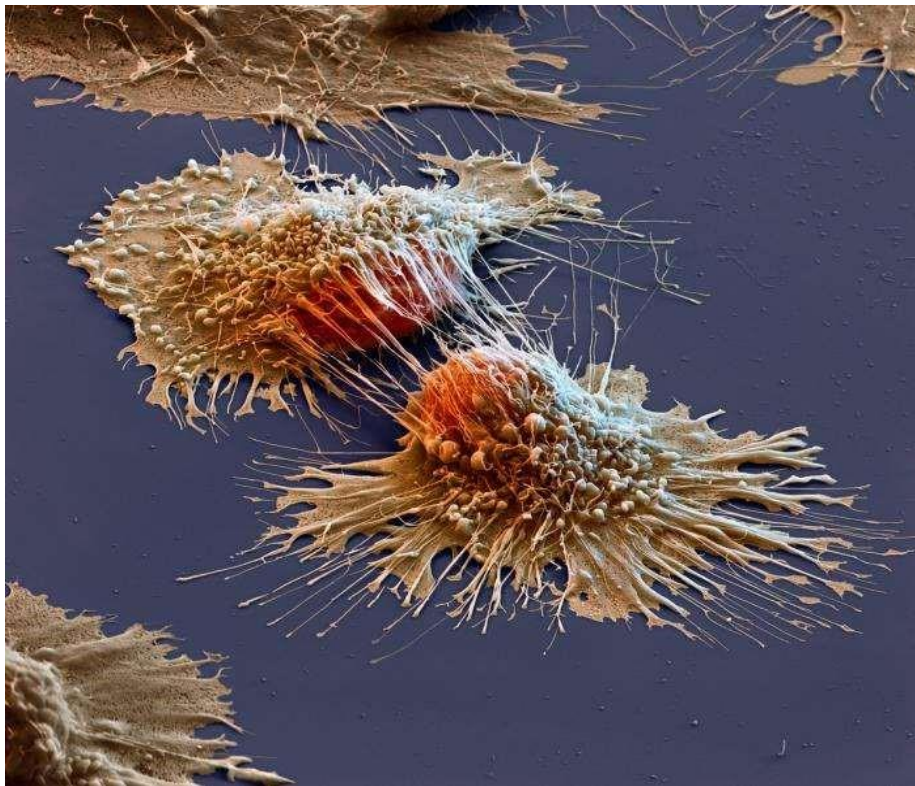




**Breakthrough Treatment for Cancer: Targeting Phages that Have Been
Programmed to Eradicate Malignant Tumors**

A Metastasizing Cancer Cell

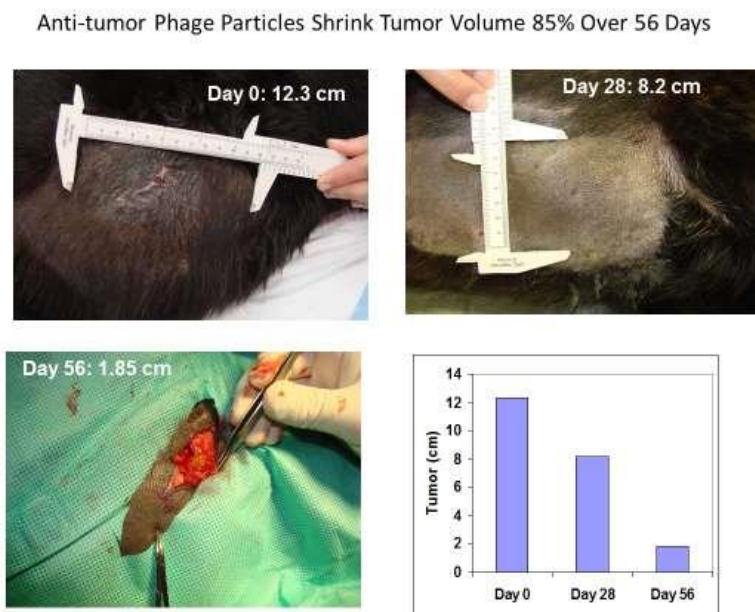


Executive Summary of the Novel Anti-Cancer Therapy

Medical researchers at the USA National Cancer Institute and the MD Anderson Hospital in Houston, TX have developed novel anti-cancer agents which are being prepared to enter the clinic for testing against an array of malignant human tumors.

The new drugs have been designed to selectively bind to specific targets on the cancer cell itself and on the unique vasculature of malignant tumors. As seen below in Figure 1, these phages dramatically shrink a naturally occurring sarcoma in dogs in trials done at the US National Cancer Institute.

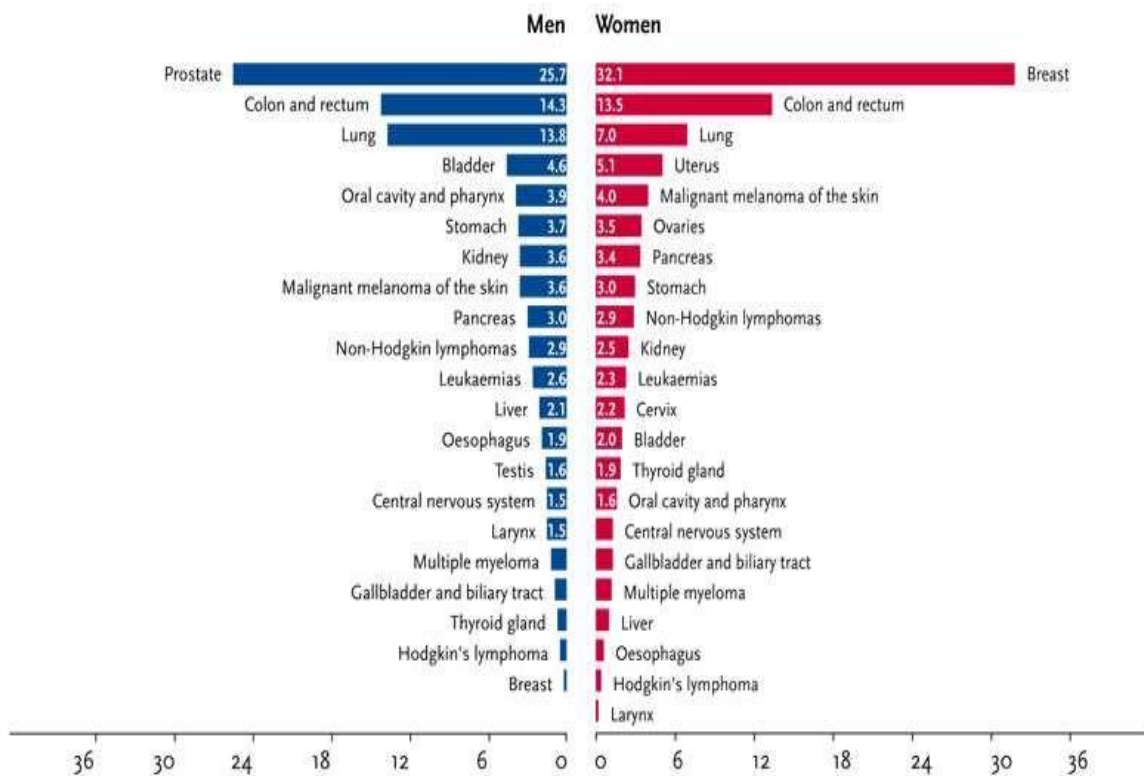
Figure 1: An 85% reduction in tumor volume after treatment of a canine solid sarcoma tumor with anti-tumor phage particles. Panels left to right show volume of tumor at day 0 and its subsequent shrinkage at day 28 and 56 after two injections of the phage anti-tumor particles.



A library of these anti-phage tumor particles has been created to attack a number of the vast array of solid cancers that comprise well over 80% of the malignancies that develop in men and women as shown in Figure 2 below. The most promising of these particles and the one that is furthest advanced is a compound that selectively targets a unique target in the blood vessels supplying the solid cancers. It has long been known that the tumor vasculature is “leakier” than in normal tissues and this leakiness has led to the exposure of novel targets in the tumor which researchers have exploited to develop highly selective “toxic” phage particles that hone in on the tumor vasculature without effecting other blood vessels in the body.

With dramatic efficacy demonstrated in a number of trials carried out by medical researchers at the US National Cancer Institute and the MD Anderson Hospital, coupled with a very attractive side effect profile, these novel anti-cancer phage particles are now ready to advance into human studies.

Figure 2 *Types of Human Cancers and Their Prevalence in Men and Women. Cancers of various organs and tissues and their % prevalence. Solid cancers tissues represent well over 80% of the types of cancer that occur in the human body.*



I. Background

Cancers figure among the leading causes of morbidity and mortality worldwide, with approximately 14 million new cases and 8.2 million cancer related deaths in 2012 as shown in Figure 3 below. The number of new cases is expected to rise by about 70% over the next 2 decades.

Figure 3: Worldwide Cancer Statistics

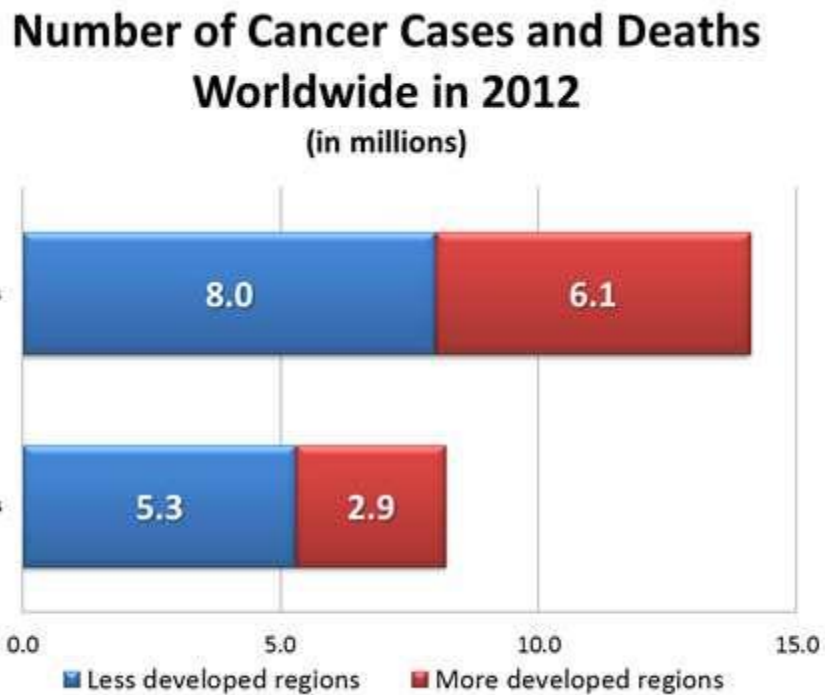
This year about 564,800 Americans are expected to die of cancer—more than 1,500 people a day. Cancer is the

cause
the

only

One of
deaths
is

Since
there



Source: GLOBOCAN 2012

second leading of death in US, exceeded by heart disease. every four in the US from cancer. 1990, have been

approximately five million cancer deaths.

In addition, as shown in Figure 4 below the occurrence of new cases of cancer increases as a person ages, with the likelihood of developing cancer significantly higher as a person enters into their fifth and sixth decade of life.



Developing a Better Life for the World

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