Focused Ultrasound Therapy in Radiation Oncology: FUS Foundation Perspective

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The potential of focused ultrasound has never been more apparent. Effective therapies to treat cancer, Parkinson’s disease, epilepsy and brain tumors as an alternative or adjunct to surgery, radiation or chemotherapy are now on the horizon, no longer beyond it.

Furthermore, focused ultrasound research continues to expand into new and exciting therapeutic areas. One such area of research aims to develop focused ultrasound as a tool in radiation oncology - to be used either as a standalone therapy or in combination with radiation and/or drug therapies, to enhance the efficacy of these standard therapies or to reduce their side effects. Early work suggests that focused ultrasound can produce bioeffects beyond thermal ablation, including sensitization to chemotherapy and/or radiation, and immunomodulation.

Despite the significant progress and advancement to develop focused ultrasound therapies for a wide range of clinical applications, clinical adoption remains a hurdle. To this end, the Focused Ultrasound Foundation was established in 2006 to accelerate the development and widespread clinical adoption of focused ultrasound technology. Current and future investments by the Foundation aim to promote this burgeoning area of focused ultrasound therapy in oncology.

This presentation will highlight recent advancements of FUS therapy in oncology, discuss the adoption and development landscape for the field, and share the Foundation’s strategy for advancing this field including funding, awareness building, workshops and other opportunities for collaboration.