

Ηράκλειο 9 Ιουνίου 2022

ΠΑΡΟΥΣΙΑΣΗ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Της φοιτήτριας Κωνσταντίνας Λυρώνη, θα γίνει τη

Παρασκευή 24/06/2022 και ώρα **16:00**

στην αίθουσα Α2 του Κτιρίου Επιστήμης Υπολογιστών

Θέμα Διπλωματικής:

«Morphology and viscoelasticity of fibrillar collagen-based formulations for regenerative medical applications»

Abstract:

Collagen I, the most abundant structural protein in humans, is utilized extensively in biomaterial applications. Most published works in the literature focus on collagen I hydrogels, yet there is limited information on porous scaffolds made of lyophilized suspensions of fibrillar collagen I, despite their established utilization in regenerative medicine. Our main goal is to deepen our understanding of the self-assembly of collagen molecules and its role on the viscoelasticity of formulations used in regenerative medicine applications. For this purpose, we use phase contrast microscopy and cryo-TEM to observe and analyze the multi-scale structure of fibrillar collagen I in acetic acid solutions. Rheological measurements probe the viscoelastic and flow properties at different temperatures. Our findings indicate a correlation between the rheological response of the suspensions, their entangled structure, and the swelling of the fibers.

ΑΠΟ ΤΗ ΓΡΑΜΜΑΤΕΙΑ