

Advanced Materials & Related Technology

CAMTEC SEMINAR

TITLE:	Regemat 3D: From Emerging Bioprinting Technologies to Real Success Cases
SPEAKERS:	Daniel Cermeno & Noelia Campillo, Regemat
DATE:	Tuesday, September 28, 2021
TIME:	11:00 am – 12:00 pm
LOCATION:	via zoom (see below)

Abstract:

At present, the health sector is immersed in a process of transformation towards new medical approaches that allow addressing important social and health problems.

Dealing with the consequences of an incessant aging population, the highly unbalanced availability of organs for transplantation with respect to their demand, the search for treatments with the capacity to restore health in the organism beyond the predominant current symptomatic relief, as well as the high costs invested in the R&D phases of these therapies with their low return rates, make disruptive technologies the perfect ally towards the progress of human health. Among them, tissue engineering acts as an emerging multidisciplinary field, with the ability to manufacture biological constructs making possible to restore, maintain and even improve the functions of damaged and diseased tissues. However, conventionally used methodologies involve the cultivation of cells in 2 dimensions resulting in genetic alterations, changes in the metabolic expression and ultimately, the loss of their functionality.

Cells need to grow in a three-dimensional environment where they receive the stimuli that allow them to maintain their native functionality. Bioprinting allows the manufacture of complex human structures in 3D, with the ability to restore the function of tissues and organs, while being adapted to the needs of each patient.

REGEMAT 3D makes a custom-designed technology available to science and research, created to integrate the advantages of additive manufacturing with tissue engineering applied to regenerative medicine. The company provides technologies inspired by human biology itself and has an on-demand production strategy. As a result, Regemat 3D offers to the scientific community a complete portfolio of advanced biofabrication tools, including materials, bioprinting systems and bioreactors, which can be adapted to the scientific applications of each research team, and in last instance, to the specific needs of each patient. The personalized configuration of each bioprinter, together with technical support both at the biological and engineering levels, make possible day by day to obtain results that facilitate the path of each investigation, towards its translation and benefit for humanity.

Strategically, Regemat 3D is considered one of the top 15 3D bioprinting companies worldwide, thanks to the high flexibility and adaptation of its products to customers, its production capacity in short periods of time as well as a strong promotion with great activity. All these elements together with the incorporation of highly qualified personnel, the generation of an extensive network of contacts, as well as the entry into alliances and collaboration agreements with laboratories and companies in the sector, have been key factors for the successful integration and presence of the company in its corresponding market niche. Currently, their systems have been validated from researchers in more than 30 countries working in a wide variety of research lines, including skin bioprinting, bone regeneration, and 3D models of cancer.

Please contact Peggy White for further information (<u>camtec@uvic.ca</u>).

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