

Request Information

Permalink

Modification of Tissue

Tech ID: 23746 / UC Case 2013-843-0

FULL DESCRIPTION

Using this technique, the modification of tissue can be used to alter the mechanical structure of tissues including soft tissues like skin, cartilage, tendon, ligament, cornea, muscle and others.

University of California researchers have developed a technology that can alter the mechanical structure of living tissues. This technology creates changes in tissue using a unique means to control the delivery of energy and create specific user-defined reactions in localized or diffuse regions in the tissue. The technology allows separation of anodic and cathodic redox chemistry reactions to distinct sites that may be adjacent to one another or separated spatially.

This technology allows for the minimization of specific reactions and optimize the resultant shape and mechanical properties of the tissue without much (if any) tissue damage.

SUGGESTED USES

The invention will be used to develop a clinically useful system to alter the mechanical structure of tissue. It relies upon the fundamental principles to alter the complex chemical milieu in living tissue to achieve structural changes and macromolecular alterations in the tissue matrix. Using this technology, tissue can be stretched, bent, curved, strengthened or weakened. Direct applications include, but are not limited to: Field of Ophthalmology: vision correction, Surgery: Alteration of cartilage to change facial structure and other medical applications such as lengthening and tightening of tendons and ligaments.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	11,123,128	09/21/2021	2013-843
United States Of America	Issued Patent	11,071,578	07/27/2021	2013-843
United States Of America	Issued Patent	10,939,950	03/09/2021	2013-843
United States Of America	Issued Patent	9,877,770	01/30/2018	2013-843

CONTACT

Richard Y. Tun  
tunr@uci.edu  
tel: 949-824-3586.



OTHER INFORMATION

CATEGORIZED AS

- » Medical
- » Devices
- » Other

RELATED CASES

2013-843-0

