gutflix
GI learning, personalised

Summary

INVESTIGATING THE ROLE OF GUT EUKARYOTIC VIROME IN CONTRIBUTING TO COLORECTAL CANCER CARCINOGENESIS

Salvatore Spanò

UEG Week Copenhagen 2023 | Poster

IBD

October 15, 2023

A study investigates the role of Hepatitis B protein X (HBx), a gut virome-associated protein, in colorectal cancer development through in vitro and in vivo experiments in mice and analysis of patient-derived samples.

KEY POINTS

- Metatranscriptomic analysis revealed that HBx is significantly more abundant in CRC-derived mucosal samples compared with healthy individuals.
- HBx overexpression in Caco-2 cells directly provoked DNA damage, shown by a significant increase in γH2AX+ cells, a marker of double-strand DNA breaks and genomic instability.
- C57BL/6 mice receiving HBx-encoding plasmids for 40 to 60 days developed polypoid structures in the colonic mucosa characterized by decreased abundance of T cells, including effector T cells and NK T cells.
- In vivo HBx modulated the expression of genes involved in transcription regulation and activation of the proto-oncogene PIM3.
- The authors propose that this work supports viewing the gut virome as an active component in CRC pathogenesis rather than a bystander entity.

VIEW THIS CONTENT ON GUTFLIX

https://gutflix.eu/search/d/3cb9d8c8-743b-11ee-9c7e-0242ac140004

AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.