Message from the Guest Editor

Dear Colleagues,

Though aerobic glycolysis is an established phenomenon in cancer cells, recent developments in cancer metabolism suggest that most tumor mitochondria are not completely dysfunctional, but reprogram to have their ability to carry out oxidative phosphorylation (OXPHOS). Recently, increasing experimental evidence shows a critical role of OXPHOS in tumorigenesis and metastasis.

Extensive crosstalk between the mitochondria and the nucleus known as mitochondrial retrograde regulation (MRR), also influences many tumor and cellular activities. Importantly, several proto-oncogenes and tumor suppressors are actively involved in the regulation of metabolism. Recently, metabolically targeting of cancer cells is gaining increasing attention in oncology. Considering the heterogeneity of tumors, characterizing mitochondrial reprogramming and MRR in cancer subtypes is critical in understanding the mechanism of tumour initiation, progression and therapeutic resistance. It can also support the development of newer agents to metabolically target cancer subtypes and the repurposing of existing metabolic drugs for cancer therapy.

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Guest Editor