

MOOC Tissue & Organ Bioengineering

A FREE ONLINE COURSE FROM
UNIVERSITÉ PARIS-SUD

In collaboration with Hépatinov and Cellspace

Tissue and organ bioengineering is a new fascinating multidisciplinary work gathering biologists, engineers, physicists, chemists and mathematicians with tremendous impact for medicine and drug development. Innovative scaffolds directing cell behavior facilitate the generation of organoids and tissues more and more complex, leading the way to fully equipped organs for transplantation. Besides, advances in microfluidics and other biofabrication technologies have boosted the construction of organ-on-chips with wide applications in predictive toxicology, drug metabolism and micro physiology, but also external bio artificial organs.

This MOOC is designed for students, scientists or everybody interested in learning about the recent advances and techniques in bioengineering of organs or tissues. This course will cover the biomaterials, cells and scaffolds used for tissue engineering; modeling studies, techniques of bio-fabrication from micro-patterning and bio-printing to the technologies of chips and organoids. Specific applications of bioengineering for skin, trachea, esophagus, bones and liver will be addressed as well as external bio-artificial organs and finally the regulatory aspects and perspectives in terms of industrial developments.

Teachers are physicians, academic scientists and entrepreneurs involved in bio-fabrication

A bachelor of science is recommended.



Starts on May, 14th



FREE



English with English subtitles



Estimated effort: 5h per week



Forum to exchange opinions, etc

5
WEEKS

27
VIDEOS

22
SPEAKERS

135
QCM TESTS

FOLLOWS US

<https://www.fun-mooc.fr/courses/course-v1:pasteur+96007+session01/about>



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construire l'avenir



CellSpace
Tissue and Organ Bio-engineering

