Improved breast cancer survival rates have led to a growing population of breast cancer survivors, who are at risk of developing a new cancer in the contralateral breast. The current literature is inconclusive as to whether occurrence of contralateral breast cancer (CBC) *per se* will affect breast cancer survival, and how specific characteristics such as age and time interval between first and second tumour influence the survival. As breast cancer survivors potentially are faced with a worse prognosis if diagnosed with CBC, it is important to identify new preventive therapies and to increase the knowledge about known preventive therapies.

We examined these issues in two cohort studies based on Danish nationwide registries and in a multi-centre case-control study. The register-based cohort studies included patients diagnosed with breast cancer from the Danish Breast Cancer Group database while the case-control study was nested in the same database and in seven population-based cancer registries in the United States and Canada.

The results showed a markedly higher breast cancer-specific mortality associated with the occurrence of CBC compared with patients diagnosed with one breast cancer. We found higher breast cancer-specific mortality after CBC associated with a short interval between diagnoses among patients diagnosed with CBC before age 70 years. There was some indication that statins reduce the risk of CBC among breast cancer patients, especially patients diagnosed with estrogen-negative disease. Lastly, results in this thesis showed that treatment with tamoxifen and chemotherapy reduce the risk of CBC with persisting protective effects for a limited time following completion of treatment. The largest CBC risk reduction was associated with long-term active treatment with tamoxifen.

Our findings concerning mortality underscore the importance of identifying the patients who will develop CBC shortly after the first breast cancer since they are likely to benefit most from preventive interventions. The stronger CBC risk reduction associated with statin use among patients diagnosed with estrogen-negative disease needs to be confirmed in other studies. If confirmed, statins may have potential as a new treatment option for this patient subgroup for whom specific risk-reducing treatments are lacking. Finally, the observed CBC risk reductions of tamoxifen and chemotherapy supplemented findings from clinical trials with evidence of protection in ‘real world’ settings.