

**Applicant**

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**Project Title**

A longitudinal study to understand heart disease onset and changing heart disease risk profile in osteoarthritis: Multi-joint symptoms and sex

**Project Summary**

Evidence is emerging that osteoarthritis (OA) is a risk factor for heart disease (HD), particularly for women, and potentially those with multi-joint OA. Biologic mechanisms are likely related to systemic inflammatory and metabolic factors. Our CLSA baseline data analyses showed that the characteristics of individuals with OA and those with OA-compatible joint symptoms are similar, except that the latter are younger. We have further shown that OA has an enhanced profile of HD risk factors (biological/self-reported), especially for women and those with multijoint involvement, compared to age-matched controls. With follow-up data we hypothesize that, compared to non-OA, a) people with OA will have higher HD incidence; b) the HD risk factor profile will worsen over time in OA, particularly for those with obesity and/or multijoint symptoms; and c) OA-compatible joint symptoms are a risk factor for incident OA.

**Keywords**

Osteoarthritis, Heart disease, Risk factors, Multijoint symptoms, Sex