Mini Project

Impact of hypoxia on tumor microenvironment

Mini Project description

- The current NB state of knowledge has well characterized clinical variables

- NB clinical variables are for example the **INSS stage**, **MYCN Amplification status**, the **high risk status**

- Other important variables include **death of disease**, **relapse** and **age at diagnosis**

- In the dataframe, phenotype score examples are MYCN gene expression, HIF1A gene expression, Hallmark Hypoxia, Hallmark Inflammatory Response

Mini Project Objectives

- Correlate neuroblastoma clinical variables (INSS stage, MYCN Amplification status) with phenotype scoring

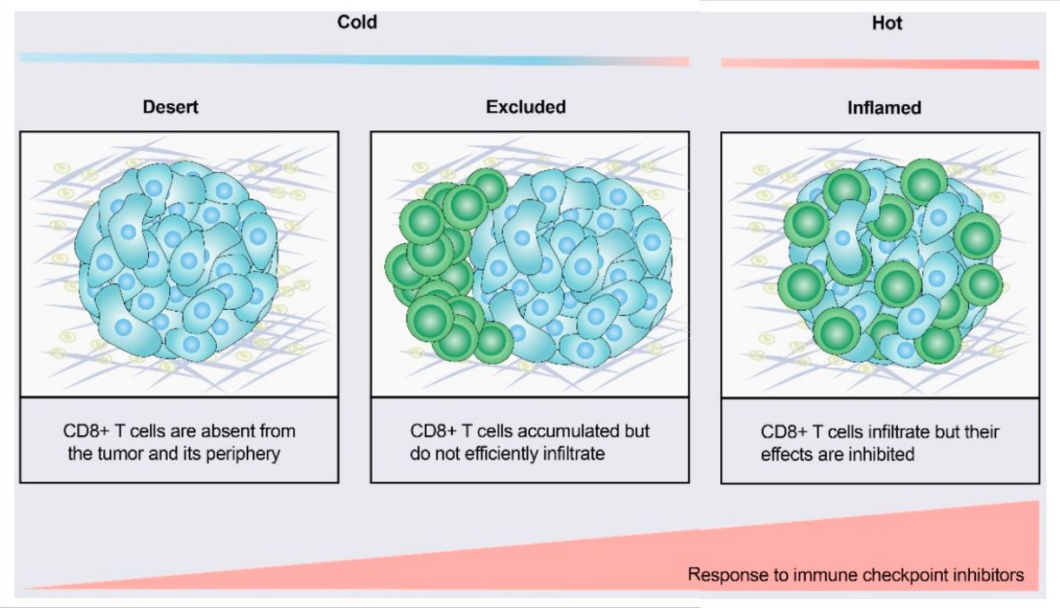
- Correlate NB clinical variables with hypoxia phenotypes

    - **Note:** Hypoxia Up-regulation and Hypoxia Down-regulation are proprietary data of the Applebaum lab at UChicago

Mini Project **Hypothesis**

- Hypoxia influences the inflammatory and T-cell infiltration axis in the tumor microenvironment

Tumor inflammation



Liu and Sun *et al.*, (2021)