

## **Tissue Clamp for Repeated Opening and Closure of Incisions/Wounds**

### **Summary**

This surgical clamp device is particularly useful for intraocular surgeries requiring incision in the sclera. The device provides ease of use for repeated opening and closure of an incision or wound for entry of instruments into the eye. It maintains precise alignment of the wound margins, reducing loss of intraocular fluid and pressure. The NEI seeks licensees or collaborative co-development of this invention so that it can be commercialized.

### **NIH Reference Number**

E-293-2016

### **Product Type**

- Devices

### **Keywords**

- ocular surgery
- clamp
- sclera incision closure

### **Collaboration Opportunity**

This invention is available for licensing and co-development.

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### **Description of Technology**

Medical clamps currently available are not efficient nor are they sufficiently precise in closure and alignment of the edges of an incision or wound. Many available designs are difficult to use and handle, especially in situations where repeated opening and closure of an incision or wound is required. The functional short-comings of existing clamp designs may result in surgical complications, such as excess loss of fluids and pressure and hemostasis during some procedures. These functional deficiencies may increase the difficulty and expense of a surgery or altogether limit the ability to perform some procedures.

This clamp design is functionally superior in its ease of use and capability to precisely keep in alignment incision or wound margins during repeated opening and closure. As a result, a surgeon using this clamp is able to quickly open or close an incision or wound, as needed. This ability is a critical attribute where there is need to insert instruments, sometimes repeatedly, through an incision or wound. These superior functionalities reduce potential for fluid loss, which is especially critical in procedures such as intraocular surgeries where maintaining fluid balance avoids serious complications. Excessive loss of intraocular fluid balance during surgery can result in collapse of the eye, hemorrhage, and retinal detachment. This clamp design may improve outcomes of many surgeries and potentially enable new procedures presently too risky to undertake with current clamp devices.

This invention is available for licensing and/or collaborative development partnerships.

### **Potential Commercial Applications**

- Intraocular surgeries requiring incision in sclera
- Rapid closure of traumatic wounds

### **Competitive Advantages**

- Maintains more precise alignment of the wound margins
- Permits easy reopening and entry into the incision or wound and repeated closure
- Reduces fluid loss from wound or incision, helps maintain hemostasis
- Guides and controls placement and depth of sutures

### **Inventor(s)**

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### **Development Stage**

- Pre-clinical (in vivo)

### **Patent Status**

- **U.S. Provisional:** U.S. Provisional Patent Application Number 62/419,809, Filed 09 Nov 2016

### **Related Technologies**

- [E-251-2012 - Novel Methods for Generating Retinal Pigment Epithelium Cells from Induced Pluripotent Stem Cells](#)

### **Therapeutic Area**

- Eye and Ear, Nose & Throat

### **Updated**

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