

Biocasting of an Elastin-Like Recombinamer and Collagen Bi-Layered Model of the Tunica Adventitia and External Elastic Lamina of the Vascular Wall

Miguel González-Pérez,^a Dimitria Bonizol Camasão,^b Diego Mantovani,^b Matilde Alonso,^a José Carlos Rodríguez-Cabello^{*a}

^a BIOFORGE (Group for Advanced Materials and Nanobiotechnology), CIBER-BBN, University of Valladolid, 47011 Valladolid, Spain.

^b Laboratory for Biomaterials and Bioengineering, Canada Research Chair I in Biomaterials and Bioengineering for the Innovation in Surgery, Department of Min-Met-Materials Engineering, Research Center of CHU de Québec, Division of Regenerative Medicine, Laval University, Québec, QC Canada G1V 0A6.

*Corresponding author: roca@bioforge.uva.es

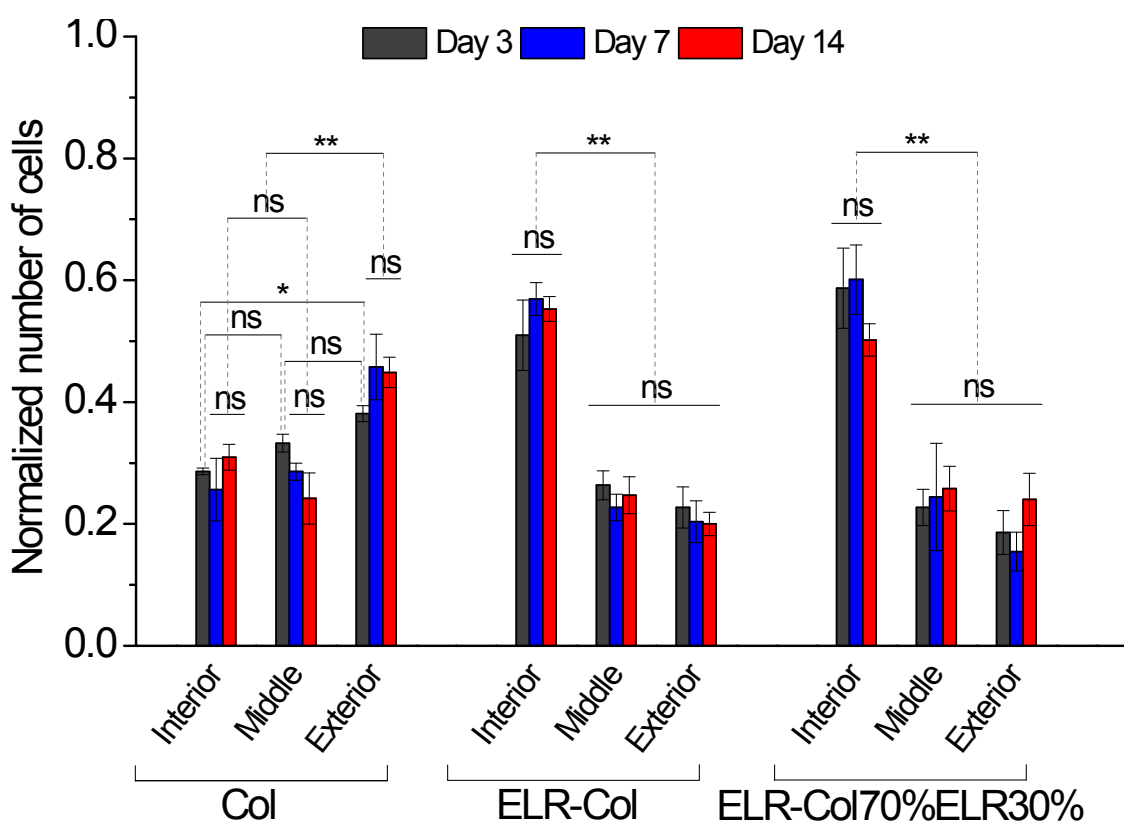


Figure ES1. Normalized distribution of HDFn cells in the internal, middle and external regions of the collagen matrix in the Col, ELR-Col and Col-ELR-Col70%ELR30% models at days 3, 7 and 14. Cells were manually quantified in randomly chosen hematoxylin and eosin stained samples separated in interior, middle and exterior sections of equal area and normalized against the total number of cells. "Interior" corresponds to the internal region of the collagen layer in contact with the mandrel (Col) or ELR layer (ELR-Col and ELR-Col70%ELR30%), whereas "exterior" corresponds to the external region in contact with the culture medium. (n=3, ns stands for $p > 0.05$, * for $p \leq 0.05$ and ** for $p < 0.001$).

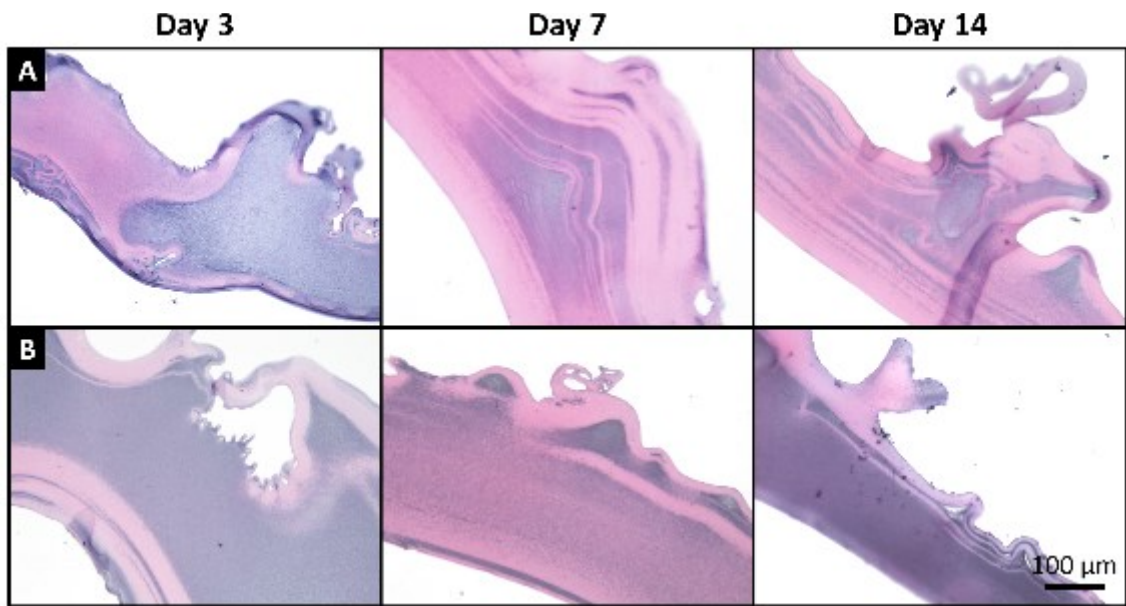


Figure E52. ELR layer upon maturation *in vitro* with time. Representative images of the stained ELR matrix of the ELR-Col (A) and ELR-Col70%ELR30% (B) models with hematoxylin and eosin at the studied time points (days 3, 7 and 14). The left side of the section corresponds to the internal surface of the ELR layer in contact with the mandrel, whereas the right side corresponds to the external surface in contact with the cellularized collagen layer.