Dennis Slamon, M.D., Ph.D
2017 Susan G. Komen®
Brinker Award for Scientific Distinction in Clinical Research

Dennis J. Slamon, M.D., Ph.D., is being honored for his influential contributions in laboratory and clinical research that helped define the role of the *HER2/neu* gene in breast cancer and have laid the groundwork for the development of targeted therapies, including two drugs: trastuzumab, the first targeted therapy for HER2+ breast cancer, and palbociclib, a CDK 4/6 inhibitor used to treat ER+ breast cancer. His work has helped shape the standard of care for breast cancer and benefitted millions of breast cancer patients worldwide.

Dr. Slamon has focused his research career on the development of novel therapies for breast cancer. For 12 years, he and his colleagues conducted the laboratory and clinical research that led to the development of the breast cancer "wonder drug" trastuzumab. In the 1980s, they found that 25 to 30% of breast cancers expressed high levels of the growth factor HER2, which was driving breast cancer cell growth and was associated with poorer outcomes. These fast-growing HER2-positive (HER2+) breast cancers suddenly had an Achille's heel. Dr. Slamon then led the clinical development of drugs targeting HER2, from pre-clinical studies to the proof of concept early clinical work, to the clinical trials that led to the Food and Drug Administration (FDA) approval of trastuzumab in combination with chemotherapy for the treatment of HER2+ metastatic breast cancer in 1998. Subsequent work led to its approval for the treatment of all HER2+ breast cancers, alone or in combination with chemotherapy. To this day, Dr. Slamon and colleagues continue to optimize the use of HER2 targeted therapies and investigate mechanisms of resistance to these drugs.

As much of a game changer trastuzumab was for breast cancer patients, Dr. Slamon's tremendous role in fighting breast cancer was far from over. In 2007, he expanded his focus and started to investigate the biology of other breast cancer subtypes in a quest to find and target their Achilles' heels. He and colleagues found that estrogen receptor (ER)-positive breast cancers are uniquely sensitive to inhibitors of cyclin dependent kinases 4 and 6 (CDK4 and CDK6, two proteins necessary for cell division). Dr. Slamon then led the clinical studies that resulted in FDA approval, in 2015, of the drug palbociclib in combination with letrozole (an aromatase inhibitor) in women with ER+/HER2- metastatic breast cancer. Dr. Slamon and colleagues continue their clinical investigations of palbociclib for the treatment of ER+ breast cancer.

Dr. Slamon received his M.D. and Ph.D. from the University of Chicago. After he completed his internship and residency at the University of Chicago Hospitals and Clinics, he joined the faculty of the University of California, Los Angeles (UCLA). He became the Director of Clinical and Translational Research of the Jonsson Comprehensive Cancer Center, David Geffen School of Medicine at UCLA in 1988. He was named Executive Vice-Chair for Research of the school in 1994. The importance of his work was acknowledged when Dr. Slamon was appointed in 2000 by President Clinton to the President's Cancer Panel, a three-member

committee monitoring the development and implementation of the National Cancer Program, on which he served until 2003.

An accomplished clinician and scientist with a relentless drive to develop new drugs for breast cancer, Dr. Slamon has revolutionized breast cancer treatment, shifting it from a “one size fits all” approach to a targeted approach guided by the molecular drivers of breast cancers. His research has been transformative for breast cancer patients worldwide, and will continue to have a significantly impact the field of breast cancer treatment and benefit breast cancer patients worldwide for many years to come.