Neural Influence on Colorectal Carcinogenesis

Propositions belonging to the Thesis

Neural Influence on Colorectal Carcinogenesis

Unraveling Neural Signatures and Tumor-Neural Crosstalk

1. ***In vitro*** **models of colorectal cancer that incorporate an enteric nervous system are better models to simulate this disease in a dish.** [this thesis]
2. **DNA hypermethylation neural signature in colorectal cancer correlates with neural stemness of cancer cells.** [this thesis]
3. **The tumor microenvironment of colorectal cancer includes contributions from both enteric neurons and enteric glia.** [this thesis]
4. **Reduced intestinal innervation in colon cancer leads to decreased numbers of germinal center B cells**. [this thesis]
5. **Single-cell RNA sequencing reveals distinct subtypes of enteric glial cells in human adults with more antigen-presenting glia in colorectal cancers.** [this thesis]
6. **Deciphering molecular signaling pathways involved in neural-influenced immune modulation could provide new therapeutic targets for colorectal cancer**.
7. **Artificial intelligence will revolutionize omics analysis by uncovering patterns shared across different biological layers, such as genetics, epigenetics, and proteomics, that are beyond human perception.**
8. **In biomedical research, failure isn't the opposite of success; it's a crucial step in the path to discovery.**
9. **In a complex global environment, researchers are tasked with the dual responsibility of addressing health concerns and advocating for diversity, academic freedom, and human rights.**

Musa Idris, 10 Dec 2024