

Cold Atmospheric Plasma on mouse intestinal epithelial organoids

Commonly used acronym: CAP on mouse intestinal organoids

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Contact person

Marie-Isabelle Garcia

Organisation

Name of the organisation Université Libre de Bruxelles (ULB)

Department IRIBHM

Country Belgium

SCOPE OF THE METHOD

The Method relates to	Animal health
The Method is situated in	Basic Research
Type of method	In vitro - Ex vivo
Species from which cells/tissues/organs are derived	mouse
Type of cells/tissues/organs	Intestinal stem cells

DESCRIPTION

Method keywords

Cold atmospheric plasma
gut organoids
cytotoxicity
apoptosis
reactive oxygen species
transcriptomics
epithelium

Scientific area keywords

Gastro-enterology

Method description

Using the *ex vivo* culture system, we investigated the impact of an endoscopic helium plasma jet application on mouse ISCs at the morphological, cellular and transcriptomic levels. Moreover, we explored the potential selectivity of CAP application on tumor versus normal organoids originating from the same genetic background.

Method status

Published in peer reviewed journal

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

References

Cell Death Discovery (2022) 8:66 ; <https://doi.org/10.1038/s41420-022-00835-7>

Associated documents

[Cold Atmospheric plasma on organoids Hadeffi et al 2022.pdf](#)

Other remarks

Collaborators for the published method:

- Department of Gastroenterology, Hepatopancreatology and Digestive Oncology, Laboratory of Experimental Gastroenterology, C.U.B. Hôpital Erasme, Brussels, Belgium.
- Bio-, Electro- and Mechanical- System (BEAMS), Biomed Group, Ecole polytechnique de Bruxelles, Brussels, Belgium.
- Chemistry of Surfaces, Interfaces, and Nanomaterials, ChemSIN cp 255, Faculty of Sciences, Université libre de Bruxelles, Brussels, Belgium.

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