Background & Purpose
- Oral melanoma can be resistant to radiation therapy because of low levels of oxygen in the tumors. Another reason is that low levels of oxygen leads to local immune suppression. We anticipate that the treatment will carry oxygen to the tumor and hopefully restore normal oxygen levels to the tumor and make it more responsive to treatment.

Participation Requirements
- Dogs diagnosed with a biopsy-confirmed melanoma
- A physical examination, a CBC, a Chemistry Panel and chest X-rays to make sure they are eligible for the trial

Procedures
- **Day 1**: Administer a drug to mark oxygen levels, collect blood, biopsy your dog’s tumor under anesthesia, do a CT scan to plan for radiation therapy and administer the oxygen carrier
- **Day 2**: Administer another oxygen marker and biopsy your dog’s tumor while under anesthesia
- **Day 4**: Collect blood, biopsy your dog’s tumor under anesthesia, and begin your dog’s radiation treatment
- Collect another biopsy after the second radiation treatment
- Collect blood after the third and fourth radiation therapy sessions (each one week apart as part of the normal course of treatment).

Owner Responsibilities
- Keeping all scheduled appointments
- Ensuring that your dog has not eaten food for at least 12 hours prior to any anesthetic procedure
- Covering costs associated with the radiation therapy

Benefits
- The study will cover costs associated with study drugs, drug administration, day hospitalizations, the radiation planning CT scan and the associated anesthesia, blood work, biopsies, up to $2,000 in medical costs if there is an unanticipated side effect from the study and provide up to $2,000 credit onto your dog’s medical bill at the end of the study to be used toward radiation therapy costs.
- Results from this study may lead to an improvement of your dog’s response to treatments such as radiotherapy.