Supplement

The tropoelastin and lysyl oxidase treatments increased the content of insoluble elastin in bioprosthetic heart valves

Method

In vivo rat subdermal implantation model

All treated tissues (1cm*1cm each) were washed thoroughly with 50 mL sterile PBS buffer and ready for implantation. Male Sprague-Dawley (SD) rats, 150-200 grams each, were anesthetized by intraperitoneal injection with 3% pentobarbital sodium solution at the dose of 1mL/1kg. Two dorsal surgical incisions were made, and two subdermal pockets were created on either side. One pericardium was placed in each pocket and the two pockets containing the same sample. Six specimens in each group were implanted. Incisions were closed with surgical staples and samples together with fibrous capsule were explanted after 30 days' implantation. Half of the explanted tissue was saved for histology. The other half was frozen for calcium content analysis.

Result

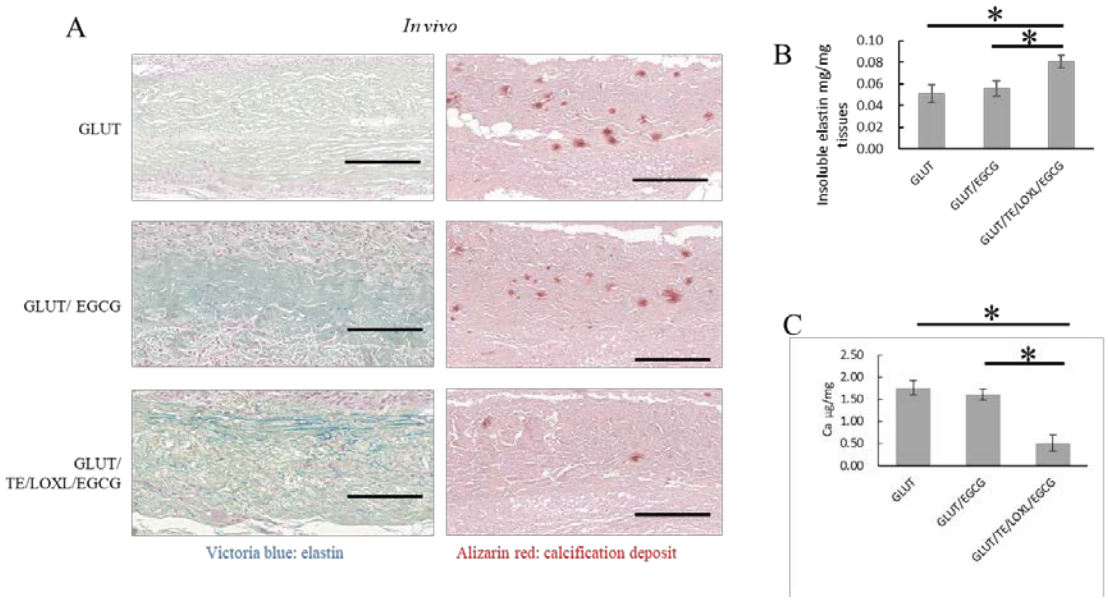

Fig S1. A. Victoria blue and Alizarin red stains for elastin and calcification deposits in samples of *in vivo* 30 days 'rat subdermal implantation model. Scale bar: 100 µm. B. Insoluble elastin quantification for each group. The insoluble elastin in GLUT/TE/LOXL/EGCG were significant higher than GLUT and EGCG/GLUT control. C. Calcium content of each explants. The asterisk (*) means significant difference ($p < 0.05$) between the compared two groups. N=6.