Project #10

Identification of novel prognostic and therapeutic targets for breast cancer

Description

Cancer is the second leading cause of morbidity worldwide, among which breast cancer (BC) is the most diagnosed and leading cause of cancer-related deaths among women. Despite the many advances in cancer management and therapeutic, patient relapse and resistance to therapy remain major clinical challenges, underscoring the need for a better understanding of the disease and the identification of novel prognostic biomarkers and therapeutic targets.
Our recent transcriptome analysis of BC from Qatar identified numerous differentially expressed protein-coding (mRNAs) and noncoding RNAs (lncRNAs and miRNAs) in BC. This project aims at the identification of novel prognostic biomarkers and therapeutic targets for BC. Students will be exposed to research environments, numerous techniques, and platforms, including bioinformatics and computational analysis of next-generation sequencing (NGS) data, functional studies including cell culture, cell viability, molecular biology techniques such as RNA isolation and real-time PCR, and many others.

Mentor

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