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**Project Title**

Personalized Risk Assessment for Prevention and Early Detection of Breast Cancer: Generating Canadian Risk Estimates using CLSA Data

**Project Summary**

Breast cancer is the most common cancer and second leading cause of cancer death in Canadian women. A woman faces a one in eight chance of developing the disease in her lifetime. Currently, most provinces in Canada recommend that women aged 50 to 74 have a mammogram every 2 to 3 years. Risk stratified screening seeks to maximize the benefits and reduce harms of screening, by screening women based on their estimated risk of disease. Risk predication tools like the Breast and Ovarian Analysis of Disease Incidence and Carrier Estimation Algorithm (BOADICEA) are used to estimate a women's risk of breast cancer. The risk of breast cancer varies by geographical region, as does the distribution of lifestyle/hormonal risk factors. Understanding this information is important for accurate risk predication in specific populations. We aim to customize BOADICEA to the Canadian context using data from the Canadian Longitudinal Study on Aging.

**Keywords**

Breast cancer, Risk, Prevention, Algorithm, Validation, BOADICEA