

Studying cancer in pet dogs to find new treatments for human patients

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A team of scientists at the National Cancer Institute (NCI) in Bethesda, USA, says that studying pet dogs with cancer could yield valuable information on how to diagnose and treat human cancers. In this week's *PLoS Medicine*, the team discusses an ongoing initiative in which spontaneously occurring cancers in dogs are being studied to help inform the development of new cancer drugs, devices and imaging strategies for human cancer patients.

Estimates suggest that as many as 1 million new diagnoses of cancer occur in [dogs](#) in the United States each year. The condition is treated much like human cancer, with surgery, radiation, and chemotherapy. [Pet](#) owners are often motivated to pursue novel and investigational treatments with their veterinarians.

The team of scientists at the Centre for Cancer Research at the NCI, led by Dr. Chand Khanna, believes that studying these new therapies in clinical trials with dogs may yield insights into how to improve care for human patients. Naturally occurring tumors in dogs have clinical and biological similarities to the human disease.

Khanna and colleagues say that a pet owner's decision to pursue an experimental therapy is influenced by a number of factors, especially the possible risks and benefits of the new therapy and the reduced costs for care provided by the investigational trial.

Additionally, they say, "many pet owners are motivated by the

opportunity to contribute to the advancement of cancer treatment for future human and canine patients."

The study of [cancer biology](#) and treatment in animals with naturally occurring cancers, known as comparative oncology, is not a new concept. Over the last 30-40 years investigators have used this approach to advance understanding and treatment of several human cancers, such as [bone cancer](#) (osteosarcoma), lymphoma, and melanoma.

More information: Gordon I, Paoloni M, Mazcko C, Khanna C (2009) The Comparative Oncology Trials Consortium: Using Spontaneously Occurring Cancers in Dogs to Inform the [Cancer](#) Drug Development Pathway. PLoS Med 6(10): e1000161.
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