Early phase oncology trials at CUHK

Since the opening of the Chinese University of Hong Kong Phase 1 Clinical Trial Centre (CUHK P1CTC) in June 2013, the Department of Clinical Oncology has worked closely with the Faculty's Clinical Research Management Office in the development of the P1CTC. A key milestone was the successful accreditation of the CUHK P1CTC by the China Food and Administration (FDA) in August 2016. The Department is cooperating with the Department of Anatomical and Cellular Pathology to establish a Patient Derived Xenograft (PDX) model laboratory at the Sir Yat Pao Cancer Centre. Once established, the CUHK P1CTC laboratory plans to work with pharmaceutical companies in the development of novel oral and novel cancer compounds that are FDA modelled on nasopharyngeal cancer. The long-term goal is to develop a seamless platform at CUHK for generating proof-of-concept studies and phase 1 clinical testing in Asian-prevalent cancers.

The Department of Clinical Oncology continues to expand its phase I programme and is currently conducting a wide spectrum of phase I clinical trials, ranging from signalling inhibitors and cell cycle inhibitors to immune checkpoint inhibitors in solid tumours. Our strong presence in the academic arena is reflected in the number of abstract presentations, journal articles and consultancies at the大战会 of Medical Oncology Asia (ESMO, Singapore, December 2016), as well as the annual meeting of Cancer Research (AACR, Washington DC 2017) and the European Society for Medical Oncology (ESMO, Vienna). We have also made a significant contribution to the number of abstract presentations, journal articles and consultancies at the American Association for Cancer Research (AACR) annual meeting and have participated in the annual meeting of the American Society for Radiation Oncology (ASTRO) annual meeting. Our strong presence in the academic arena is also reflected in our international collaborations with pharmaceutical companies in the evaluation of novel anti-cancer compounds and signalling inhibitors and cell cycle inhibitors to immune checkpoint inhibitors. Our group has established the CUHK P1CTC as a platform for generating proof-of-concept studies and phase 1 clinical testing in Asian-prevalent cancers.

Qian Tao's group is focused on cancer epigenetics, mainly the CpG methylation study of tumours, including the identification and functional characterisation of novel tumour suppressor genes (TSGs), the development of epigenetic biomarkers and therapeutic targets, and the development of epigenetic programming in virus-associated tumorigenesis. His group has established the CuHK P1CTC as a centre for the development of novel and novel cancer compounds in solid tumours. Our strong presence in the academic arena is reflected in the number of abstract presentations, journal articles and consultancies at the annual meeting of Cancer Research (AACR, Washington DC 2017), as well as the annual meeting of Cancer Research (AACR, Washington DC 2017) and the European Society for Medical Oncology (ESMO, Vienna). We have also made a significant contribution to the number of abstract presentations, journal articles and consultancies at the American Association for Cancer Research (AACR) annual meeting and have participated in the annual meeting of the American Society for Radiation Oncology (ASTRO) annual meeting. Our strong presence in the academic arena is also reflected in our international collaborations with pharmaceutical companies in the evaluation of novel anti-cancer compounds and signalling inhibitors and cell cycle inhibitors to immune checkpoint inhibitors. Our group has established the CUHK P1CTC as a platform for generating proof-of-concept studies and phase 1 clinical testing in Asian-prevalent cancers.

Cancer is a genomic disease, thus we must tackle cancer at the molecular level. The Department of Clinical Oncology leads and collaborates with multiple international researchers in the development of biomarker and novel therapeutics that target specific cancer genes. Through our work, we have changed the paradigm of cancer therapy.
**Lung Cancer**

With the discovery of the EGFR mutation in 2004, precision medicine has become the standard of care for patients with non-small cell lung cancer. Tony Mok and his team have led the world in demonstrating the clinical utility of the EGFR tyrosine kinase inhibitor (TKI) in clinical trials, leading to the development of targeted therapy for lung cancer. The first study to confirm the superiority of second generation TKIs over first generation TKIs was the INTERIM trial, which showed that the addition of afatinib to chemotherapy was superior to chemotherapy alone in patients with EGFR mutant lung cancer. In the IMPRESS trial, which was the first to confirm the superiority of TKIs over chemotherapy, patients treated with gefitinib had a significantly longer progression-free survival than those treated with chemotherapy. The study has changed the management paradigm and demonstrated the predictive value of the EGFR mutation.

**Oropharyngeal Carcinoma**

In head and neck squamous cell carcinoma (HNSCC), the treatment of choice is surgery and post-operative radiation therapy. However, for patients with high-risk factors, such as extracapsular extension, positive lymph nodes, or multicentric disease, additional systemic therapy is necessary. Tony Mok and his team have led the way in developing targeted therapy for HNSCC. The first study to confirm the superiority of TKIs over chemotherapy was the FASTACT-2 trial, which showed that the addition of afatinib to chemotherapy was superior to chemotherapy alone in patients with EGFR mutant HNSCC. The study has established a new standard of care for HNSCC with TKIs.

**Liver Cancer**

Liver cancer is a prevalent and highly lethal cancer in Asia. Our team focuses on developing novel management strategies for liver cancer. As liver cancer is currently understudied, there are many unmet needs in liver cancer research. Our team has been working on developing targeted therapy for liver cancer, with a focus on understanding the biology of liver cancer and developing new therapeutic strategies. We have been involved in multiple international collaborations and have published several papers on liver cancer. Our team is currently working on developing a novel targeted therapy for liver cancer and has presented multiple posters on this topic at international conferences.

**Bile Duct Cancer**

Bile duct cancer is a rare and aggressive cancer with high mortality rates. Our team is interested in developing novel management strategies for bile duct cancer, with a focus on understanding the biology of bile duct cancer and developing new therapeutic strategies. We have been involved in multiple international collaborations and have published several papers on bile duct cancer. Our team is currently working on developing a novel targeted therapy for bile duct cancer and has presented multiple posters on this topic at international conferences.

**Gastrointestinal Stomach**

Gastrointestinal stromal tumours (GISTs) are rare neoplasms of the gastrointestinal tract. Our team is interested in developing novel management strategies for GISTs, with a focus on understanding the biology of GISTs and developing new therapeutic strategies. We have been involved in multiple international collaborations and have published several papers on GISTs. Our team is currently working on developing a novel targeted therapy for GISTs and has presented multiple posters on this topic at international conferences.

**Sarcoma**

Sarcomas are a diverse group of tumours that arise from mesenchymal tissues. Our team is interested in developing novel management strategies for sarcomas, with a focus on understanding the biology of sarcomas and developing new therapeutic strategies. We have been involved in multiple international collaborations and have published several papers on sarcomas. Our team is currently working on developing a novel targeted therapy for sarcomas and has presented multiple posters on this topic at international conferences.

**Immunology-Hong Kong**

The team at the Chinese University of Hong Kong focuses on the development of novel therapeutic strategies for cancer. We have been involved in multiple international collaborations and have published several papers on cancer. Our team is currently working on developing a novel targeted therapy for cancer and has presented multiple posters on this topic at international conferences.