#### **CANCER SPECIALISTS**



We're fortunate to have a team of excellent cancer specialists here at SAGE. As cancer therapies have advanced, our board-certified oncologists have kept abreast of the latest treatments to provide comprehensive options for your pet.



During your consultation, your oncologist will speak with you about your pet's condition and review records provided by your primary care veterinarian.



If a diagnosis of cancer has already been confirmed, the oncologist will discuss the best treatment choices for your pet.



If a diagnosis has not yet been made, your oncologist will speak with you about specific tests or other diagnostics to make that confirmation.



Before any treatment begins, your oncologist will perform a thorough systemic evaluation of your pet, a process called "staging."



Depending on the type of cancer suspected, staging may include chest x-rays, ultrasound, tissue sampling, CT scan, or specialized blood tests.



The results will determine the extent of the disease, telling us if the cancer has spread or how involved it is locally. This knowledge will help the oncologist decide on the best treatment plan for your pet.

## SAGE LOCATIONS



# ONCOLOGY



#### IMPROVING THE LIVES OF PETS AND THEIR PEOPLE



#### **US** CHEMOTHERAPY

We administer specific drugs in our chemotherapy treatments to target the rapidly growing cancer cells. These drugs are toxic to the cancer cells and eventually kill them, making chemotherapy the most effective treatment for some types of cancers, such as lymphoma.

In addition to destroying cancer cells, the goal of chemotherapy is to achieve remission, or the delay or prevention of local recurrence of the cancer. Chemotherapy also attempts to stop metastasis, or the spread of the cancer, to other parts of the body. Your oncologist will devise a treatment protocol specifically for your pet, which may include the use of injectable or oral chemotherapy drugs. This customized plan will offer the best opportunity for remission and a good quality of life for your pet.

In general, dogs and cats tolerate chemotherapy much better than people do, so they experience fewer side effects. Before initiating chemotherapy, your oncologist will review the potential side effects of any recommended chemotherapy drugs.

#### **V** ELECTROCHEMOTHERAPY



Electrochemotherapy (ECT) is a novel cancer treatment that combines electroporation with chemotherapy. **Because the cell membrane can act as a barrier to chemotherapy drugs, electroporation is used to deliver electric pulses to cells and increase pores in the cell membrane.** If there is chemotherapy in the area of the cell, the chemotherapy can then **penetrate the cell membrane** 

during the delivery of the electric pulses and enter the tumor cell more readily to help combat tumor growth.

ECT can be used to treat many different tumor types. Patients are dropped off in the morning and go home the same day. Animals will undergo very light, short (5-10 minute) anesthesia for the treatment.

SAGE is proud to have been the first veterinary practice in California to offer ECT. SAGE specialists in any of our four locations can recommend ECT for your pet.

#### **CRYOTHERAPY**

Some forms of skin cancer, such as squamous cell carcinomas, can be removed with cryotherapy. This process uses liquid nitrogen to freeze the affected area, essentially destroying the cancer cells.

Cryotherapy can be repeated if the cancer returns.

### 🔗 RADIATION THERAPY

As in human medicine, radiation therapy is a highly focused treatment approach for some cancers in veterinary medicine. This method uses high-energy radiation to target and kill cancer cells.

Radiation therapy requires very specialized equipment, and SAGE is proud to house one of the most technologically advanced linear accelerators in the nation at our Campbell location. If your oncologist recommends radiation therapy, a potential first step will be to have your pet undergo a CT scan. This scan will generate a two-dimensional image that can be used to conform the radiation field to the cancerous area, thereby limiting the amount of radiation exposure to normal tissues whenever possible. Your oncologist will speak with you about using radiation therapy as a standalone treatment for your pet's cancer or suggest using it in conjunction with chemotherapy or surgery.

#### STEREOTACTIC RADIOSURGERY



Stereotactic radiosurgery (SRS) has been the standard in human medicine for decades; it is new to veterinary medicine. SAGE partners with PetCure Oncology to deliver SRS to patients with tumors in complex

or delicate locations, such as the brain, spine, or lungs. These locations have previously been considered a challenge to treat with standard radiation therapy (RT). While the name has "surgery" in it, **SRS refers to precise targeting of the tumor with radiotherapy;** neither the patient nor the tumor undergoes surgery using SRS.

Reducing time in the hospital is one of the biggest benefits of SRS. An entire SRS treatment course is delivered in 1-3 treatments, an 80-95% reduction in anesthetic events when compared to conventional RT.

#### **IMMUNOTHERAPY**



With immunotherapy, your pet's own immune system will be used to attack the cancer cells. Immunotherapy is now being used to treat malignant melanoma, which is very common in dogs. A malignant melanoma vaccine is available only through board-certified veterinary oncologists. Our oncologists use the vaccine in conjunction with standard melanoma therapy by administering the vaccine injections every other week for a total of four vaccinations, which are followed by booster shots every six months.

### 🖁 SURGERY

For many types of cancer, surgery is the preferred treatment as it can be curative for some patients. If surgery is an option for your pet's type of cancer, your oncologist will work closely with a SAGE surgeon to formulate a surgical plan. They will talk to you about the goals of surgery and discuss if additional treatment options may help to achieve remission or improve your pet's quality of life.

#### CLINICAL TRIALS

SAGE participates in clinical trials designed to find new treatments, and we share information about clinical trials that our partners are leading. Some of the trials we have been a part of include research into specific types of tumors, as well as personalized drug combinations to combat cancer and infectious diseases. Visit **sagecenters.com/clinical-trials** to learn more.

