



Istituto Nazionale di Fisica Nucleare LABORATORI NAZIONALI DI LEGNARO



Laboratori Nazionali di Legnaro - INFN

WP4 - Tissue-mimicking scaffolds for radiobiology

A. Leso

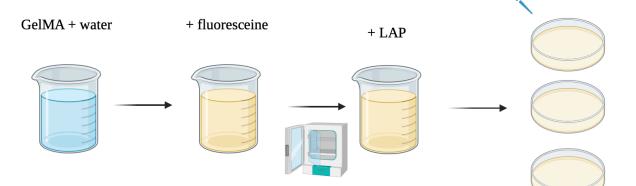
May 24th, 2024







A solution made of GelMA (20%), fluorescein and LAP was prepared and deposited in *petri* dishes.

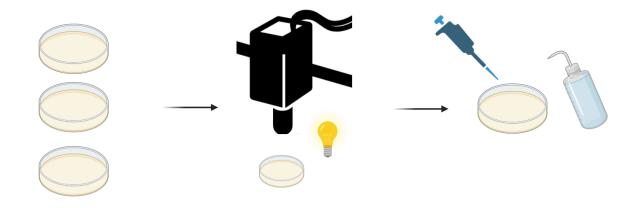




2.5D printing



The GelMA solution went through solidification by DLP technique, and the not solidified excess was washed and removed from the *petri* dish.



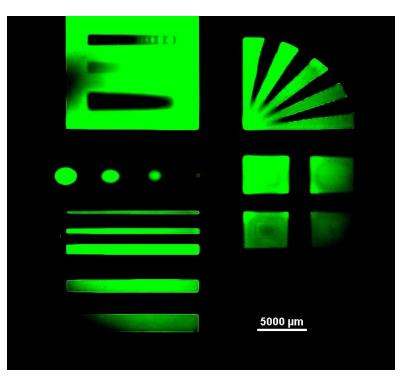


Confocal microscopy visualization



Petri dishes were analyzed under a confocal microscope.

As one can see, the shapes are resoluted and a gradient can be observed.



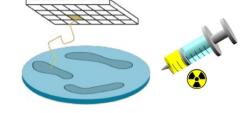


A look to the future



1. Supports for Beta-detector resolution tests

2. Production of scaffolds for 3D *in vitro* tests with ¹¹¹Ag







Points to analyze



- 1. Use a glass support to improve wettability;
- 2. Analyze the time exposition to find the better solution;
- 3. Evaluate the possibility of printing the background and then fill the gaps with the phase of interest (cells, silver...)







Thank you for your kind attention