

Martine J. Piccart, M.D., Ph.D.
2015 Susan G. Komen®

Brinker Award for Scientific Distinction in Clinical Research



Martine J. Piccart, M.D., Ph.D., is being honored for her seminal contributions in improving the treatment of breast cancer, which have helped to shape the standard of care for breast cancer patients globally. Prof. Piccart has devoted her career to improving breast cancer patient care and expanding the understanding of breast cancer biology. She has led a wide range of translational clinical trials testing new therapeutic agents for the treatment of breast cancer—trials that have had a lasting impact on patient outcomes.

Prof. Piccart has led many clinical trials that have changed clinical practice or paved the way towards more personalized treatment of breast cancer. Her career has focused on optimizing the treatment of breast cancer for specific patient populations. Her clinical research included multimodality studies to determine optimal drug doses and treatment durations, the best treatment sequence and the most effective drug combinations to treat early, locally advanced and metastatic breast cancers. She investigated the use of prognostic and predictive factors to guide treatment, and led other studies focused on symptom control and quality of life for cancer patients during treatment.

As she advanced in her career, Prof. Piccart became a strong advocate for and leader of international research collaborations. In 1999, she and Prof. Aron Goldhirsch founded the Breast International Group (BIG) to foster global collaboration to make significant advances in breast cancer research and contribute to the faster development of better treatments. The organization, which she still chairs, unites 56 academic breast cancer research groups from around the world, and is running over 30 clinical trials, several of which are considered landmark studies.

For example, the HERA (HERceptin Adjuvant) trial, a 39-country study that accrued more than 5,000 early-stage HER2-positive breast cancer patients from 2001 to 2005, helped accelerate the FDA's approval of trastuzumab, which is now the standard treatment for early stage HER2-positive breast cancer, in 2006. The ALTTO (Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation) study, which showed that the combination therapy was not better than trastuzumab alone, enrolled over 8,000 women in 44 countries and was the largest adjuvant clinical trial conducted in women with HER2-positive breast cancer. Three other BIG studies recruiting nearly 18,000 patients contributed to the body of evidence that aromatase inhibitors could be used as a safe alternative to tamoxifen.

In 2004, Dr. Piccart created TRANS-BIG, a research consortium within BIG that focuses on accelerating the translation of laboratory findings into treatments for breast cancer patients and using clinical experience with patients to inform further developments in the laboratory. The first project of TRANS-BIG is the MINDACT (Microarray for Node Negative Disease May Avoid Chemotherapy) study, which will determine whether a microarray test is better than traditional methods at identifying aggressive tumors that require chemotherapy treatment after surgery, and sparing patients with a low risk of relapse from overtreatment.

Prof. Piccart is also leading the AURORA trial, which launched in 2014 and is using molecular screening to understand the genetic changes driving breast cancer metastasis and the response (or lack of response) of metastatic breast cancer to available drug therapies. Through this trial, metastatic and primary breast cancer tissue specimens will be collected and screened for the first time on an international scale.

Prof. Piccart earned her M.D. at Université Libre de Bruxelles (ULB) in 1978. She continued her clinical training, earning her oncology fellowship certification at the New York University Medical Center and her European certification in medical oncology in London. She earned her Ph.D. from ULB in 1993. Prof. Piccart is currently Professor of Oncology at the Université Libre de Bruxelles, and Director of Medicine at the Jules Bordet Institute, in Brussels, Belgium. She was elected to the Belgian Royal Academy of Medicine in 2006.

Prof. Piccart's leadership, innovation and collaborative efforts in the fields of breast cancer treatment and drug development have advanced breast cancer treatment and survival. An accomplished clinician and scientist, Prof. Piccart is co-author of over 470 publications in peer-reviewed journals. Her relentless drive for more fruitful global scientific collaborations and her direction of multi-national, multi-institution clinical trials will significantly impact the field of breast cancer treatment and benefit breast cancer patients worldwide for many years to come.