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3D skin bioprinting: unde venis et quo vadis?



Wednesday, 31st January
12.00 p.m.

CIC biomaGUNE - Seminar Room

Historically, the most important activity of our research group was the knowledge of the skin, from its basic molecular and cellular mechanisms to the development and translation of innovative therapies for the treatment of its diseases, with special interest in wound healing and genodermatoses, due to their clinical, economic and social relevance. In this process we participated in the development of a technology, which allowed us to manually produce large extensions (1-2 m²) of human skin from small biopsies, initially designed for the treatment of extensive and deep burns. This technology contained the basis of bioinks that allowed us to be a pioneer and reference group in 3D bioprinting of functional human skin. One of our relevant differences with respect to other competing groups, formed mainly by engineers, was that our vision and experience came from the biomedical world. In this seminar I intend to describe our path from the manual production to the 3D bioprinting of human skin and to give my views on possible applications, developments and future challenges of this technology.