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ABSTRACT

A method and apparatus for *in vivo* electroporation therapy. Using electroporation therapy (EPT) as described in the invention, tumors treated by a combination of electroporation using the apparatus of the invention and a chemotherapeutic agent caused regression of tumors *in vivo*. In one embodiment, the invention provides a method of EPT utilizing low voltage and long pulse length for inducing cell death. One embodiment of the invention includes a system for clinical electroporation that includes a needle array electrode having a "keying" element that determines the set point of the therapy voltage pulse and/or selectable array switching patterns. A number of electrode applicator designs permit access to and treatment of a variety of tissue sites. Another embodiment provides a laparoscopic needle applicator that is preferably combined with an endoscope for minimally invasive EPT.