Abstract
Health is the most important demand for humans. Long and healthy life is one of the primary research subjects in human health research. However, it is difficult to accurately access health status at a very early stage, with the aim of determining appropriate interventions to maintain good health and wellbeing. Therefore, it is essential to optimise human health management polices and assess the risk factors associated with health status. Human health management is the process and means for health risk factors monitoring, prognostics, intervention and control based on our knowledge on human health and prevention using non-clinical and clinical linkage data. Some symptoms that could indicate potential advanced disease or chronic disease can often be ignored or missed. This will lead to serious delay in clinical diagnosis and timely treatment intervention. Subsequently, it will increase the medical treatment costs as well as increasing the patient’s physical, mental and financial burden. Our study aims to develop a systematic approach which integrates statistical and artificial intelligent health big data modelling into optimal health management decision-making with mobile application. By developing statistical modelling method for health big data on early diagnosis, prevention and intervention, we are developing a multi stage delay-time model to investigate risk factors and predict health status at an earlier stage of disease/illness progression using linked clinical and non-clinical data. In this talk, we will our recent research outcomes and discuss the challenges for the future study.

About the Speaker
Dr Xin Shi is a Reader in Applied Statistics, Faculty Lead for China at Manchester Metropolitan University Business School in the UK, Deputy Pro-Vice Chancellor for Research at Karaganda Medical University in Kazakhstan. Dr Xin Shi was trained in statistics at the University of Salford in the UK. During 2007 to 2009, Dr Xin Shi was working as a postdoc in the direction of evidence-based medicine in the medical school of the University of Sheffield, UK. Meanwhile, he worked as a research assistant in social statistics at the University of Manchester. He was awarded as Chartered Statistician (CStat) by the Royal Statistical Society in the UK in 2015. His main research interest lies in the field of statistical modelling in business and social science for decision-making, health prevention management in human beings and sports. Most of the current research activities focus on statistical life course modelling in business and social science using big data. Xin have published the research outcomes on the prestige journals including Scientific Reports, European Journal of Operational Research, Statistical Methods for Medical Research, Journal of Royal Statistical Society A, Journal of Operational Research, Otology and Neurology, etc.. In the last 5 years, Xin has been awarded over £1 million research grants from external and internal research bodies on business analytics.

All are Welcome!