Two of the top five advances in cancer research for 2011 cited by the annual progress report of the American Society of Clinical Oncology (ASCO) were led by Memorial Sloan Kettering Cancer Center.

The report focuses on several improvements in the areas of personalized medicine and targeted therapy. ASCO is the world's leading professional organization for physicians who care for people with cancer.

Among the key advances cited was a large, multicenter, phase III study for vemurafenib, a drug for melanoma that targets a mutation in the *BRAF* gene. The mutation occurs in about half of people with melanoma, an aggressive form of skin cancer. The study, led by Memorial Sloan Kettering medical oncologist Paul Chapman, found that the drug increased overall survival in patients with advanced cases of melanoma when compared with standard chemotherapy.

Another effort that Memorial Sloan Kettering led was the US Food and Drug Administration's approval of ipilimumab, a drug that harnesses the body's immune system to fight cancer. The drug was originally developed by James P. Allison, Chair of the Sloan Kettering Institute's Immunology Program, and studied in several clinical trials led by Memorial Sloan Kettering physician-scientist Jedd Wolchok.

In addition, Memorial Sloan Kettering investigators participated in other advances that were cited as noteworthy in 2011:

- Carol Aghajanian, Chief of the Gynecologic Medical Oncology Service, was the leader of a large study that showed that combining the drug bevacizumab with standard chemotherapy could reduce the risk of progression of recurrent ovarian cancer by 52 percent.
- Howard Scher, Chief of the Genitourinary Oncology Service, led a trial of abiraterone, a new class of treatment for men with metastatic castration-resistant prostate cancer whose disease progresses despite testosterone-lowering treatment. The drug, which offers a new treatment option for patients who historically have had very few available, was approved by the FDA in 2011.