Keynote Lecture

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"Understanding oncogenesis across biological scales"

Abstract:

Tumors are complex ecosystems of different cell types, ranging from healthy cells from the original tissue to cancer cells that acquired malignant properties throughout somatic evolution. The final behavior of a tumor depends on the interplay between all these different cell types which, in turn, have different properties depending on both, the unique germline genome of each person as well as the distinctive set of somatic mutations acquired by cancer cells. In this talk I will present the recent work of our group, including analysis of proteogenomic data and spatial transcriptomic profiles, to understand how all these different phenomena interact with each other across omics layers and biological scales to determine the final properties of human tumors.