Introduction Breast cancer is one of the major causes of death in women around the world. Radio-genomics provide both radiological and genetic features that can enhance diagnosis. According to the authors in [1], breast cancer can be detected using several methods including X-ray mammography, ultrasound (US), computed tomography (CT), portion emission tomography (PET), magnetic resonance imaging (MRI) and breast temperature measurement. As for genomics, the authors in [2] stated that radio-genomics is an emerging research field focusing on multi-scale associations between medical imaging and gene expression data. The main difference between imaging information and radio-genomics is the critical knowledge gap between imaging at the tissue level and analyzing the underlying molecular and genetic disease biomarkers. While radio-genomics is much more effective than histopathological imaging, it is rarely used because the process involves datasets that are very expensive and require high computational power. In cases of in-situ carcinoma, the cancer is only in the mammary duct lobule system and does not affect other organs. This involves an image analysis of the removed tissue, which is stained in the lab to increase visibility.

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