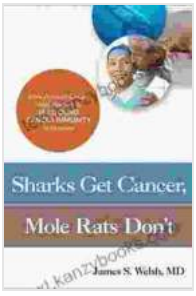
How Animals Could Hold The Key To Unlocking Cancer Immunity In Humans

Cancer is a devastating disease that affects millions of people worldwide. Despite advances in treatment, many cancers remain incurable. However, new research is suggesting that animals may hold the key to unlocking cancer immunity in humans.

The Power of Animals' Immune Systems

Animals have evolved over millions of years to develop incredibly sophisticated immune systems that protect them from a wide range of diseases. These immune systems have evolved in response to the unique challenges that animals face, such as exposure to parasites, bacteria, and viruses.



Sharks Get Cancer, Mole Rats Don't: How Animals Could Hold the Key to Unlocking Cancer Immunity in Humans by MD James S. Welsh

4.2 out of 5

Language	: English
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Enhanced typesetting	: Enabled
Word Wise	: Enabled
Print length	: 408 pages
Screen Reader	: Supported

One of the most important components of the animal immune system is the ability to recognize and kill cancer cells. Cancer cells are cells that have undergone genetic mutations that allow them to grow and divide uncontrollably. In healthy animals, the immune system is able to identify and destroy these cancer cells before they can form tumors.

How Animals Can Help Us Understand Cancer

Scientists are studying the immune systems of animals to better understand how they can be used to fight cancer in humans. One area of research is focusing on the role of immune cells called natural killer (NK) cells. NK cells are a type of white blood cell that is able to recognize and kill cancer cells without the need for prior sensitization.

Studies have shown that NK cells from animals are more effective at killing cancer cells than NK cells from humans. This is because animal NK cells have evolved to be more resistant to the immunosuppressive effects of cancer cells. Scientists are now working to develop new therapies that can harness the power of animal NK cells to fight cancer in humans.

Another area of research is focusing on the role of the microbiome in cancer immunity. The microbiome is the community of bacteria, viruses, and other microorganisms that live in the body. Scientists are now learning that the microbiome plays an important role in the development and progression of cancer.

Studies have shown that animals with a healthy microbiome are more resistant to cancer than animals with a disrupted microbiome. This is because the microbiome helps to regulate the immune system and protect the body from infection. Scientists are now working to develop new

therapies that can restore the balance of the microbiome and improve cancer immunity.

The Future of Cancer Treatment

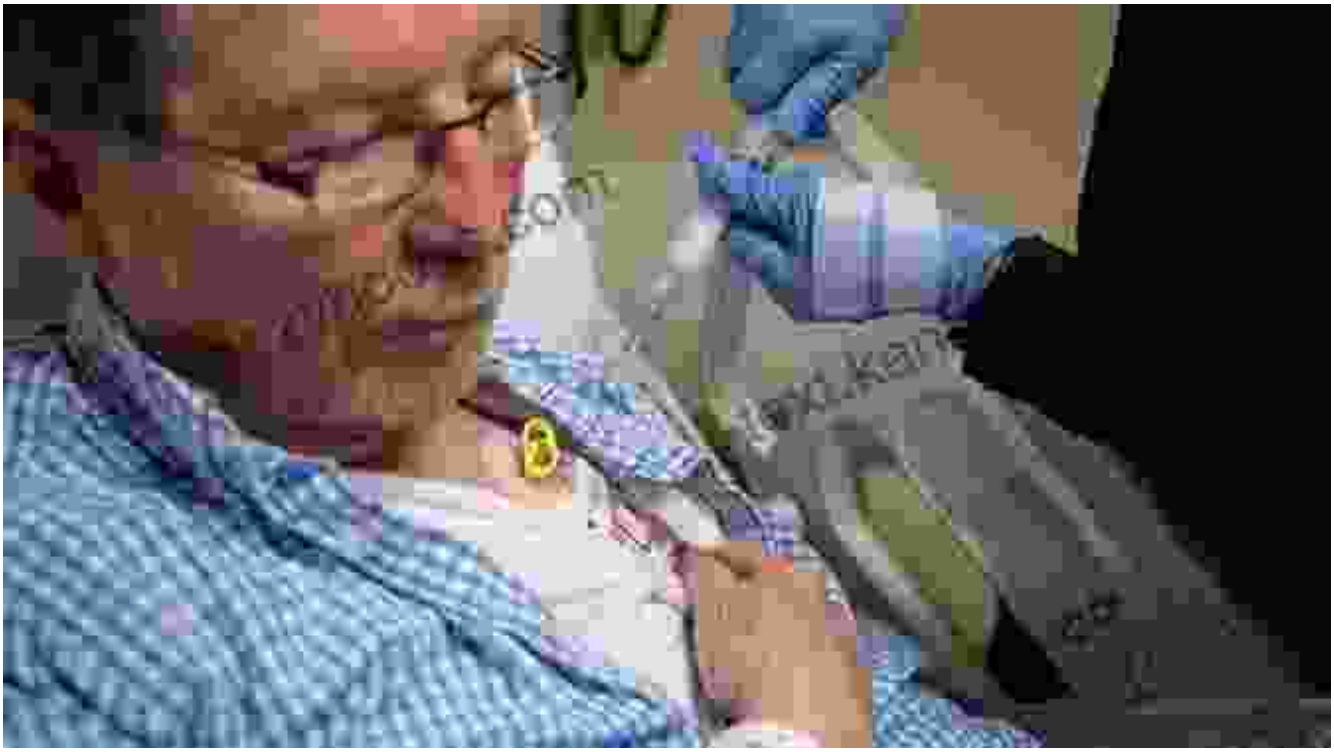
The research on animals is providing new insights into the development and progression of cancer. This research is also leading to the development of new therapies that could revolutionize the way that cancer is treated. In the future, it is possible that animals could play a key role in unlocking cancer immunity in humans and helping us to overcome this devastating disease.

Additional Information

For more information on the research on animals and cancer immunity, please visit the following websites:

- National Cancer Institute: Animal Models
- Cancer Research UK: Animal Models Help in the Development of New Cancer Treatments
- Nature: Animal models of cancer immunity

Related Images



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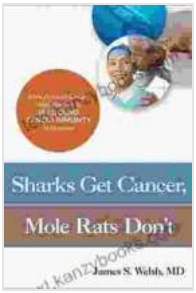

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