Vol. 32 No. 5
May 2009

THE
# CLINICAL CANCER LETTER
*Cancer research news for clinicians*

© Copyright 2009
The Cancer Letter Inc.
All rights reserved.

*ASCO Annual Meeting:*

## ASCO Briefing Highlights Seven Studies That Could Change Clinical Practice

The American Society of Clinical Oncology highlighted seven studies on a media presscast from among more than 4,000 abstracts publicly posted online at www.abstract.asco.org in advance of ASCO's 45th annual meeting.

The meeting, which is expected to draw approximately 30,000 cancer specialists, will be held May 29-June 2, in Orlando, Fla. The theme of this year's meeting is "Personalizing Cancer Care."

"A large number of studies to be reported at this year's meeting will change clinical practice, and demonstrate the important progress that is being made in every area of cancer research," said Richard Schilsky, president of

(Continued to page 2)

*Head & Neck Cancer:*

## Roswell Park Researchers Advocate HPV Vaccination For Boys As Well As Girls

Researchers at Roswell Park Cancer Institute are strongly advocating a national discussion about the need to vaccinate both young men and women against HPV 16 to prevent head & neck cancers.

The call comes amid growing evidence that certain cancers of the head and neck are strongly linked to HPV 16, a specific strain of the human papillomavirus that is one of the most common sexually transmitted diseases in the U.States. It is estimated that approximately 70% of Americans, both men and women, will be infected with HPV at some point in their lives.

The types of cancer associated with HPV 16 occur mostly at the back (base) of the tongue, in the tonsils, and in the soft palate at the back of the throat, according to Thom Loree, chairman of the Department of Head & Neck Surgery at Roswell Park. Over the past 10 years, members of RPCI's Head & Neck Department have seen a threefold increase in the number of throat cancers they treat.

In 2007, Roswell Park researchers began testing all head and neck tumors treated at the Buffalo-based comprehensive cancer center for the presence of HPV DNA, said Saurin Popat, attending surgeon in Head & Neck and Plastic & Reconstructive Surgery. Data from the testing have been combined with data from archived tumor samples to provide a clearer picture of how many head and neck cancers treated at RPCI test positive for HPV. To date, the total is around 50 to 60 percent.

There are more than 100 types of HPV—each identified by number—but

(Continued to page 6)



PO Box 9905
Washington DC 20016
Telephone 202-362-1809

## ASCO Releases Study Results In Advance Of Annual Meeting

(Continued from page 1)

ASCO and professor of medicine at the University of Chicago. "Many studies to be presented this year reflect advances in the new field of personalized cancer medicine, in which therapy can be targeted or avoided based on the genetics of the patient's tumor, not just its location or stage."

"It is very encouraging that the country is beginning to reinvest in cancer research after years of flat funding," said Douglas Blayney, president-elect of ASCO, professor of internal medicine at the University of Michigan Medical School and medical director of the Comprehensive Cancer Center at the University of Michigan. "Sustained increases in cancer research funding are critical to continued improvements in survival. Equally important is making the fruits of cancer research available to all. Health care reform must ensure that everyone has access to life-saving cancer screening and treatment."

Studies highlighted in the press briefing include:

*Experimental immunotherapy improves survival for children with neuroblastoma:* An antibody-based immunotherapy (chimeric anti-GD2 antibody ch.14.18) reduced the risk of relapse and improved overall survival among patients with high-risk neuroblastoma, a difficult-to-treat cancer of the nervous system that afflicts young children.

*Ginger supplements can relieve chemotherapy-related nausea:* Early use of ginger supplements, in combination with traditional antinausea drugs, significantly reduces chemotherapy-related nausea in patients with cancer.

*Gene assay predicts colon cancer recurrence risk:* A new gene signature assay predicts risk of recurrence among patients with stage II colon cancer, information that could help determine whether patients should consider receiving chemotherapy.

*Large study confirms HPV status linked to better outcomes for oropharyngeal cancer:* Patients with advanced oropharyngeal cancer (cancers of the upper throat) whose tumors contained the human papillomavirus (HPV) have better outcomes than patients with HPV-negative disease.

*EGFR status predicts response to first-line gefitinib for lung cancer:* Asian patients with non-small cell lung cancer with mutations in the *EGFR* gene who were nonsmokers or light smokers and who were treated with gefitinib (Iressa) as initial chemotherapy experienced significantly slower cancer progression than patients without this mutation. Patients with this mutation fared better with gefitinib than with conventional chemotherapy, while patients without the mutations responded better to standard chemotherapy.

*First-ever standard of care established for advanced biliary cancers:* Combination treatment with gemcitabine (Gemzar) and cisplatin reduces the risk of death and the risk of cancer growth in patients with inoperable advanced cancers of the biliary tract (gallbladder and bile duct), compared with gemcitabine treatment alone.

*Limited patient concern about cost of supportive care in clinical trials:* A minority of patients in cancer clinical trials experience anxiety about – or adopt coping strategies for paying for the supportive medications they need to manage chemotherapy side effects. The study also found that cost is rarely discussed among patients and physicians.

**Immunotherapy for High-Risk Neuroblastoma**

A phase III Children's Oncology Group clinical trial has found that an antibody-based immunotherapy—chimeric anti-GD2 antibody ch14.18—reduced the risk of relapse and improved overall survival by 20 percent among patients with high-risk neuroblastoma, a difficult-to-treat cancer of the nervous system that largely afflicts young children.

"Even though we treat it with aggressive therapy, high-risk neuroblastoma often returns and most patients do not survive," said lead author Alice Yu, professor

**The Clinical Cancer Letter**

To purchase a subscription, call 800-513-7042 or visit www.cancerletter.com

Publisher: Kirsten Boyd Goldberg
Editorial Assistant: Shelley Whitmore Wolfe

Editorial: 202-362-1809 Fax: 202-379-1787
PO Box 9905, Washington DC 20016
Customer Service FAQ at www.cancerletter.com

Customer Service: 800-513-7042
PO Box 40724, Nashville TN 37204-0724

THE CLINICAL CANCER LETTER (ISSN 164-985X). Published monthly, subscription $135 per year, by The Cancer Letter Inc. All rights reserved. None of the content of this publication may be reproduced, stored in a retrieval system, or transmitted in any form (electronic, photocopying, facsimile, or otherwise) without prior written permission of the publisher. Violators risk criminal penalties and $100,000 damages.

of pediatric hematology/oncology at the University of California in San Diego and the UCSD Moores Cancer Center. "It is very exciting to have a new treatment option for this disease, and we hope to make this immunotherapy available to more children with neuroblastoma."

Conventional treatment for high-risk neuroblastoma includes surgery, intensive chemotherapy with stem cell rescue (in which patients' stem cells removed before treatment are returned after chemotherapy to repopulate the blood and immune system), and radiation therapy. Despite these aggressive measures, only 30 percent of patients survive.

The immunotherapy evaluated in this study targets a specific glycolipid (sugar and fat molecule) on neuroblastoma cells called GD2, which inhibits the immune system from attacking cancer cells, with an antibody called ch14.18. This antibody binds to GD2 and provokes an attack by different types of immune cells against the cancer.

Yu and her colleagues compared event-free survival (the percentage of patients who were still alive or did not experience a relapse) and overall survival between 113 patients newly diagnosed with high-risk neuroblastoma who responded to induction chemotherapy/stem cell rescue and who received the standard treatment (retinoic acid) plus immunotherapy (the antibody plus immune-boosting substances), with 113 similar patients who received the standard treatment alone.

After two years, event-free survival was 66 percent in the immunotherapy group versus 46 percent in the standard treatment group. Overall survival at two years was 86 percent for the immunotherapy group versus 75 percent for the standard treatment group. The most common side effects in the immunotherapy group were pain (21 percent), vascular leak syndrome (accumulation of fluid in the body, a complication of immunotherapy; 7.3 percent), and allergic reactions (7.2 percent).

**Ginger Reduces Chemotherapy-Related Nausea**

In the largest study to date evaluating the benefits of ginger for patients undergoing chemotherapy, researchers report that early use of ginger supplements, in combination with traditional antinausea drugs, significantly reduces chemotherapy-related nausea in patients with cancer.

"As many as 70 percent of patients who undergo chemotherapy experience nausea and vomiting. We found that patients who received traditional anti-nausea drugs along with ginger supplements prior to chemotherapy experienced significantly less nausea associated with their chemotherapy," said Julie Ryan, assistant professor of dermatology and radiation oncology at the University of Rochester and the study's lead author. "However, as with all supplements, patients should speak with their doctors first before taking ginger."

Ginger is well-absorbed by the body and may have anti-inflammatory properties in the GI tract. Prior, smaller studies assessing the benefit of ginger for chemotherapy-related nausea have produced inconsistent results, and did not examine ginger supplementation before initiating chemotherapy, which allows for earlier absorption by the body.

In this National Cancer Institute-funded study, 644 patients were randomly assigned to receive a placebo or 0.5g, 1.0g or 1.5g of ginger (in capsule form) divided into two doses given each day for six days, starting three days before the first day of a chemotherapy cycle. All patients also received traditional drugs used to manage nausea associated with chemotherapy (antiemetics).

Patients rated their nausea at various times of day during the first four days of the chemotherapy cycle. (Patients are most likely to experience the most unpleasant nausea on the first day of chemotherapy and are less likely to have nausea on subsequent days if they don't experience it on the first day.) The findings showed that all doses of ginger significantly reduced nausea more than the placebo, with the 0.5g and 1.0g doses having the greatest effect.

**HPV Status Predicts Throat Cancer Survival**

The largest and most definitive study to date has found that patients with stage III or IV oropharyngeal cancer (cancers of the upper throat) whose tumors contained the human papillomavirus (HPV) have better outcomes than patients with HPV-negative disease.

"Our findings showed that HPV status is as strong a predictor of outcome as cancer stage for patients with oropharyngeal cancers, even after considering other factors such as age and smoking history," said lead author Maura Gillison, professor of medicine, epidemiology, and otolaryngology at The Ohio State University. "We're still not entirely sure why this is, but these data provide further evidence that HPV-positive oropharyngeal cancer is a distinct disease entity."

Previous smaller studies have suggested that patients with HPV-positive oropharyngeal tumors fare better than their HPV-negative counterparts. But patients with HPV-positive oropharyngeal cancer also tend to be younger, have a smaller tumor at diagnosis, and are less likely to smoke than HPV-negative patients.

This is the first study large enough to consider

HPV together with these other factors in patients who received the same therapy in a large clinical trial.

As part of a Radiation Therapy Oncology Group phase III clinical trial, Gillison and her colleagues compared the time it took for cancer to progress (progression-free survival) and overall survival between 206 patients with oropharyngeal cancer containing HPV (mostly HPV subtype 16) and 117 patients with HPV-negative cancers; all patients received a combination of radiation therapy and chemotherapy.

At two years, 87.9 percent of HPV-positive patients were still alive, compared with 65.8 percent of HPVnegative patients. Two-year progression-free survival for the groups was 71.8 percent and 50.4 percent, respectively. The incidence of second primary cancers among HPV-positive patients was less than half that of HPV-negative patients at five years: 9.0 percent versus 18.5 percent.

Gillison noted that the association between HPV and head and neck cancers is already changing the way clinical trials are designed, with investigators stratifying patients by HPV status. Other studies are being designed to assess the efficacy of the HPV vaccine for the prevention of these cancers.

**Assay Predicts Colon Cancer Recurrence Risk**

Researchers from the U.S. and the United Kingdom have developed and validated the first genomic test—the Oncotype DX colon assay—to predict the risk of recurrence among patients with stage II colon cancer. The test scores the results of a multi-gene assay to estimate a patient's risk of colon cancer recurrence. Physicians can use this score in conjunction with other pathologic measures to determine whether patients should consider chemotherapy after surgery or whether they can safely forego additional treatment.

"Having this well-validated molecular signature to predict risk of colon cancer recurrence will have a significant impact on the way we treat patients with this disease," explained presenting author David Kerr, professor of cancer medicine at the University of Oxford. "This assay gives physicians important clinical information that will enable them to better select the right patients for the right treatment at the right time."

About 25 to 30 percent of people diagnosed with colon cancer have stage II disease. Giving chemotherapy after surgery can increase survival, but it is often difficult to determine which patients could benefit from chemotherapy and which can be spared from its side effects without compromising survival.

In four development studies with the National Surgical Adjuvant Breast and Bowel Project and the Cleveland Clinic, investigators analyzed 761 genes from 1,851 patients with stage II colon cancer and identified 18 genes with the potential to predict the likelihood of cancer recurrence and response to chemotherapy. An assay quantifying the expression of the 18 genes was then independently evaluated in 1,436 additional patients in the QUASAR (Quick And Simple And Reliable) validation study.

This study reports on the results of those efforts. The researchers were able to validate a recurrence score that predicts colon cancer recurrence risk, but they did not meet their secondary goal of validating a separate score that would predict a patient's response to treatment with standard chemotherapy (5-fluorouracil and leucovorin) after surgery.

A separate 21-gene version of the Oncotype DX test is already available for breast cancer patients. The new version for patients with colon cancer could be available starting in 2010.

***EGFR* Status Predicts Response to Gefitinib**

Biomarker data from the prospective IPASS (IRESSA Pan-Asia) Study showed for the first time that Asian patients with non-small cell lung cancer (NSCLC) with mutations in the *EGFR* gene who were nonsmokers or light smokers and who were treated with gefitinib (Iressa) as initial treatment experienced significantly slower cancer progression than patients without this mutation, and fared better with gefitinib than with conventional chemotherapy. Patients without *EGFR* mutations benefited more from standard chemotherapy.

"These findings indicate that *EGFR* mutation status is a strong predictor of response to first-line gefitinib in patients with non-small cell lung cancer, and that physicians should consider testing patients in similar populations for this mutation," said Masahiro Fukuoka, professor of medicine at Kinki University School of Medicine in Osaka, Japan and the study's lead author. "These findings are also good news for patients because gefitinib tends to be associated with fewer side effects than conventional chemotherapy, and is administered orally instead of intravenously, which could help patients maintain a higher quality of life."

Prior data from the IPASS Study demonstrated that first-line treatment with gefitinib was more effective for slowing cancer growth than conventional chemotherapy in Asian patients with stage IIIB/IV lung adenocarcinoma who had been nonsmokers or light smokers. However, the effect was not consistent. (Progression-free survival

initially favored the chemotherapy group, and shifted to the gefitinib group over time.)

In this study, Fukuoka and his colleagues sought to isolate which of these patients benefited most from gefitinib treatment, and which *EGFR*-related biomarkers predicted significantly delayed tumor growth and overall survival. He and his colleagues evaluated 261 patients with *EGFR* mutations who received gefitinib or conventional chemotherapy (carboplatin and paclitaxel) as initial therapy for NSCLC, compared with 176 patients who did not have this mutation.

Patients with *EGFR* mutations fared better with gefitinib, while those without *EGFR* mutations responded better to standard chemotherapy. Among patients with *EGFR* mutations, median progression-free survival was 9.5 months with gefitinib versus 6.3 months with carboplatin/paclitaxel. Among patients without *EGFR* mutations, median progression-free survival was 5.5 months with carboplatin/paclitaxel, versus 1.5 months with gefitinib.

No significant differences in overall survival were observed in this interim analysis, though Fukuoka noted that it is too early in the study to make any conclusions about survival.

**Combination Treatment for Biliary Tract Cancer**

The largest study of its kind has found that a combination treatment of gemcitabine (Gemzar) and cisplatin reduces the risk of death by 32 percent and risk of cancer progression by 30 percent in patients with inoperable advanced cancers of the biliary tract (gallbladder and bile duct), compared with gemcitabine treatment alone. Biliary tract cancers are rare and very difficult to treat. Advanced biliary tract cancer had no effective treatment to date.

"Based on these findings, we can now establish the first-ever standard of care for advanced biliary tract cancers. We found that adding cisplatin to gemcitabine therapy significantly slowed cancer progression and extended survival for these rare but hard-to-treat cancers," explained lead author Juan Valle, senior lecturer and medical oncologist at the University of Manchester in the United Kingdom and the Christie NHS Foundation Trust in Manchester. "Previous smaller studies supported these findings, but our study is the largest and most reliable study of patients with this cancer to ever be reported."

In this phase III National Cancer Research Network study, funded by Cancer Research UK and conducted by the UCL Cancer Trials Centre, investigators randomized 410 patients in the United Kingdom with inoperable metastatic biliary tract cancers to receive either a combination of gemcitabine and cisplatin (206 patients) or gemcitabine alone (204 patients). They found that progression-free survival was longer among patients who received gemcitabine plus cisplatin (8.5 months) compared with those who received gemcitabine alone (6.5 months). Patients who received both drugs also lived significantly longer: 11.7 months versus 8.2 months.

Gemcitabine plus cisplatin was generally well tolerated. The most common side effect was moderate neutropenia (low white blood cell count), occurring in 22.6 percent of patients receiving both drugs and 17.9 percent of those receiving gemcitabine alone, although this was mostly asymptomatic.

**Ten Percent of Patients in Cancer Clinical Trials Concerned About Paying for Prescription Drugs**

Researchers report that 10 percent of patients receiving chemotherapy for colon cancer in a clinical trial were worried about paying for their required supportive medications, which can include drugs to manage chemotherapy side effects, antibiotics and/or pain medications. While most patients said they did not experience anxiety about paying for their prescription drugs and generally did not adopt strategies to help pay for these drugs—such as not filling prescriptions, skipping doses or taking less than the recommended dose—they also reported that they rarely discussed this issue with their physicians.

"Although the ability to afford medication was not a major concern for clinical trial participants, few patients report that their doctors discuss the cost of prescription medications. For this reason, if cost is a particular concern, it is important that patients and families communicate this to their doctors early on. There may be options that can help alleviate some of the cost burden," said lead author Deborah Schrag, associate professor of medicine at Harvard Medical School. "We were pleased to find that most clinical trial participants did not encounter hardship. However, in the current economic climate, with more people becoming uninsured or underinsured while the cost of prescription drugs rises, we could witness growing anxiety among cancer patients about their ability to pay for medications that may help them adhere to their therapy. In particular, this study raises the concern that patients treated outside the context of a research study may have a harder time affording their supportive care medicines, and this is one factor that may contribute to outcome differences in clinical trial versus non-research settings."

In this study, Schrag and colleagues surveyed 409 patients with metastatic colorectal cancer who were receiving bevacizumab (Avastin) and/or cetuximab (Erbitux) as part of a National Cancer Institute sponsored phase III clinical trial and who were required to also take prescription drugs for supportive care (such as drugs for nausea and vomiting, and other frequently prescribed antibiotics and pain medications).

The cost for bevacizumab and cetuximab, two traditionally high-cost therapies, were covered by the clinical trial.

Researchers examined whether anxiety over cost prompted patients in clinical trials to adopt moneysaving strategies that could be detrimental to their overall cancer care.

Key findings of the study included:

—Overall, 10 percent of patients were very worried about paying for their supportive medications.

—Less than 15 percent of patients adopted a money-saving strategy during the first three months of the trial, such as not filling a prescription, taking less than the recommended dose, or cutting back on other costs to pay for medications.

—Fifteen percent of patients did not have prescription drug coverage; these patients were more likely to report using a money-saving strategy.

—Only 12 percent of patients reported discussing the cost of medications with their physicians.

*Head & Neck Cancer:*

## HPV Vaccination For Boys Would Prevent More Cancer

(Continued from page 1)

only 70 have been described so far, explains Popat. Some HPV viruses, including 16 and 18, are transmitted sexually—not just through sexual intercourse, but through any skin-to-skin contact involving the mouth, vagina, vulva, penis, anus, or fingers.

HPV 16 and HPV 18 were previously identified as the cause of most cases of cervical cancer in the U.S. HPV has also been implicated in the development of some cancers of the vulva, vagina, anus, penis, and perineum.

There is no cure for HPV, just as there is no cure for the common cold. In most people, an HPV infection will clear up on its own, but it can be passed on to other people during the infection period—just as with the common cold.

In some cases, the person may continue to be infected for decades without any symptoms. During that time, the infected person can infect others without knowing it. Over time, this "silent," chronic HPV infection increases the risk of developing certain cancers.

In 2006, the FDA approved the use of Gardasil, a vaccine that protects against HPV 6, 11, 16 and 18, for females between the ages of 9 and 26, to help prevent cancers of the cervix, vulva, and vagina, as well as genital warts.

The FDA has not approved the vaccine for males. The issue of extending approval to males to protect against HPV related cancers is under review, with a decision expected in June 2009.

Loree, Popat, and their RPCI colleagues see compelling evidence for extending the vaccine's protection to boys. "The side effects of the vaccine are so small, and the potential benefits are great," Popat said. He notes that patients with throat cancer "have to undergo major treatment lasting several months, with an additional four to six months of recovery. Their ability to speak and swallow is affected. Generally, they do very well; however, it is a long, challenging road."

Based on the evidence to date, Loree said that "with increased vaccination against HPV, you'll see a decrease in cervical cancer and in throat cancers." If everyone stopped smoking and using tobacco in any form, and also got vaccinated against HPV, "we could eliminate head and neck cancers, and I'd be out of business."

The American Cancer Society estimates that 35,310 new cases of oral and oropharyngeal cancer are diagnosed every year—25,310 of those in men—and 7,590 people, including 5,210 men, die of those cancers. Smoking, the use of chewing tobacco, and heavy alcohol use remain the leading causes of cancers of the head and neck.

Roswell Park experts discuss the link between HPV and throat cancer here: http://www.roswellpark.org/hpv.

*FDA Approvals:*

## Avastin Approved To Treat Progressive Glioblastoma

The U.S. Food and Drug Administration granted accelerated approval to bevacizumab injection (Avastin, Genentech Inc.) as a single agent for patients with glioblastoma, with progressive disease following prior therapy.

The approval was based on demonstration of durable objective response rates observed in two single-arm trials, AVF3708g and NCI 06-C-0064E.

AVF3708g was an open-label, multi-center, randomized trial of patients with previously treated glioblastoma. Patients received bevacizumab (10 mg/kg IV) alone or bevacizumab plus irinotecan every 2 weeks until disease progression or unacceptable toxicity was noted. All patients received prior radiotherapy and temozolomide. Patients completed radiotherapy at least 8 weeks prior to receiving bevacizumab. Patients with active brain hemorrhage were excluded. Only efficacy data from the bevacizumab monotherapy arm (N=85) was used to support drug approval.

The efficacy of bevacizumab was demonstrated using response assessment based on WHO radiographic criteria. In addition, all responding patients must have had stable or decreasing corticosteroid use. Responses were observed in 25.9% (95% CI: 17.0%, 36.1%) of the patients. Median response duration was 4.2 months (95% CI: 3.0, 5.7 months). Radiologic assessment was performed using MR imaging (T1 and T2/FLAIR). MRI does not necessarily distinguish between tumor, edema and radiation necrosis.

NCI 06-C-0064E was a single arm, single site study of bevacizumab for the treatment of patients with previously treated gliomas. The study enrolled 56 patients with glioblastoma. All patients had documented disease progression after receiving temozolomide and radiation therapy. Patients received bevacizumab (10 mg/kg IV) every 2 weeks until disease progression or unacceptable toxicity was noted.

The objective response rate from the NCI 06-C-0064E study was 19.6% (95% CI: 10.9%, 31.3%), using the same response criteria as in AVF3708g. Median response duration was 3.9 months (95% CI: 2.4, 17.4).

Safety data was provided for study AVF3708g. In patients receiving bevacizumab monotherapy, the most frequently reported adverse events of any grade were infection, fatigue, headache, hypertension, epistaxis, and diarrhea. Bevacizumab was discontinued due to adverse events in 4.8% of patients. Two deaths (one retroperitoneal hemorrhage and one neutropenic infection) were possibly related to bevacizumab.

Grade 3-5 bevacizumab-related adverse events included bleeding/hemorrhage, CNS hemorrhage, hypertension, venous and arterial thromboembolic events, wound-healing complications, proteinuria, gastrointestinal perforation and reversible posterior leukoencephalopathy (RPLS). The attribution of certain adverse events (e.g., CNS hemorrhage, wound healing complications, and thromboembolic events) to either bevacizumab, underlying disease status or both cannot be determined due to single arm, non-comparative study design.

*Supportive Care:*

## Home-Based Program Helps Older Cancer Survivors

A home-based program aimed at improving exercise and diet can lead to meaningful improvements in physical function among older long-term cancer survivors, according to the results of a study led by researchers from Duke University Medical Center and The University of Texas M. D. Anderson Cancer Center.

The findings were published in the May 13 issue of the Journal of the American Medical Association. The study was funded by NIH.

"We know that when people are diagnosed with cancer they're at risk for co-morbid conditions and functional decline, and those over 65 may become debilitated permanently, increasing health care costs and taking a toll on family members," said Wendy Demark-Wahnefried, a professor in M. D. Anderson's Department of Behavioral Science and senior investigator on the study.

Miriam Morey, a researcher in the Duke Center for Aging and at the Durham Veterans Affairs Medical Center, and lead investigator on the study, said "our study showed that by reaching out to older cancer survivors in their homes and giving them tools to improve diet and exercise, we were able to reduce the rate of functional decline in this population."

The research team identified 641 study participants who were considered overweight or obese—having a body mass index of 25 or greater—and who had been diagnosed with breast, colorectal or prostate cancer but had been treated and had not experienced a recurrence for five years or more. The participants also had no medical conditions that would have prohibited moderate exercise.

A control group of 322 participants were told to go about their normal routines with no intervention, with the promise that they would receive access to the program one year later.

The remaining 319 received 15 telephone counseling sessions with a personal trainer throughout the intervention year, and worked toward establishing several daily goals, including performing lower body strength exercises; walking 30 minutes; using portion-control plates, cups and bowls; consuming fewer than 10 percent of calories from saturated fat; and eating more

fruits and vegetables.

Participants also received a personally-tailored workbook and a series of quarterly newsletters designed to help them maintain their exercise and diet routines.

"We found that the intervention group had higher levels of physical function, such as going up and down stairs, stepping on and off a stool, or running a short distance," said Morey.

## NCI Cooperative Group Clinical Trials Approved

The National Cancer Institute Cancer Therapy Evaluation Program approved the following clinical research studies last month. For further information, contact the principal investigator listed.

**Phase I**

8282 A Phase 1 Study of Chronically-Dosed, Single-Agent ABT-888 in Patients with Either BRCA 1/2 -Mutated Cancer; Platinum-Refractory Ovarian, Fallopian Tube, or Primary Peritoneal Cancer; or Basal-Like Breast Cancer. University of Pittsburgh, Puhalla, Shannon L., (412) 641-5792.

8283 A Phase I, Dose-Escalation Study of the Safety, Tolerability and Pharmacokinetics of Intravenous Dimethane Sulfonate in Advanced Malignancies. National Cancer Institute, Bates, Susan Elaine, (301) 402-1357.

8357 Dose-Intensive Chemotherapy in Combination with Chemoprotected Autologous Stem Cells for Patients with Malignant Gliomas. Fred Hutchinson Cancer Research Center, Kiem, Hans Peter, (206) 667-4425.

ADVL0911 A Phase 1 Dose Escalation Study of Seneca Valley Virus, A Replication-Competent Picorna Virus, in Relapsed/Refractory Pediatric Patients with Neuroblastoma, Rhabdomyosarcoma, Ewing Family of Tumors and Rare Tumors with Neuroendocrine Features. COG Phase I Consortium, Burke, Michael James, (612) 625-0032.

**Phase I/II**

N0872 Phase I/II Study of Dasatinib/Bevacizumab in Recurrent Glioblastoma. North Central Cancer Treatment Group, Galanis, Evanthia, (507) 284-3559.

**Phase II**

ABTC-0901 An Open Label, Phase 2 Study Evaluating the Safety and Efficacy of IMC-3G3 or IMC-1121B in Patients with Recurrent Glioblastoma Multiforme. Adult Brain Tumor Consortium, Blakeley, Jaishri O'Neill, (410) 955-8837.

ACOSOG-Z1071 A Phase II Study Evaluating the Role of Sentinel Lymph Node Surgery and Axillary Lymph Node Dissection Following Preoperative Chemotherapy in Women with Node Positive Breast Cancer (T1-4, N1-2, M0) at Initial Diagnosis. American College of Surgeons Oncology Trials Group, Boughey, Judy C. Szemere, (507) 284-8392.

ACRIN-6684 Multicenter Phase II Assessment of Tumor Hypoxia in Glioblastoma Using 18F-Fluoromisonidazole with PET and MRI. American College of Radiology Imaging Network, Sorensen, Alma Gregory, (617) 726-3914.

E1508 A Randomized Phase II Study of Cisplatin and Etoposide in Combination with Either Hedgehog Inhibitor GDC-0449 or IGF-1R MOAB IMC-A12 for Patients with Extensive Stage Small Cell Lung Cancer. Eastern Cooperative Oncology Group, Belani, Chandra P., (717) 531-1078.

GOG-0186G A Phase II Randomized, Double-Blinded Evaluation of Oral Everolimus Plus Bevacizumab vs. Oral Placebo Plus Bevacizumab in the Treatment of Recurrent or Persistent Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer. Gynecologic Oncology Group, Tew, William P., (212) 639-6555.

GOG-0229I A Phase II Evaluation of Brivanib, an Oral, Multitargeted Growth Factor Tyrosine Kinase Inhibitor in the Treatment of Recurrent or Persistent Endometrial Carcinoma. Gynecologic Oncology Group, Powell, Matthew A., (314) 362-1764.

GOG-0260 A Phase II Evaluation of Elesclomol and Weekly Paclitaxel in the Treatment of Recurrent or Persistent Platinum-Resistant Ovarian, Fallopian Tube or Primary Peritoneal Cancer. Gynecologic Oncology Group, Monk, Bradley J., (714) 456-7974.

N0747 A Randomized Phase II Trial of Sunitinib Plus Capecitabine Versus Capecitabine Alone (with the Potential for Crossover) for Elderly and/or Poor Performance Status Patients with Metastatic Adenocarcinoma of the Esophagus or Gastroesophageal Junction. North Central Cancer Treatment Group, Jatoi, Aminah, (507) 204-4918.

RTOG-0539 Phase II Trial of Observation for Low-Risk Meningiomas and of Radiotherapy for Intermediate- and High-Risk Meningiomas. Radiation Therapy Oncology Group, Rogers, C. Leland, (801) 350-8400.

**Phase III**

N0577 Phase III Intergroup Study of Radiotherapy versus Temozolomide Alone versus Radiotherapy with Concomitant and Adjuvant Temozolomide for Patients with 1p/ 19q Codeleted Anaplastic Glioma. North Central Cancer Treatment Group, Jaeckle, Kurt A., (507) 284-2511.

RTOG-0825 Phase III Double-Blind Placebo-Controlled Trial of Conventional Concurrent Chemoradiation and Adjuvant Temozolomide Plus Bevacizumab Versus Conventional Concurrent Chemoradiation and Adjuvant Temozolomide in Patients with Newly Diagnosed Glioblastoma. Radiation Therapy Oncology Group, Gilbert, Mark R., (713) 792-4008.

**Other**

GOG-8010 Genome-Wide Association Study (GWAS) for Modifiers of Breast Cancer Risk in BRCA2 Mutation Carriers: Breast Cancer Protective Alleles by Whole Genome Association and Copy Number Analysis. Gynecologic Oncology Group, Greene, Mark H., (301) 594-7642.