Grants Awarded

Bath Institute for Rheumatic Diseases
Supporting arthritis research, education and patient engagement

Project Summary

An epidemiological study of systemic sclerosis and its association with cancer in the UK using the UK Clinical Practice Research Datalink (CPRD)

Dr Pauling awarded £30000.00

This project will make an important contribution to our understanding of important epidemiological aspects related to SSc. A re-appraisal of the incidence and prevalence of SSc in the UK using novel methodological approaches is desirable for a number of reasons. If the prevalence of SSc is indeed lower in the UK than elsewhere, then additional work is required to explore important protective genetic, socioeconomic and environmental factors and could identify important aetiological drivers of SSc. A more detailed sub-analysis of changing disease incidence over time might also identify important aetiological drivers of SSc whilst a more accurate assessment of prevalence of SSc in the UK will have useful implications for service planning and accurate modelling of high-cost drug use.

The relationship between cancer and SSc is gradually being characterised but additional work is needed to understand better the potential association between these devastating diseases and the true burden of cancer in SSc. This study has the potential to greatly expand our understanding of the relationship between cancer and SSc. With earlier identification and treatment of organ-specific manifestations of SSc, the burden of cancer on morbidity and mortality in SSc is likely to increase in the future. Additional work to better understand the relationship between cancer and SSc is needed to raise awareness of this important association and develop evidence-based surveillance programmes to facilitate earlier identification of cancer in the context of SSc. Greater understanding of the epidemiological relationship between cancer and SSc will also shed further light on possible mechanistic associations linking cancer occurrence, autoimmunity and the development of SSc.

The proposed study therefore has the potential to make an important contribution to the efforts of the international scleroderma community to improve outcomes and survival in SSc. We anticipate this work will generate the necessary preliminary CPRD data to apply for additional support from major fund raising agencies such as Cancer Research UK to undertake a more comprehensive analysis of treatment and outcomes in predefined groups of interest using cancer registry linkage (potentially facilitating immunological testing and additional biomarker studies on stored sera).