

Biological Concepts in Thermal Biology and Dosimetry for Ablation
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Therapeutic heating or cooling of tissue leads to a unique cascade of molecular events that can impact cell signaling, proliferation, metabolism, survival as well as other cellular and physiological events. An understanding of the biological underpinnings of thermal ablation aids in explaining the mechanisms of tissue damage and concepts associated with dosimetry as well as elucidating opportunities for complimentary and synergistic therapies. The educational goals of this talk are to:

- Review current concepts of biology of hyperthermia and ablation.
- Review current concepts of cryobiology.
- Discuss unique challenges and opportunities of thermal therapies based on the biological response of tissue to therapy.