Dana-Farber researchers present findings in more than 70 research studies at ASCO annual meeting 2019

- Studies represent work of more than 60 Dana-Farber Cancer Institute led research teams
- Three researchers are recipients of ASCO’s Special Awards, the Society’s highest honors

Boston – Dana-Farber Cancer Institute researchers are presenting more than 70 research studies at the 2019 Annual Meeting of the American Society of Clinical Oncology (ASCO) in Chicago, May 31st- June 4th. ASCO is the world’s largest clinical cancer research meeting, attracting more than 30,000 oncology professionals from around the world.

The latest cancer research findings from more than 60 different Dana-Farber Cancer Institute led research teams align with ASCO’s 2019 theme, Caring for Every Patient, Learning from Every Patient. The findings show new treatments and diagnostic advances in breast and lung cancers, multiple myeloma, sarcoma, leukemia and many others. Some of the research highlights include:

Author: Paul G. Richardson, MD
Title: A phase III randomized, open label multicenter study comparing isatuximab, pomalidomide, and low-dose dexamethasone versus pomalidomide and low-dose dexamethasone in patients with relapsed/refractory multiple myeloma (RRMM)
Abstract: 8004
Session time: Sunday, June 2, 9:45 a.m. – 12:45 p.m. Hematologic Malignancies – Plasma Cell Dyscrasia; Presentation time 10:57 a.m.

Combining the monoclonal antibody isatuximab with pomalidomide and low-dose dexamethasone in patients with relapsed, treatment-resistant multiple myeloma can significantly extend the period in which patients live without the disease worsening, a phase III clinical trial led by Dana-Farber Cancer Institute investigators has shown. The trial, which involved 307 patients, found that at a median follow-up of 11.6 months, the median progression-free survival for patients receiving the three-drug therapy was 11.5 months, vs. 6.5 months for those receiving the standard therapy of pomalidomide and dexamethasone. The overall response rate for the first group, at 60.4%, was also far higher than for the standard therapy group, at 35.3%. Side effects of the three-agent therapy were manageable, researchers report.
Author: Otto Metzger Filho, MD
Title: HER2 heterogeneity as a predictor of response to neoadjuvant T-DM1 plus pertuzumab: Results from a prospective clinical trial
Abstract: 502
Session Time: Monday, June 3, 9:45 a.m. – 12:45 p.m. Breast Cancer – Local/Regional/Adjuvant; Presentation time 10:09 a.m.

We conducted the first clinical trial designed to interrogate the impact of HER2 heterogeneity on response to classic anti-HER2 therapies in breast cancer. HER2 heterogeneity is defined by the presence of at least two distinct clones of cells with different levels of HER2 amplification within a tumor. It is unclear if HER2 heterogeneity impacts response to targeted anti-HER2 therapies for patients diagnosed with HER2-positive breast cancer. To answer this question, we conducted a study including patients with stage II and III HER2+ breast cancer and treated with trastuzumab emtansine (T-DM1) and pertuzumab before surgery. Heterogeneity was assessed according to the definition from the College of American Pathologists and detected in 10% of evaluable patients. The study met its primary endpoint by demonstrating a significant association between HER2 heterogeneity and pathologic complete response (pCR) after preoperative therapy. No pCR was observed among cases classified as HER2-heterogenous.

Author: Lynda M. Vrooman, MD
Title: Efficacy and toxicity of pegaspargase and calaspargase pegol in childhood acute lymphoblastic leukemia/lymphoma: Results of DFCI 11-001
Abstract: 10006
Session Time: Friday, May 31, 2:45 p.m. - 5:45 p.m. Pediatric Oncology I; Presentation time 4:45 p.m.

A multi-center clinical trial led by Dana-Farber/Boston Children's Cancer and Blood Disorder Center investigators has contributed to Food and Drug Administration (FDA) approval of a novel drug for acute lymphoblastic leukemia (ALL). The randomized trial for patients with newly diagnosed ALL compared the efficacy and toxicity of calaspargase pegol, a novel pegylated asparaginase formulation designed for longer activity in the body, with standard-of-care pegaspargase. Given every three weeks rather than two weeks as with the standard treatment, calaspargase pegol provided similar overall survival, event-free survival and safety profiles. In December 2018, the FDA approved the use of calaspargase pegol for the treatment of ALL in pediatric and young adult patients.

Author: Sarah Abou Alaiwi, MD
Title: Association of polybromo-associated baf (PBAF) complex mutations with overall survival (OS) in cancer patients (pts) treated with checkpoint inhibitors (ICIs)
About 20% of human malignancies display genetic mutations in subunits of the “mammalian SWI/SNF complex” that are involved in gene regulation and implicated as tumor suppressors. This study examined whether mSWI/SNF complex gene mutations were associated with clinical outcomes in 684 cancer patients with solid tumors who were treated with checkpoint blockade inhibitors. Preliminary analysis suggests that among these patients, there is a correlation between mutations in a mSWI/SNF complex sub-complex known as PBAF and longer overall survival. An updated analysis examining mutations in six mSWI/SNF genes and additional variables for clinical outcomes in a larger patient cohort will be presented.

Author: Pasi A. Janne, MD, PhD
Title: Safety and preliminary antitumor activity of U3-1402: A HER3-targeted antibody drug conjugate in EGFR TKI-resistant, EGFRm NSCLC
Abstract: 9010
Session time: Friday, May 31, 1:00 p.m. – 2:30 p.m. EGFR and ROS1: Targeting Resistance; Presentation time 1:24 p.m.

A drug conjugate consisting of an antibody and a topoisomerase inhibitor was deemed safe and showed preliminary anti-tumor activity in a Phase I trial involving patients with metastatic or inoperable non-small cell lung cancer (NSCLC) that carries a mutated EGFR gene, Dana-Farber Cancer Institute investigators will report. The trial involved 15 patients whose cancer worsened after treatment with drugs that target the EGFR protein in tumor cells. The drug conjugate, known as U3-1402, includes an antibody directed against the HER3 protein, which is expressed in the majority of EGFR-mutant lung tumors.

The antibody, coupled to a topoisomerase I inhibitor, delivers the inhibitor directly to tumor cells, where it acts as a toxin. Of 13 evaluable patients, all but one showed some tumor shrinkage, and the range of side effects associated with the treatment was manageable.

Author: Andrew J. Wagner, MD, PhD
Title: ABI-009 (nab-sirolimus) in advanced malignant perivascular epithelioid cell tumors (PEComa): Preliminary efficacy, safety, and mutational status from AMPECT, an open label phase II registration trial
Abstract: 11005
Session time: Monday, June 3, 8:00 a.m. – 11:00 a.m. Sarcoma; Presentation time 9:24 a.m.

In the first prospective clinical trial involving malignant perivascular epithelioid cell cancer (PEComa) – a rare, aggressive sarcoma with no approved treatment – a novel compound
produced responses in nearly half of participating patients with manageable side effects, Dana-Farber Cancer Institute investigators will report. The compound, ABI-009, is an inhibitor of the mTOR protein, which is often expressed in malignant PEComa. Of 31 patients participating in the trial, dubbed AMPECT, 13 – or 42% – experienced a partial response to the compound, with some reduction of the disease. Thirty-five percent had stable disease, and 23% saw their disease worsen. Sixty-nine percent of the partial responses are continuing, with five patients benefiting after more than a year on treatment, and two benefiting after more than two years. Patients whose tumors carried mutations in the TSC2 gene were much more likely to respond to the treatment than patients without mutations in TSC2 or TSC1. The most common Grade 3 (severe) side effects were mucositis and anemia.

Three Dana-Farber researchers are also recipients of ASCO's Special Awards, the Society’s highest honors.

Robert J. Mayer, MD, FASCO, faculty vice president for academic affairs at Dana-Farber Cancer Institute, senior physician at the Brigham and Women’s Hospital, and the Stephen B. Kay professor of medicine at Harvard Medical School, is the recipient of the Distinguished Achievement Award, presented during the Plenary session on Sunday, June 2nd at 1:00pm.

Ann H. Partridge, MD, MPH, FASCO, vice-chair of medical oncology at Dana-Farber Cancer Institute, director of the Adult Survivorship Program and Program for Young Women with Breast Cancer, and a professor of medicine at Harvard Medical School, is the recipient of the Ellen L. Stovall Award and Lecture for Advancement of Cancer Survivorship Care, presented on Monday, June 3rd at 11:30am.

Judy E. Garber, MD, MPH, FASCO, Susan F. Smith Chair and chief of the Division of Cancer Genetics and Prevention at Dana-Farber Cancer Institute and a professor of medicine at Harvard Medical School, is the recipient of the ASCO-American Cancer Society Award and Lecture, presented on Monday, June 3rd at 1:15pm.


Media Contacts

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About Dana-Farber

Dana-Farber Cancer Institute is one of the world’s leading centers of cancer research and treatment. It is the only center ranked in the top 4 of U.S. News and World Report’s Best Hospitals for both adult and pediatric cancer care.
Dana-Farber’s mission is to reduce the burden of cancer through scientific inquiry, clinical care, education, community engagement, and advocacy. We provide the latest in cancer for adults through Dana-Farber/Brigham and Women’s Cancer Care and for children through Dana-Farber/Boston Children’s Cancer and Blood Disorders Center. Dana-Farber is dedicated to a unique and equal balance between cancer research and care, translating the results of discovery into new treatments for patients locally and around the world.

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