



Application number/Title: 43456 - Association of physical activity, fitness, and obesity with cancer incidence and mortality

Applicant PI: Dr Charles Matthews

Applicant institution: National Cancer Institute, MD, USA

Collaborator: Dr Soren Brage, University of Cambridge / Dr Aiden Doherty, University of Oxford

Keywords provided by the Applicant PI to describe the research project:
cancer, fitness, mortality, obesity, physical-activity, sedentary behavior

Application Lay Summary:

While physical inactivity and obesity have been shown to increase risk of several cancers, current knowledge gaps exist due to the difficulty in obtaining reliable data from measures of physical activity (self-report) and body fat (body mass index) used in previous studies. By using more objective measures of both physical activity, fitness, and adiposity we can increase our understanding of how these behaviors are related to cancer risk. We propose to take advantage of the already available data from the UK biobank on physical activity (self-reported, accelerometer and cardiorespiratory fitness) and body fat (BMI and bioelectrical impedance) to address the previous limitations to assessing cancer risk. This project will provide further evidence on the roles physical activity and body fat have in cancer development and fill gaps in the literature regarding the importance of these modifiable risk factors for cancer prevention.