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CIC bioGUNE

Host: Niels Reichardt

Understanding and predicting prostate cancer aggressiveness through the deconstruction of cell signaling and metabolism



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Wednesday, 15 May
12.00 p.m.

CIC biomaGUNE - Seminar Room

The products of metabolic pathways serve unexpected purposes in the process of cancer cell growth and dissemination. Despite the better understanding of the signaling and metabolic events that contribute to cancer, the field has not yet clarified how these events are coordinately elicited, and, importantly, what differential signaling and metabolic cues drive cancer initiation and metastasis.

In order to decipher metabolic drivers of cancer, we envisioned a study that integrates bioinformatics screening, genetic mouse modeling and integrative metabolomics. We based our studies on the interplay between the signaling and metabolism in prostate cancer. We will provide an integrated perspective of the means and regulation of the signaling-metabolic switch in this disease emerging upon cell-intrinsic and cell-extrinsic perturbations. Specifically, we will elaborate on the distinct use of fuel for growth and the identification of signaling and metabolic pathways that serve to sustain biological processes related to disease progression. We will present the advantages of public transcriptomics dataset analysis through pre-existing and dedicated web interfaces to unveil gene expression changes that exhibit prognostic potential.