



Southern Illinois University System

### Applications

- Surgical instruments
- Interstitial thermal therapy

### Inventors

Eric Leuthardt, MD

*Dr. Leuthardt is a physician and professor in the division of neurological surgery for the Washington University School of Medicine in St. Louis.*

Jenna Gorlewicz, PhD.

*Dr. Gorlewicz is an assistant professor of mechanical engineering at Saint Louis University.*

Mahmood Rezapour, MS

*Mr. Rezapour earned his master's degree in mechanical engineering from SIU Edwardsville in 2015.*

### Contact

Robert Patino, JD

Director

[rpatino@siumed.edu](mailto:rpatino@siumed.edu)

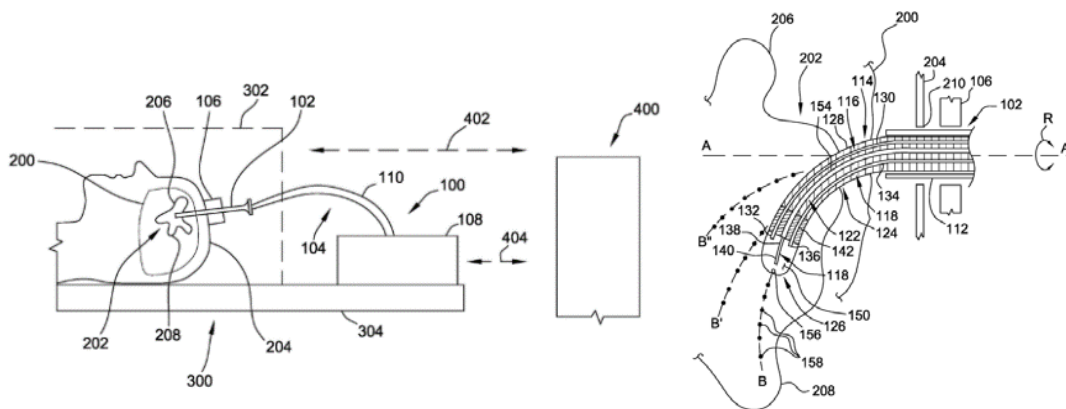
(217) 545-3824

## Thermoablation Probe

Thermoablation for the treatment of brain lesions involves interstitial thermal therapy (ITT) procedures by which brain lesions are heated from within. Conventional thermoablation probes for performing an ITT procedure on a brain lesion are rigid, shaft-like structures deployable within the lesion only along a straight-line path. While these straight-line probes can be effective at radiating the regions of the lesion that are immediately adjacent the linear path of deployment, these probes are relatively ineffective at treating peripheral regions of the lesion that are offset from the linear path of deployment beyond the range of the probe's radiant energy. Therefore, there is a need to provide a more versatile thermoablation probe for effectively treating brain lesions of various shapes and sizes.

### Invention

SIU researchers have developed a thermoablation probe for performing an interstitial thermal therapy (ITT) procedure on brain lesions which generally includes a rigid sheath and a flexible treatment device which slides telescopically within the sheath. The treatment device has a substantially continuous covering and a shape-memory wire enveloped by the covering.



### Key Advantages

- More versatile as it does not require a straight line of application
- User can define the curved axis

### Status

U.S. patent application #10,751,123 was issued on August 25, 2020. The technology is available for license.

*Other opportunities related to this technology, included but not limited to sponsored and/or collaborative research, may be available. Please reach out to the designated contact identified at left for more information.*