

Docket #: S24-370

Device for Precise Tunneling of Surgical Drains

Stanford scientists have invented a device to improve the tunneling of surgical drains, addressing a significant need in surgical procedures. Current methods of tunneling drains are blind and require excessive force, and thus are unwieldy, imprecise, and carry significant risk of injury to both patients and surgeons.

This device features a hand-held guide member with an elongate body and two arms. The arms create an open area for tissue positioning. One arm incorporates a seat to securely hold the hub of the surgical drain tubing. The second arm includes a passage to guide a trocar, which creates a tunnel through soft tissue and then engages with the drain tubing's hub, allowing it to be pulled through the tunnel with the trocar. This system allows for accurate drain placement while minimizing the risks associated with manual techniques.

Stage of Development

Prototype

Applications

- Surgical procedures requiring drain placement

Advantages

- Improves precision in drain tunneling
- Reduces risk of injury to patient vital structures
- Reduces risk of occupational injury to surgeons
- Enhances speed and efficiency of surgical procedures
- Potentially applicable across various surgical specialties

Patents

- Published Application: [WO2026136997](#)

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