

Pathway

Resource Management For Physicians of Patients Battling Cancer



NEVADA'S CANCER BURDEN:

According to the American Cancer Society, in Nevada alone, there will be an estimated 11,370 new cases of cancer diagnosed in 2008. To meet this need, Nevada Cancer Institute was founded as an academic research organization with an emphasis on patient-centered, compassionate care. Our mission is to reduce the burden of cancer for Nevada and beyond through innovative and collaborative research, education and patient care. Collaboration is where you come in. Our hope is to partner with you in this historic endeavor. Our dream is for Nevada Cancer Institute physicians to work side by side with community clinicians to improve the health of their patients. We can work together to offer patients newer and more treatment options. Nevada Cancer Institute is a powerful resource for physicians in Nevada and our neighboring states. We welcome the opportunity to work with you to develop a cure and bring new hope to cancer patients. >>>



Nevada Cancer
INSTITUTE
Research • Treatment • Education





From the lab to the exam room, Oscar Goodman, M.D., Ph.D., observes how circulating tumor cells can aid in cancer treatment.

From Bench to Bedside Researchers and Physicians Develop Innovative Cancer Treatments

Nevada Cancer Institute physicians and researchers are using the latest therapies to treat prostate cancer, while also using the latest science knowledge to predict patient outcomes, better influencing therapies and treatment regimens.

Prostate cancer is the leading type of cancer among men in Nevada and will claim an estimated 240 Nevada lives this year alone, according to the American Cancer Society. According to the same report, another 1,700 Nevada men will be diagnosed with prostate cancer this year; nationally, prostate cancer claims approximately 27,000 lives each year, the vast majority of which are a result of recurrent metastatic disease.

It is imperative that the oncology research community develop simple and inexpensive diagnostic assays to detect specific cancers at the earliest possible time. To this end scientists and clinicians at Nevada Cancer Institute have been working together to identify proteins or peptides in blood, urine, sputum or other body fluids that can distinguish individuals with cancer from those who are cancer free.

Metastatic prostate cancer occurs when tumor cells spread to other locations in the body and grow. Currently, oncologists often have to wait several months before they can determine if specific treatment is beneficial to the patient.

At Nevada Cancer Institute, clinical oncologists and researchers are using the CellSearch™ System to help predict disease progression and patient survival any time during therapy.

The CellSearch™ System identifies and counts circulating tumor cells (CTCs) in a blood sample to predict progression-free survival and overall survival in patients with metastatic breast, colorectal or prostate cancer, and can do so earlier than the current standard of care. The results of serial testing for CTCs with the CellSearch™ System provide additional information

to the oncologist and does so earlier than other currently approved diagnostic modalities, thereby allowing the oncologist to make more-informed patient care decisions.

“We have compared CellSearch™ CTC test results to the standard clinical and biomedical parameters, such as prostate specific antigen (PSA) measured in MPC patients,” said Nicholas J. Vogelzang, M.D., Nevada Cancer Institute director. “A decrease in the number of CTCs is most often associated with patients successfully responding to therapy.

“Further analysis of CTCs may provide information as to the most efficacious treatments for specific individuals.”

The CellSearch™ test works by using antibodies that are joined to microscopic iron particles, called ferrofluid. These antibody/ferrofluid combinations attach very specifically to CTCs. Powerful magnets then “pull” the CTCs out of the blood sample and they are then stained with additional bio-molecules and chemicals so that they can be positively identified as CTCs. The CellSearch™ test differs from the current standard of care because it can accurately predict prognosis



Louis M. Fink, M.D., oversees NVCI core laboratory services which includes CellSearch™ System used to identify and count circulating tumor cells.

much earlier than the prostate specific antigen serum tumor marker test.

“This is truly a case of bench to bedside and even bedside to bench, in that this test does help direct treatment option in our patients,” said Oscar Goodman, M.D., Ph.D., Nevada Cancer Institute clinical oncologist. “Due to its genetic origin, cancer is a very individual disease. Circulating tumor cells provide a window into an individual patient’s cancer, and analysis of these cells may enable tailored therapy in a bench to bedside manner. Currently, we also are using this to look at all therapies across the spectrum, biological as well as chemotherapy.”

Nevada Cancer Institute stands out in the area of clinical trials because of its clinical trials team—our physicians and researchers serve as the local Principal Investigator on trials and analyze data, developing new and better ways to treat and give therapies, rather than serving as an extension of an out-of-state research arm.

In addition to the latest in biomarker predictors, Nevada Cancer Institute has a wide range of options for prostate cancer patients, from early stages of diagnosis to later stages when more novel therapy options are often needed. We have more than 20 clinical trials for prostate cancer patients available, from first-in-human, vaccine trials, hormonal therapy, chemotherapy and later-stage trials.

“There really is no standard therapy beyond docetaxel; and many times once that occurs, patients are told there are no other options available,” Dr. Goodman said. “What we can bring to the table beyond the standard of care is to provide patients with an opportunity they wouldn’t normally have.”

One example is the COU-AA-301 Phase III clinical trial available at Nevada Cancer Institute, to which we have accrued some of the largest numbers of patients nationally.

The Phase III trial is a randomized, double-blind, placebo-controlled trial

of CB7630 plus prednisone in patients with metastatic castration-resistant prostate cancer who have failed docetaxel-based chemotherapy.

“Our clinical trials program is a partnership between Nevada Cancer Institute and our community partners, who refer qualified patients for these trials,” Goodman said. “It’s about giving their patients more options.”

One option available to patients at Nevada Cancer Institute is the Radiation Oncology Department’s prostate seed implant program, which accredited by the Seattle Prostate Institute. We are one of only two radiation oncology practices in Nevada to have this accreditation and affiliation.

The Seattle Prostate Institute has been the leader in prostate brachytherapy worldwide since the early 1990s. It has been shown that the quality of a prostate brachytherapy implants translates to improved patient outcomes. There are very specific criteria for safe and effective implants. Specific measurable dosimetric endpoints make a difference in cure rates and toxicity.

Radiation clinical trials are also available to patients in the early stage of diagnosis. One such clinical trial available at Nevada Cancer Institute is RTOG 0232, a Phase III study comparing seed implant alone verses external beam radiation plus seed radiation for selected patients with localized/ early stage, intermediate risk, prostate cancer.

Dr. Vogelzang said such a robust clinical trials program with some of the major new drugs that are being developed in the United States and the world, available in southern Nevada is a boon for patients and community oncologists alike.

“This allows you to provide that care, adding years to people’s lives,” Dr. Vogelzang said. “At the very least, we’re giving patients hope, and that often goes a long way.”



Philip J. Manno, M.D., FACP,
is Chief of Clinical Oncology
and Hematology Services at
Nevada Cancer Institute

Nevada Cancer Institute Partners with Physicians to Deliver Cutting-Edge Cancer Treatment to Patients

Nevada Cancer Institute was founded on the principle that the patient is the most important part in the practice of medicine. Through a collaborative approach involving cutting-edge research, world-renown physicians, compassionate nurses, support staff and volunteers, Nevada Cancer Institute treats every patient as unique and important. The Institute's research-linked, comprehensive program is dedicated to offering the most current cancer treatment options available, working closely with community physicians in a combined effort to beat cancer.

Everything that relates to a patient going through cancer treatment is attended to by staff who make giving support and hope, and caring for the patient, their only priority. Anyone who seeks therapy from Nevada Cancer Institute becomes part

of its extended family, and we pride ourselves on working as a team with community physicians to help their patients in whatever ways necessary and appropriate.

Many of Nevada Cancer Institute's physicians are also dedicated researchers, adding the advantage of familiarity with the latest in pharmaceutical resources and groundbreaking treatment methods to detect and treat cancer. Our researcher-physicians are at the forefront of new breakthrough cancer treatments, focusing their knowledge and discoveries on bringing these therapies to the patients in the shortest time possible.

Our emphasis on patient care and safety was recently recognized when it earned The Joint Commission Gold Seal of Approval™, and received no findings, no areas in which to improve, during the voluntary accreditation process. This was a significant event, as it officially denoted the high level of patient quality that Nevada Cancer Institute has practiced since we opened our doors in 2005.

Underneath the science and medicine, Nevada Cancer Institute knows that offering the patient a comforting, soothing and healing environment is important for confidence and recovery. Our "product" is our patients, so patient needs must, and always will, come first.

Nevada Cancer Institute offers the following areas of excellence in treating cancer:

Medical Oncology—Our Clinical Sciences Division represents the delivery of proven diagnosis and treatment to patients. From laboratory bench to patient bedside, this division works to develop and analyze new prevention, diagnostic and treatment options for cancers. The division is composed of the following departments: clinical oncology services, hematological malignancies, hematology services,

breast cancer oncology, radiation oncology, leukemia, and melanoma, renal cancer and immunotherapy. Utilizing a comprehensive approach to care, many of our physicians are involved in laboratory research and the development of clinical trials. Along with a dedicated support team, members of this division are directly involved in patient and family care.

Clinical Trials—This program offers patients access to novel agents, in addition to a routine standard of care. Nevada Cancer Institute conducts Phase I, II and III clinical trials; innovative drugs, not otherwise available to patients in Nevada, are made accessible in these trials. We have opened more than 105 clinical trials since it opened and began its program in 2005—including nine first-in-human trials.

The Clinical Trials Office prepares protocols, screens patients for protocol participation, monitors patients on protocols and manages data collected on clinical trial participants. Our Clinical Trials Office ensures that patients participate properly in the informed consent process and that protocols are interpreted and followed accurately. Within the Clinical Trials Office, there are research scientists to explain complicated scientific and medical goals to patients, family members, staff, and the community. The Clinical Trials Office works in conjunction with a Protocol Review Committee and Institutional Review Board to assure that clinical research is conducted safely.

Radiation Oncology—The Radiation Oncology Department has state-of-the-art equipment, such as a 1 Siemens Oncor linear accelerator with intensity modulated radiation therapy capabilities, a Siemens Emotion 6 CT Simulator and a second linear accelerator device (TomoTherapy Hi-Art system™).

Additionally, the department

is hard wired—connected to the Institute's diagnostic radiology for sophisticated PET and MRI image fusion. This process generates the most accurate treatment volume delineation available. Alternatively, diagnostic studies can be easily accommodated from outside imaging departments on CD ROM. All of Radiation Oncology's equipment, radiology and written records are seamlessly integrated with the IMPAC electronic medical record system.

With high-tech radiotherapy for prostate, and head and neck cancer, can be delivered to patients. Using PET-based image fusion capabilities, conformal lung treatment for lung cancer patients is also a treatment option. In July 2007, the department received accreditation by the American College of Radiation Oncology, a three-year certification. Real-time prostate seed implants for appropriate patients is now available (the department is a member of the Procura Seattle Prostate Institute quality assurance program). The department is an affiliate member of the Radiation Therapy Oncology Group.



Anita Pomerantz, M.D., along with David Pomerantz, M.D. head up Nevada Cancer Institute's Radiation Oncology Department.

Education is key to Nevada Cancer Institute's core value system. In addition to monthly tumor board presentations, NVCI also hosts in conjunction with Yale Cancer Center the annual John R. Murren Memorial Symposium. Nevada Cancer Institute Director, Nicholas J. Vogelzang, M.D. addresses a crowd at a recent Grand Rounds Lecture Series.

Advancing New Ideas and New Knowledge Are at the Heart of Our Work

With research, treatment and education initiatives Nevada Cancer Institute strives to reduce the burden of cancer for all Nevadans and our nation. Nevada Cancer Institute offers educational services for students, physicians and all members of the healthcare community. Nevada Cancer Institute has been granted provisional continuing medical education (CME) accreditation by the Nevada State Medical Association.

CME accreditation allows physicians to maintain knowledge of new developments in all medical fields, and earning CME credits is a state requirement for physicians. In addition, most member boards of the American Board of Medical Specialties have CME requirements for physician recertification. Nevada Cancer Institute's CME activities are open to physicians throughout the healthcare community.

"This is a significant milestone for the Institute and the collaborative effort to build continuing medical education programs in Nevada," said Phillip Dorsey, academic administrator and research finance officer. "We are honored and appreciative to our distinguished faculty and staff who have helped us reach this level."

Since March 2007, the Institute has been joint sponsoring CME activities with the University of Nevada School of Medicine in Reno. Acquiring individual accreditation allows Nevada Cancer Institute to provide CME credits and offer many more activities. Nevada Cancer Institute is also an approved provider for nursing continuing education credits. For additional information about our educational programs, please contact Nevada Cancer Institute at 702-822-5433 or visit www.nevadacancerinstitute.org.

Continued Medical Education

Tumor Board presentations

A multidisciplinary approach is an important part of patients' care at Nevada Cancer Institute (NVCI). Monthly tumor boards presentations are held about the current state of care for a particular cancer and are followed by a presentation of interesting and/or difficult cases. NVCI and community physicians have the opportunity to discuss various aspects of these cases including diagnosis with pathology and radiology presentations as well as treatment plans and can also discuss other recommendations for treatment. NVCI tumor boards also provide valuable medical education for all medical disciplines with the fundamental learning objective of understanding diagnosis, treatment, clinical trial options and outcomes for the specific malignancy discussed.

December 18, 2008 (12-1 p.m.) Ovary Cancer presented by Assistant Member, Breast Cancer Oncology Division, Karen Milligan, Assistant Professor of Medical Oncology; Director of the Lance Armstrong Foundation Clinical Survivorship Program, Medical Director of Oncology Services at University Medical Center

Grand Rounds Lecture Series

November 14, 2008 (12-1 p.m.)

"Cancer Survivors: Charting an Agenda for Research, Treatment and Quality of Care"

Presented by Patricia Ganz, M.D., Professor of Health Services and Medicine, UCLA Schools of Medicine and Public Health, Division of Cancer Prevention and Cancer Research

LEARNING OBJECTIVES: Following the lecture, participants should be able to:

1. Recognize the demography of cancer survivorship
2. Identify the deficits in coordination and quality of care for survivors
3. Describe research opportunities related to survivorship

CME Accreditation and Designation

NVCI is accredited by the Nevada State Medical Association to provide continuing medical education to physicians.

NVCI designates this educational activity for a maximum of 1.0 AMA PRA Category 1 Credit(s)[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The Nevada State Board of Nursing allows licensed nurses to apply CME Category 1 credit toward the renewal of their nursing license.

Unless otherwise noted, lectures and presentations are held at Nevada Cancer Institute, One Breakthrough Way, Las Vegas, Nevada 89135. For information, contact NVCI at 702-822-5433.

SAVE THE DATE: December 3, 2008

Grand Round Lecture (12-1 p.m.) Hilary Calvert, M.D., Clinical Director of Northern Institute for Cancer Research, The University of Newcastle upon Tyne, U.K.

SAVE THE DATE: December 12, 2008

Grand Round Lecture (12-1 p.m.) David Nanus, M.D., Co-Division Chief, Division of Hematology and Medical Oncology, Weill Cornell Medical College of Cornell University

SAVE THE DATE: March 27-28, 2009

3rd Annual John R. Murren Memorial Symposium: Advances in Genitourinary Treatment

Yale School of Medicine and Nevada Cancer Institute (NVCI) are pleased to announce that the 3rd Annual John R. Murren Memorial Symposium will be held at the Red Rock Resort & Spa Las Vegas, Nev., March 27 and 28, 2009. John Murren, M.D., was the Director of the Medical Oncology Clinical Services at the Yale Cancer Center and among the founders of NVCI. In advancing his efforts, course directors, W. Kevin Kelly, M.D., Nicholas Vogelzang, M.D., and Giuseppe Pizzorno, Ph.D., Pharm.D., have gathered renowned national and international faculty who will provide evidence-based education to multidisciplinary clinicians involved in the screening, diagnosis and treatment of patients with genitourinary cancers.



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