

## Editorial note on Breast Cancer and Diagnosis

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Breast cancer is the most common and lethal carcinoma, commonly diagnosed in women. It is the second most cause of death followed by Lung cancer with more than 1.7 million cases in the year 2012 (most recent available statistics). More than half of the cases were observed in the developed and industrialized nations. This is doubtlessly credited to the accessibility of screening projects used to diagnose breast cancer, which may somehow would have never been diagnosed. The overall costs for the treatment of breast cancer in patient persisting breast cancer increases with its higher stages. In this manner, screening breast cancer at an early stage both advantages the patient and minimizes the financial burden. Molecular Diagnostics plays a crucial role in detection and management of Breast cancer. It not only helps provide personalized diagnostic information to the patient but also allows specific treatment plans which indeed help limiting resistance and reducing toxicity. This review briefly summarizes recent molecular techniques used for diagnostics of Breast cancer and provides updates with recent novel approaches in the field.

### Diagnosis

#### Diagnosing breast cancer

**Breast exam:** Your doctor will check both of your breasts and lymph nodes in your armpit, feeling for any lumps or other abnormalities.

**Mammogram:** A mammogram is an X-ray of the breast. Mammograms are commonly used to screen for breast cancer. If an abnormality is detected on a screening mammogram, your doctor may recommend a diagnostic mammogram to further evaluate that abnormality.

**Breast ultrasound:** Ultrasound uses sound waves to produce images of structures deep within the body. Ultrasound may be used to determine whether a new breast lump is a solid mass or a fluid-filled cyst.

**Removing a sample of breast cells for testing (biopsy):** A biopsy is the only definitive way to make a diagnosis of breast cancer. During a biopsy, your doctor uses a specialized needle device guided by X-ray or another imaging test to extract a core of tissue from the suspicious area. Often, a small metal marker is left at the site within your breast so the area can be easily identified on future imaging tests.

Other tests and procedures may be used depending on your situation.

Stay Safe & Healthy...!

Thank you!

With kind regards,  
Ayan Michael,  
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