Cancer is one of the biggest diseases worldwide, a huge threat to human health. The endeavors to cure cancer have been developed from cytotoxic chemotherapy, targeted chemotherapy, to immunotherapy. However, cytotoxic chemotherapy has severe side effects that kill healthy normal cells, and targeted chemotherapy, which inhibits specific cancer proteins, has drug resistance problems, and immunotherapy is only applicable to limited patients. Therefore, it is highly demanded to develop new paradigms of cancer therapy. Our research team has investigated new cancer therapy using supramolecular approaches. In this talk, I would like to discuss intra-mitochondrial assembly and supramolecularly protein-modified nanomedicine for targeted cancer therapy. In the first part, I will talk about the supramolecular polymerization of dipeptide inside the mitochondria. In the second part, I will talk about cancer-targeted nanomedicine to prevent the clearance of the particles by macrophages, while ensuring their targeting function in vitro and in vivo. These findings can provide new insights into intra-mitochondrial assembly for the therapeutic approach and new targeting platforms for the biomedical community since numerous functional proteins can be installed in the same manner.

Date: 27th June 2019 (Thursday)
Time: 11.00 am to 12.30 pm
Venue: SPMS Research & Graduate Studies Office Conference Room
Host: Associate Professor Xing Bengang