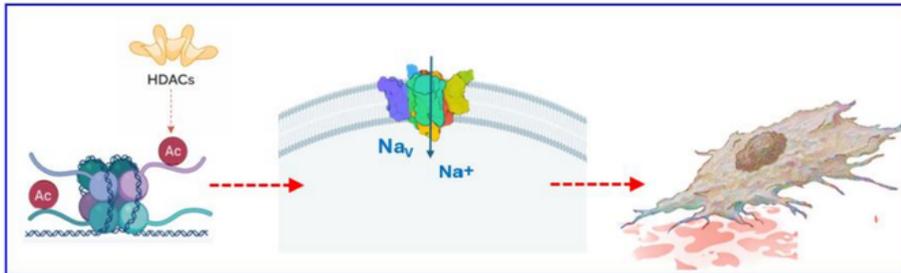


Seminario Departamental

“Voltage-gated sodium channels as drivers of tumour invasion:
Mechanisms and therapeutic opportunities”



Osbaldo López Charcas



16 de abril de 2026, 12:00 hrs.

Auditorio del Departamento de Fisiología

Cancer progression involves the reactivation of molecular programs normally restricted to excitable tissues. My research investigates how voltage-gated sodium channels (particularly Nav1.5) become aberrantly expressed in carcinomas and drive invasion, extracellular acidification, and metastatic behaviour. Using electrophysiology, molecular biology, and functional cancer models, we have shown that Nav1.5 enhances tumour aggressiveness and can be pharmacologically targeted. I will also present recent work exploring how epigenetic regulators, including histone deacetylases, control Nav channel expression in colorectal cancer. This integrative approach aims to identify novel biomarkers and therapeutic strategies linking bioelectricity and tumour biology.