



Associate Professor **Xavier Roca**

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A/P Xavier Roca investigates the basic mechanisms of splicing and their disease implications. In his PhD at the Autonomous University of Barcelona, he described the alternative splicing of *CD44* in breast cancer. As a postdoctoral fellow in Prof Adrian Krainer lab at Cold Spring Harbor Laboratory (NY), he mainly characterized the recognition of splicing signals whose mutational disruption causes human genetic disease. Since 2011, his own group at the School of Biological Sciences, Nanyang Technological University Singapore uses both wet and dry lab to study the splicing mechanisms in human myeloid cells and cancer, in antiviral genes, and they also characterize the splicing effects of genetic variants in rare disease patients. His lab recently discovered that splicing regulatory proteins lacking canonical RNA binding domains exhibit specificity for GC-rich substrates with a role of phase separation. His long-term goal is to crack the splicing code to improve disease diagnosis and therapeutics.