**Breast Cancer**

Breast cancer is the most common cancer and the second cause of cancer deaths worldwide. Consequently there is an urgent need to develop new therapeutic agents and treatment strategies that are effective against this cancer. Treatment options for patients suffering from breast cancer are classically based on cytotoxic chemotherapy or antiestrogen treatment. New treatment strategies are directed towards newly identified targets. Thus breast cancer treatment is getting more and more tumor type specific resulting in an improved outcome combined with new side effects.

In this special issue the authors will present the most innovative treatment strategies for breast cancer based on the molecular pathological character of the tumor like luminal A/B, triple negative and Her2 overexpressing breast cancer. Thus, innovative endocrine treatment options for example CDK 4/6 inhibitors and PI3K-inhibitors will be discussed for endocrine responsible breast cancer. In triple negative breast cancer the importance of neoadjuvant treatment is presented combined with the newly accepted inhibition of the PDL1 pathway. In addition the meaningful results of PARP inhibition in BRCA mutated breast cancer are analyzed. For Her2 overexpressing breast cancer all treatment options of inhibiting this pathway with regard to the actual studies are presented for the neoadjuvant, adjuvant, post neoadjuvant and metastatic setting are presented. Last but not least the actual recommendations for oncolgic and oncoplastic surgery including sentinel lymph node resection are discussed.

This issue should give a summary of the modern treatment strategies in breast cancer with a special aspect on the actual guidelines and recommendation of the new systemic treatment options.

**Keywords:**

Breast cancer, systemic treatment, adjuvant setting, metastatic setting, genetic counselling, triple negative breast cancer, Her2+ breast cancer, endocrine treatment

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