

September 27, 2007



Ms. Tami Longaberger
The Longaberger Company
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Dear Ms. Longaberger,

We are pleased to send you the enclosed progress reports from the seven American Cancer Society investigators currently supported by the The Longaberger Company. During the past year, Drs. Andersen, Feingold, Kwan, Rosenberg, Sevick-Muraca, Shih and Witte have made significant progress in their research as seen by their accompanying list of peer-reviewed journal articles in the individual progress reports. These research achievements would not have been possible without the generosity and longtime support of The Longaberger Company.

Barbara Andersen, PhD, Ohio State University, continues her work on the first longitudinal, controlled study of the biological (stress hormones, immune status) and behavioral (mood, pain, fatigue, appetite and sleep problems) aspects of breast cancer recurrence. The study has shown that patients' stress was "compartmentalized" and did not, at least in the early weeks after a recurrence was diagnosed, result in diffuse emotional distress and quality of life disruption, underscoring the resilience of patients when confronted with cancer recurrence. Despite disruption, patients maintained their sexual lives. Younger and distant recurrence patients, however, may have increased risk of sexual disruption. The factors contributing to sexual disruption remain unknown, and studies investigating strategies to help patients maintain this aspect of quality of life are planned. Dr. Andersen's work has also shown that positive strategies for coping with their recurrence gave women feelings of inner peace and meaning, whereas the absence of such strategies resulted in loss of meaning and confusion. This mind-body perspective is the cutting edge of quality of life research for cancer patients.

David Finegold, MD, University of Pittsburgh, PA, is looking for ways to identify women at risk of developing lymphedema before they go in for surgery, so that such women can be counseled accordingly. He hypothesizes that susceptibility to lymphedema depends not only on the trauma caused by treatment but also on underlying genetic variation. He plans to test this hypothesis by comparing the rates of lymphedema in relatives of women who developed secondary lymphedema following treatment for breast cancer with relatives of women who underwent similar treatments but did not develop lymphedema. Dr. Finegold has acquired all of the critical equipment needed and has engaged the Clinical Translational Research Center at the Magee Women's Hospital to become the base of his study. Unfortunately, a key member of the research team has left the area, so that the project will be delayed until a replacement is hired.

Marilyn Kwan, PhD, Kaiser Foundation Research Institute, Oakland, CA, is using the Longaberger-American Cancer Society funding for an ancillary study to the Kaiser Permanente

National Cancer Institute-funded study "Pathways: A Study of Breast Cancer Survivorship." With these additional funds, she will analyze data on arm measurements and lymphedema symptoms collected from these patients. They currently have baseline and six month follow up data, and will begin the collection of 18 month follow up data in July 2007, with the first data analysis scheduled for Fall 2007. This study will provide unique prospective data on a large group of breast cancer survivors and is the first study of its kind.

Eva Sevick-Muraca, PhD, Baylor College of Medicine, Houston, TX, is developing new methods for imaging lymphatic function as a means towards understanding post-surgical lymphedema, which affects 3-5 million people in the developed world. She has determined the optimal dose of IC-Green, a non-specific dye to use in near infrared optical imaging (NIR) to visualize the flow of lymph. As a result of this success, she and her collaborators have built two lymph imaging scanners for imaging the limbs of both normal controls and patients with lymphedema. Once she understands lymphatic function in health and disease, she will proceed to assess lymphatic function in the arms of breast cancer patients undergoing axillary lymph node removal to determine if she can predict which patients will be at risk for developing lymphedema.

Robert Rosenberg, MD, University of New Mexico, Albuquerque, NM, representing the New Mexico Mammography Project (NMMP), is working with other members of the Breast Cancer Surveillance Consortium (BCSC) to improve mammography interpretation by radiologists. There is significant variation in radiologists' accuracy in interpreting mammograms, and there are currently no validated tests to predict the accuracy of radiologists. The BCSC is a resource that has documented performance outcomes of many radiologists in the community, as they have linked mammography results from community radiologists to regional tumor registries for ten years. The NMMP has recruited and surveyed ~20 radiologists for mammography experience, education, and attitudes; the survey results are being processed. A test of mammographic interpretation is being developed, and the NMMP will help pilot the test when it is available.

Ya-Chen Tina Shih, PhD, University of Texas M.D. Anderson Cancer Center, Houston, TX, is studying the current clinical management of breast cancer-related lymphedema to measure the burden of the condition on working American families. Thus far, Dr. Shih and her colleagues have found significant discrepancies in the data obtained by two methods to estimate costs: the case-control approach said the annual cost was \$8500, whereas the clinical model approach gave a value of \$1800 per patient. They are not trying to find the reason for these discrepancies by running more analyses; either the control groups were not well-matched in the case-control method or important clinical events were not captured in the clinical model approach. In the coming year, Dr. Shih will also examine the impact of BCRL on work productivity of patients and their families as well as assess the association of BCRL with psychological distress in patients and their families.

Marlys H. Witte, MD, University of Arizona, has successfully refined a small animal model that reproduces breast cancer treatment-related lymphedema after surgery and radiation therapy. She has also developed additional animal models to produce stable sub-acute chronic lymphedema and is in the process of testing several different treatment options for their ability to prevent or reduce lymphedema. Using the animal model, Dr. Witte has found that massage

effectively reduces the volume of lymphedema, as well as a dietary supplement that may be helpful in reducing swelling. She has also identified a compound that appears to minimize post-irradiation lymphedema and bone damage in a rat model. These results have been made available through publication in peer-reviewed journals and presentations at scientific meetings so that clinical researchers can translate them to the clinic.

In addition to the Longaberger-supported grantees above, the American Cancer Society also able awarded four new projects that began August 1, 2007, all on the topic of "Assessing and Improving Radiologists' Interpretive Skills." The awards went to:

Diane Buist, PhD, MPH, Group Health Center for Health Studies, Seattle, WA

Berta Geller, University of Vermont, Burlington, VT

Karla Kerlikowske, University of California, San Francisco

Bonnie Yankaskas, University of North Carolina, Chapel Hill

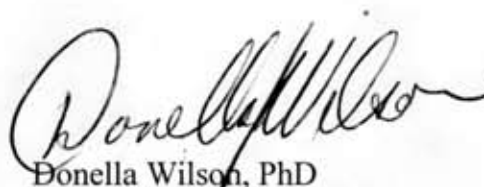
Their grant profiles are attached. We look forward to sending you the progress reports on these grants next year.

The American Cancer Society is extremely grateful for your contributions to our research program over the years. In addition to the above-mentioned published scientific contributions of the researchers funded through your gifts, these scientists have also delivered oral presentations on their work to both scientific and lay audiences. They have become involved in the wider activities of the American Cancer Society in the fight against breast cancer. Your generous support is making a tremendous difference, one victory at a time, in the battle against this dreaded disease. Thank you again for all you have done and your continued commitment to the American Cancer Society.

Sincerely,



John Stevens, MD
Vice President for Extramural Grants



Donella Wilson, PhD
Director, Research Promotion and
Communication

Enclosures

Andersen's Annual Progress Report
Finegold's Annual Progress Report
Kwan's Annual Progress Report
Sevick-Muraca Annual Progress Report
Shih's Annual Progress Report
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Buist's Grant Profile Information

Carney's Grant Profile Information
Geller's Grant Profile Information
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Rosenberg's Annual Progress Report
Yankaskas' Grant Profile Information
Research and Training Program Report 2006
Conquering Cancer brochure

cc American Cancer Society, Inc.

Margaret Offermann, MD, PhD, Deputy National Vice President, Research
Ronit Elk, PhD, Scientific Program Director
William Phelps, PhD, Scientific Program Director
Lynne Ayres, Ohio Division Research Liaison
Daneen Baird, Pennsylvania Division Research Liaison
Emilia Jankowski, California Division Research Liaison
Shelley Summers-Karn, High Plains Division Research Liaison
Robert Smith, PhD, Cultivator
Carol Roder, Great West Division Research Liaison
Karen Rouse, New England Division Research Liaison
Karen Babb, South Atlantic Division Research Liaison