Organoids in the translational research of prostate and bladder cancers

The cancer stem cell hypothesis proposes that a rare subpopulation of cells within a tumor possesses the key features of stem cells, namely self-renewal and multi-potency, and that these stem-like cancer cells arise from oncogenic transformation of normal stem cells or closely related multi-potent progenitors.

Organoids and patient-derived xenografts of cancer represent excellent models to explore the biological and molecular implications of the cancer stem cell hypothesis in the progression of prostate and bladder cancer, and to identify key features of putative stem/progenitor-like cancer cells that are likely to be at its origin. The use of organoids, PDX, ex vivo cultures and lab-on-a-chip in mechanistic studies and in testing of therapeutic approaches will be presented.

Note:
Prére d’aviser vos étudiants gradués et stagiaires postdoctoraux afin d’avoir la participation de tous.