



**WORKSHOP**

**"3D BIOPRINTING  
IN CANCER RESEARCH"**

Organized by Cancéropôle Grand Ouest

**5  
JULY  
2017**

**IRS-UN  
NANTES  
FRANCE**



UNIVERSITÉ DE NANTES

*12<sup>th</sup> annual workshop of Tumour Targeting & Radiotherapies network*

# 3D BIOPRINTING IN CANCER RESEARCH

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The Cancéropôle Grand Ouest co-organizes with CRCINA, Phy-Os and MicroPICell platform, “3D BIOPRINTING IN CANCER RESEARCH” workshop that, aims to present this new technology, which is attracting a high interest in cancer research as it allows:

- biofabrication of living tissue as well as organs using cells and hydrogels in petri dishes,
- biofabrication of 3D tumor models with biomimetic cell/cell and cell/extracellular matrix interactions.

Mimicking the microenvironment of tumors using 3D Bioprinting will help in the development of new therapies against cancers being an intermediate technology platform between traditional 2D monocellular cultures and animal models.

Focus will be made on the following items:

- Bioprinting tissues and organs
- Bioprinting tumors
- Micropatterning and Visualization

## Scientific committee

- CRCINA, INSERM, University of Nantes

Sophie Barillé  
Michel Chérel  
Lisa Oliver

- SFR, MicroPICell, University of Nantes

Steven Nedellec

- Phy-Os, INSERM, University of Nantes

Pierre Layrolle  
Valérie Trichet  
Luciano Vidal

## Organizing committee

- Cancéropôle Grand Ouest

Jessica Auffray  
Julie Danet  
Françoise Léost

- Phy-Os, INSERM, University of Nantes

Sandrine Maurice

# Program

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**8:15: Registration/ Welcome coffee**

**9:00 Introduction**

**9:15 – 10:00 “Engineering Biomimetic Organ- and Cancer-on-Chip Models”**  
**Yu Shrike Zhang**, Brigham and Women's Hospital, Harvard Medical School, Wyss Institute for Biologically Inspired Engineering, Harvard University, Boston, **USA**

**10:00 – 10:45 “3D tumor models”** *Selected communications (15 minutes)*

**“3D Bioprinted models of Glioblastoma”**

**Nick R Leslie**, Institute of Biological Chemistry, Heriot-Watt University, Edinburgh, **United Kingdom**

**“Use of 3D spheroid cultures to screen for drugs targeting cancer stem cells”**

**Ines Prieto**, StemTek Therapeutics, Derio, Biscay, **Spain**

**“Deconstruction - Reconstruction of the tumor: Glioblastoma Multiforme”**

**Fanny Geraldo**, CRCINA - INSERM UMR1232, University of Nantes, **France**

**10:45 – 11:05** *Sponsor communications:*

**“3D Bioprinting of Soft Tissues”** **Cellink**

**“PRIMO: quantitative photopatterning of proteins for cell micropatterning”** **Alvéole**

**11:05 – 11:30 Coffee break**

**11:30 – 12:15 “Bioink development for the generation of 3D tissue constructs”**  
**Jos Malda**, Department of Orthopaedics, University Medical Center Utrecht, Utrecht, **The Netherlands**.

**12:15 – 12:25** *Sponsor communication:*

**“Shaping the future of healthcare”** **regenHU**

**12:30 – 13:45**    **Lunch**

**13:45 – 14:15**    **“3d.FAB platform: 3D printing for life science”**  
**Christophe Marquette**, CNRS, INSA, CPE-Lyon, ICBMS, UMR 5246,  
University of Lyon 1, **France**

**14:15 – 15:30**    **“3D Printing & therapeutic applications”** *Selected communications*  
*(15 minutes)*

**“Modeling of 4D-bioprinting process for improved final resolution of a tissue”**

**Jean-Yves Hascoët**, Institut de Recherche en Génie Civil et Mécanique (GeM) UMR CNRS 6183, Centrale Nantes, **France**

**“Self-setting hydrogel for 3D bioprinting”**

**Pauline M. Chichiricco**, INSERM, UMRS 1229, RMeS “Regenerative Medicine and Skeleton”, Faculty of Odontology, University of Nantes, **France**

**“3D Printing of biomaterial scaffolds from CT scans for bone regeneration after tumor resection”**

**Luciano Vidal**, Inserm UMR 1238, PHY-OS, Faculty of Medicine, University of Nantes, **France**

**“Design of silk-fibroin implants in glioblastoma for control of destiny of cancer cells, their trapping and removal”**

**Mathie Najberg**, CRCINA, INSERM, University of Nantes, University of Angers, **France**

**“Therapeutic drug vectorization strategy in chondrosarcoma”**

**Sarah Renault**, Inserm UMR 1238, PHY-OS, Faculty of Medicine, University of Nantes, **France**

**15:40 – 17:30**    **Posters session, Stands & Hands-on workshop**

**17:30 -18:30: Cocktail**



[www.3d-bioprinting-cancer-workshop.fr](http://www.3d-bioprinting-cancer-workshop.fr)

[www.canceropole-grandouest.com](http://www.canceropole-grandouest.com)



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