

## **Project Title: Increasing the resilience to the health impacts of extreme weather on elderly people under future climate change**

### **Abstract**

Extreme hot weather is expected to be more frequent and intense in Hong Kong under future climate change. The impacts will be exacerbated due to the presence of urban heat island (UHI) phenomenon in our high-density city. In particular, elderly people are more vulnerable to the impacts of extreme hot weather because of their decline in physiological functions and their behaviour and response. As such, plans for “mitigation” and “adaptation” actions are urgently needed.

Numerous studies have proved that excess mortality and morbidity are associated with extreme hot weather. It is important for different sectors of the society to take necessary actions. However, there are three issues to be addressed for successful responses, including lack of data at different spatial and temporal scales for understanding the extreme hot weather, lack of evidence-based mitigation and adaptation response plans.

The study team consists of twelve researchers from four local universities, with expertise ranging from global and regional climate modelling, urban-scale microclimatic studies, neighbourhood and building designs, public health, geriatric and gerontology, psychology.

The objectives of the present study are:

- To downscale global climate data to urban scale for weather information services and health impact assessment;
- To develop a mitigation action plan with better urban planning and building design under extreme weather;
- To develop an adaptation action plan for supporting services to increase the resilience of elderly people to extreme weather.