), Clinical Research Associate

Cheryl Lovett, RHIT, Director, Health Information Management

Judy Luskin, RHIT, CTR, Certified Tumor Registrar

Angie Martinez, LCSW, Social Services/Case Management

Robert Sakamoto, PharmD, Pharmacy

Candice Upham, RN, Director, Inpatient Oncology

Jenny Zeltser, MPH, Community Outreach





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Helping Shape the Future of Cancer Through Clinical Research

Groundbreaking medical advances are the result of new ideas and approaches developed through clinical research. Northridge Hospital Medical Center remains on the forefront of current research developments by participating in clinical research and partnering with some of the nation's most credible institutions such as UCLA.

The Institutional Review Board (IRB) at Northridge Hospital reviews and monitors research activities to ensure that they meet federal and state laws, regulations, Hospital standards and well-established ethical principles.

The Hospital has been involved in such high profile studies as the Letrozole therapy (after the completion of standard Tamoxifen for breast cancer patients) and STAR (the largest breast cancer research study ever conducted). Currently, we are actively engaged in the following clinical research trials.

For more information on Clinical Research Trials, please call 818-885-5458.

Breast Cancer

HER2+

Eisai E7389-A001-208

Phase II, single arm study of Eribulin Mesylate with Trastuzumab as 1st line for local recurrent or metastatic EGFR breast cancer

Boehringer Ingelheim 1200.75 LUX (pending)

Randomized Phase III Trial, BiBW 2992 and vinorelbine vs. trastuzumab and vinorelbine in patients with metastatic HER2+ breast cancer failing one prior Trastuzumab treatment

Breast Cancer

HER2-/HER+

Adjuvant

Amgen D-Care

Randomized, double-blind, placebo-controlled, Phase III Trial, Denosumab as adjuvant treatment for women with early-stage breast cancer at high risk of recurrence





Lung Cancer

Roche GO27821 MetMAB Non-Squamous
Randomized, Phase II, multicenter, double-blind, placebo-controlled study of MetMAB in combination with either Bevacizumab+Platinum+Paclitaxel or Pemetrexed. +Platinum as first-line treatment in patients with stage IIIB or IV Non-Squamous Non-Small Cell lung cancer (NSCLC)

Roche GO27820 MetMAB Squamous
Randomized, Phase II, multicenter, double-blind, placebo-controlled study of MetMAB in combination with Paclitaxel + Cisplatin or Carboplatin as First-Line. Treatment for patients with Stage IIIB (T4 Disease) or IV Squamous Non-Small Cell Lung Cancer (NSCLC)

Lilly-JVBA

Randomized double-blinded Phase III trial, Docetaxel and Ramucirumab (IMC-1121B) vs. Docetaxel and placebo for Stage IV NSCLC following disease progression after one prior platinum-based therapy

Gastric

Lilly JVBT

Randomized, placebo-controlled, double-blind, Phase II study of mFOLFOX6 chemotherapy plus Ramucirumab drug product (IMC-1121B) vs. mFOLFOX6 plus placebo for advanced Adenocarcinoma of the esophagus, Gastroesophageal Junction, or stomach

GI-o6

Phase II trial, MTOR inhibitor RAdoo1 in previously treated patients with unresectable or Metastatic Adenocarcinoma of the esophagus and stomach

Pancreatic

Adjuvant

TRIO-TORI-PA-o1

Randomized, Phase II Trial of Dasatinib plus Gemcitabine vs. single agent Gemcitabine in patients with resected Pancreatic Adenocarcinoma

Head & Neck

Lilly-JXBD

Randomized, double-blinded Phase II trial, safety study of Cetuximab, using ImClone vs. Boehringer Ingelheim manufacturing process, in combination with Cisplatin or Carboplatin and 5-Fluorouracil in the 1st line treatment of patients with local regionally recurrent and/or Metastatic Squamous Cell Carcinoma



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