

# World Congress on **Breast Cancer**

August 03-05, 2015 Birmingham, UK

## Origin of breast cancer metastasis

**Gaspar Banfalvi**

University of Debrecen, Hungary

Abdominal organs (liver, kidney, spleen) are frequent targets of cancer cell invasion, but less known for their metastatic potential to other organs (e.g. breast). In spite of the possible connection between the pathogenesis of liver and breast cancers the study of this relationship was neglected. The spread of abdominal tumors to internal mammary lymph nodes has not been reviewed earlier. The idea of breast cancer being a metastasis rather than a primary tumor is based on the metastatic spread of rat tumor cells released by abdominal primary tumors (He/De, Ne/De) and leukemia (My1/De, My2/De) cells. The metastatic process starts with the peripheral disruptions of primary tumors. Tumor cells released into the abdomen cross the apertures of the diaphragm and enter the thoracic lymph nodes. Tumor cells accumulate in parathymic lymph nodes. Abdominal colloidal carbon particles faithfully mimic the migration of tumor cells and deposit in parathymic lymph nodes. Explanation is provided why the connection between abdominal tumors and mammary tumors escaped attention, notably rodent parathymic lymph nodes in humans were referred to as internal mammary or parasternal lymph nodes. These developments will impact future breast cancer diagnosis and therapy.

## Biography

Gaspar Banfalvi studied pharmacy and received doctorate in Szeged (1972), spent two years at the Institute for Drug Research (Budapest, 1972-1974). He obtained degrees (CSc, DSc, Med. Habil.) at the Department of Medical Chemistry, Budapest and Habil. Biol. at University of Szeged. He took a biology chair at University of Debrecen (2000 - 2005). Teaching obligations: chemistry, biochemistry, cell biology, genetics, physiology. Longer visits: > 4 years Boston, 5 months Leiden, 6 mo NCTR, 8 mo Weizmann Institute. Research interest: DNA structure and function, genotoxicity, metastasis.

## Notes: