

3 Questions to....

... Ayman Chmayssem
from CEA-Leti



What has been most surprising and challenging for you related to your involvement in PANBioRA so far?

Most **surprising** issues related to our involvement in the project was the multidisciplinary of the project activities. From a scientific point of view, PANBioRA covers many scientific fields and being in interaction with this scientific community is a benefit for me, as a researcher and for our institution.

Most **challenging** was the essential work because of the deep interaction between the partners. Defining the work perimeter and the task distribution or to eliminate misunderstanding.

How would you describe PANBioRA in one sentence?

Very ambitious project associated to many challenging tasks serving the development of emerging sciences.

From your point of view: What will be the biggest impact of PANBioRA?

The PANBioRA project development in terms of cytotoxicity, genotoxicity and organ-on-chip modules associated to the monitoring modules of cells/tissues in real-time using the mini-microscope, the electrochemical sensors (for selected metabolites) and the cytokine sensors will be one of the biggest achievements within the PANBioRA project. These achievements will be used to give a personalised response during the test of biomaterials which can be seen as the biggest impact of PANBioRA.

Learn more about CEA-Leti and their involvement in PANBioRA!





Laboratoire d'électronique et de technologie de l'information

[CEA-Leti](#) is a research institute of CEA Tech and a recognized global leader in miniaturization technologies. Leti's teams are focused on developing solutions that will enable future information and communication technologies, health and wellness approaches, clean and safe energy production and recovery, sustainable transport, space exploration and cybersecurity. For 50 years, the institute has built long-term relationships with its industrial partners, tailoring innovative and differentiating solutions to their needs. Its entrepreneurship programs have sparked the creation of 64 start-ups. Leti and its industrial partners work together through bilateral projects, joint laboratories and collaborative research programs. Leti maintains an excellent scientific level by working with the best research teams worldwide, establishing partnerships with major research technology organizations and academic institutions. Leti is also a member of the Carnot Institutes network.

Role in PANBioRA:

CEA-Leti will primarily design multiparametric electrochemical platforms dedicated to in situ real time monitoring of microfluidic 3D cell cultures. CEA-Leti will be in charge of the multiparametric (bio) sensing platforms (taking in account also on the biocompatibility of the sensing interface) and beyond will be involved in their integration within microfluidic cell culture system and in application to cell cultures.

