

Cancer Immunotherapy

The most promising cancer treatment of our time.



Current treatment options for cancer include surgery, chemotherapy, immunotherapy and radiation.

Focused ultrasound is an early stage, noninvasive therapeutic technology with the potential to improve the quality and longevity of life and decrease the cost of care for patients. Focused ultrasound may enhance cancer immunotherapy and replace or complement surgery and radiation treatment by harnessing the intrinsic powers of the body's own immune system.



Focused Ultrasound and Cancer Immunotherapy

▶ **Double** the impact of your gift.

We have launched a five-year, \$60 million campaign of which at least \$5 million will be dedicated to cancer immunotherapy research.

Thanks to the generosity of an anonymous donor who believes in this promising research, every gift toward the **Cancer Immunotherapy Campaign** will be matched, dollar-for-dollar, up to \$2 million. Time is limited to double your gift. The Foundation leverages knowledge and funding by working with leading organizations in the immunotherapy field, such as the Cancer Research Institute and the Parker Institute for Cancer Immunotherapy. ■



► **Help us fund research** in laboratory and clinical trials that advances the field's understanding of focused ultrasound's role in immune-based treatment of cancer.

Explaining the treatment

In **Cancer Immunotherapy and Focused Ultrasound**, Kelsie Timbie, PhD, *Scientific Programs Manager*, narrates a brief video introduction to how the two fields intersect. ■

Chief Scientific Officer Jessica Foley, PhD, discusses the Foundation's Cancer Immunotherapy Program in **Focused Ultrasound and Cancer Immunotherapy**. ■



Focused ultrasound has been shown in preclinical laboratory studies and clinical trials to enhance the body's response to immunotherapeutic medications by providing an initial immune response on which the drug can then capitalize. Additionally, focused ultrasound can be used to enhance the delivery of immunotherapeutics to tumors. The benefits:

Noninvasive | No incisions, no risk of infection or bleeding, less pain and rapid recovery

Image guided | Minimal damage to surrounding healthy tissue

No ionizing radiation | Fewer side effects and can be safely repeated

Initiation of an anti-tumor immune response | Destruction of tumor cells leads to exposure of tumor antigens, which can then be recognized and targeted by the body's immune system

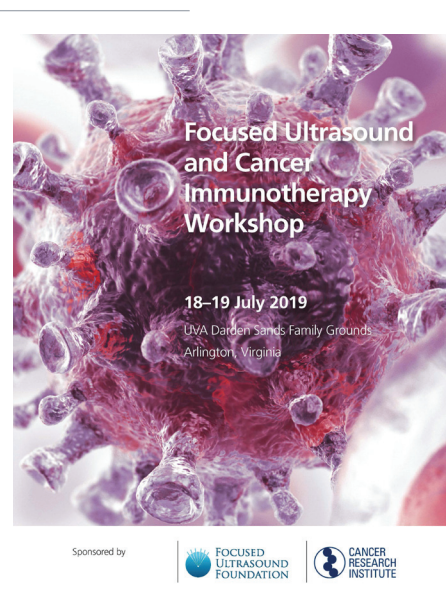
Potential to enhance the effectiveness of immuno-oncology drugs

Outcomes

All cancers can potentially be treated with immunotherapy. A \$5 million campaign will support preclinical laboratory studies and clinical trials assessing focused ultrasound in combination with immunotherapy to treat: brain tumors, breast cancer, liver cancer, melanoma, ovarian cancer, pancreatic cancer, and prostate cancer.

Help answer the key questions

- 1 What are the comparative immune effects induced by different focused ultrasound modes?
How do these compare to other therapies?
- 2 How do the immune effects of focused ultrasound vary by tumor type?
- 3 What clinical disease targets are ideal for focused ultrasound plus immunotherapy combinations?
- 4 How can we optimize focused ultrasound treatments for immunomodulation?
- 5 What metrics can be used to predict clinical success?



Convening the Community

The Foundation recently co-hosted a **workshop** with the Cancer Research Institute to bring together immunotherapy experts to discuss the state of the field, determine next steps, and set priorities for continuing to explore using focused ultrasound in combination with several types of immunotherapy. ■

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About Focused Ultrasound Foundation

The Focused Ultrasound Foundation is an entrepreneurial, high-performance, medical research, education and patient advocacy organization headquartered in Charlottesville, VA. On the leading edge of venture philanthropy and social entrepreneurship, the Foundation has demonstrated success in accelerating the development and adoption of focused ultrasound, an early-stage, noninvasive therapeutic technology that could transform the treatment of many medical disorders. The Foundation is a 501 c (3) tax-exempt organization that uses donor funding to bridge the gap between laboratory research and widespread patient treatment.

For more information

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