

Experiment Proposal

Experiment number GP2022015

Principal investigator	Professor Marco Vanoni, University of Milano-Bicocca, ITALY	
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Experiment title	Metabolic characterization of cancer bladder organoids versus 2d cell culture	
SRF Instrument	Metabolomics	Days requested: 10
Access Route	Rapid Access	Previous GP Number: -
Science Areas	Biology and Bio-materials	DOI: -
Sponsored Grant	None	Sponsor: -
Grant Title	-	Grant Number: -
Start Date	-	Finish Date: -
Similar Submission?	-	
Industrial Links	-	
Non-Technical Abstract	Metabolic profiling of cells in 2D culture systems often fails to reflect the metabolism occurring within tissues in vivo due to lack of other cell types and 3D interaction. 3D in vitro culture allows complex spatial interactions between cells in a 3D environment. This more closely recapitulates in vivo cell-cell contacts and original physiological conditions. This in turn provides a more relevant microenvironment, influencing cellular processes and therapeutic response. Developing a methodology to compare 2D cultures with cancer cell spheroids, including multiplatform metabolomics approach, we will perform metabolic profile with aim to identify metabolic heterogeneity, necessary to understand the effects of metabolic co-operation and how this interaction can be targeted for treatment.	
Publications	-	

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Sample record sheet

Principal contact Dr Daniela Gaglio, CNR, ITALY

SRF Instrument **Metabolomics**

Days Requested: 10

Special requirements:

SAMPLE

Material	cell culture	-	-
Formula	-	-	-
Forms	Solid		
Volume	cc		
Weight	300 mg		
Container or substrate	-	-	-
Storage Requirements	liquid nitrogen and dry ice	-	-

SAMPLE ENVIROMENT

Temperature Range	- K	-	-
Pressure Range	- mbar	-	-
Magnetic field range	- T	-	-
Standard equipment	-	-	-
Special equipment	-	-	-

SAFETY

Prep lab needed	Yes	-	-
Sample Prep Hazards	-	-	-
Special equip. reqs	-	-	-
Sensitivity to air	No	-	-
Sensitivity to vapour	No	-	-
Experiment Hazards	-	-	-
Equipment Hazards	-	-	-
Biological hazards	-	-	-
Radioactive Hazards	-	-	-
Additional Hazards	-	-	-
Additional Details	-	-	-
Sample will be	Disposed by IS	-	-

