

Complementary Medicine Study Aims to Help Cancer Patients

COMPLEMENTARY THERAPIES OUTSIDE OF CONVENTIONAL MEDICAL CARE have always been a part of the American healthcare system, however they have not always been widely accepted. Yale Cancer Center seeks to offer these options to its patients with the institution of a newly funded initiative to integrate complementary medicine into patient care.

Complementary alternative healthcare and medical practices (CAM) are those healthcare and medical practices that are not currently considered part of conventional medicine. CAM practices can be grouped into five major domains: (1) alternative medical systems, (2) mind-body interventions, (3) biologically based treatments, (4) manipulative and body-based methods, and (5) energy therapies. Yale Cancer Center is fortunate to be given the opportunity to begin offering some of these modalities to its patients.

“The institutions of a complementary medicine program at Yale Cancer Center is another wonderful way to help patients access resources they would like to try and need to obtain more effective integrated care,” Bonnie Indeck, Director of Patient Services at Yale Cancer Center, explained.

Reverend Albert Neilson has generously agreed to fund a two-year project developed to determine the efficacy of four different complementary interventions to be offered to patients in the outpatient clinic of Yale Cancer Center. *The Julie Hopkins Neilson Project* is named in honor of Reverend Neilson’s late wife who died of cancer in 1997. Reverend and Mrs. Neilson had attended the Commonweal Cancer Help Program during her treatment from cancer, a complementary program co-founded by Drs. Rachel Remen and Michael Lerner in 1985.

Reverend Neilson began supporting CAM at Yale Cancer Center in April 2001 by sponsoring a two-day visit for Dr. Remen focusing on the art of healing, which included lectures, book signings, and a Brown Bag Luncheon open to the public. Dr. Remen’s emphasis on a nurturing environment, self-exploration, and choices in cancer therapies has led Reverend Neilson to fund the complementary medicine study at Yale Cancer Center.

“Many people feel as though they are on death row after being diagnosed with cancer. After attending the Commonweal program, my wife and I reflected on the experience as a transformative program. It made an immense difference in our outlook and allowed us to live the rest of our life together with quality. My goal is to help to further complementary medicine, to bring

[continued on page 2](#)



Left to right Denni Edlund, Project Coordinator, Bonnie Indeck, Director of Patient Services, Reverend Neilson, Dr. Vincent T. DeVita, Jr., Director of Yale Cancer Center, and Eileen Cain, Manager of Adult Social Work at YNHH



The Breast Cancer Alliance, Inc. of Greenwich, CT held their sixth annual luncheon and fashion show on Friday, October 12, 2001. The event, which raised \$950,000 for breast cancer research, is the Alliance’s largest event. A record \$1 million dollars was allocated from the Alliance for grants and fellowships in 2001. *Please see accompanying stories on page 5.*

Left Jane Weyl, President of the BCA and Jim Waterman, member of the Board of Advisors. **Below** Cecile McCaull, Carol Santora, Pam Farr, Jane Weyl, Brook Urban, and Kenny Mettler.



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Researchers Design a Molecule to Destroy Metastatic Tumors

YALE CANCER CENTER researchers Alan Garen and Zhiwei Hu have developed a new method to destroy tumors using a molecule they named "Icon." In experiments with a mouse model of human cancer, they demonstrated the ability of the Icon to kill metastasized tumors by destroying their blood vessels. Garen and Hu began research on the Icon molecule four years ago, and their findings have recently been published in three articles in the *Proceedings of the National Academy of Sciences*.

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"All types of solid tumors containing blood vessels should be susceptible to the Icon, and therefore could be targets for destruction," said Garen.

An Icon molecule is a combination of Factor VII, a natural molecule circulating in the blood, and Fc, a region of natural antibodies that causes the breakdown of the cells that bind the antibody by activating the body's immune system to attack those cells. Because Tissue Factor, a transmembrane molecule that is found on the surface of cells lining the tumor blood vessels and also on tumor cells, and Factor VII form one of the strongest bonds known, Garen and Hu decided to target Tissue Factor as a receptor site for the Icon. They encoded the Icon in an adenovirus vector that was injected directly into a tumor. The tumor cells infected by the vector synthesize and secrete the Icon into the systemic circulation, and the Icon finds and destroys the blood vessels of tumors located anywhere in the body, resulting in death of the tumor cells. Because Icon is created with the organism's own molecules and only targets Tissue Factor in tumors, there is no threat to normal tissue.

"The Icon promises to be an effective therapeutic agent for metastatic cancer, because it binds with exceptionally high affinity and specificity to the pathological blood vessels in virtually all types of solid tumors, resulting in the destruction of the tumor vasculature and the tumor. Much remains to be done before we will know," Garen explained.

These studies were conducted using mice carrying human melanoma or prostate tumors. The mice injected with Icon were free of tumor tissue as long as 194 days after

the start of the experiment, in contrast to the control mice that were not treated with Icon and died within 63 days.

Dr. Albert Deisseroth, former Chief of Medical Oncology at Yale Cancer Center and currently President of the Sydney Kimmel Cancer Center in San Diego, CA, is arranging for clinical trials of the Icon with melanoma and prostate cancer patients.

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a small part of the Commonweal experience to the patients at Yale Cancer Center," said Reverend Neilson.

Massage Therapy was instituted in the clinics at Yale Cancer Center in 1999 beginning the Center's recognition of complementary therapies. Gisela Boxleitner, owner of the Milford Therapeutic Massage Center, spends one day a week at Yale giving therapeutic massages to cancer patients. The enthusiastic consensus of many of the oncology nurses is that patients feel relief from the massages and have scheduled subsequent appointments as a result.

"Patients look forward to their massage therapy; it helps them pass treatment time and diverts their attention away from the stress and pain associated with cancer," explained Kelly Stepczyk, RN, OCN, a nurse in the outpatient clinic, supporting the argument for complementary therapy.

Massage therapy is used to help release chronic muscular tension and pain, improve circulation, increase joint flexibility, reduce mental and physical fatigue, and ease stress. Cancer patients often feel a decrease in their level of pain and are able to sleep better after receiving a massage; the ability to manage the pain is often an essential goal in cancer treatment and therapy. Ms. Boxleitner often uses reflexology on patients who are in more critical condition. Reflexology stimulates the nerve endings in the foot, all of which correspond to different parts of the body giving the patient pain relief where necessary.

After one twenty-minute massage therapy appointment, one patient said she felt like a weight had been lifted. "It was so relaxing and a wonderful stress reliever for me," she continued. *The Julie Hopkins Neilson Project* will expand complementary medicine at Yale Cancer Center to include several types of therapy in addition to the successful massage treatment already offered.

Patients enrolled in the project will be given various options for complementary medicine including: acupuncture, reiki, massage, and visualization or guided imagery. Patients will be divided into groups and evaluated using both a symptom and physical inventory before the treatments begin and following their eight weeks of therapy. The objective of the study is to help cancer patients reduce

feelings of stress, increase bodily comfort, and decrease pain due to anxiety and the stress related to cancer diagnosis and necessary conventional treatments for the disease.

The project has been framed to take two years to complete and will conclude with comparisons of patients' inventories in an effort to discover solid documentation of how these therapies should be incorporated into treatment of the "whole patient" rather than sole concentration on the eradication of their cancer.

"The nurses and social workers in the Oncology Clinic are extremely excited to be able to offer these therapies with the help of Reverend Neilson's gift. Several cancer centers have built complementary medicine programs and we are delighted that we have the beginning of a program at Yale Cancer Center and the ability to scientifically look at the patients' response to the therapies and subsequently build a case for increased complementary care at Yale," stated Eileen Cain, LCSW, and Manager of Adult Social Work Services at Yale-New Haven Hospital.

Upon completion, organizers of the project hope to obtain additional funding from both public and private sources in an effort to continue and build an effective complementary medicine program for all patients in the Center's Oncology Clinics. Using the results of *The Julie Hopkins Neilson Project* as a testimony of the benefits of complementary medicine in cancer treatment, they anticipate a growing effort and support of complementary medicine throughout the Cancer Center.

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Fashion Show to Benefit Yale Cancer Center

CAPTIVA A SALON AND HAIR CLUB SALON will host their third annual fall fashion show titled, *That's What Friends Are For*, on Sunday, March 3, 2002 at the Aqua Turf Club in Plantsville, CT. The show, featuring fashions for men, women, and children, will begin at 11:00 AM. Tickets, which include a gala brunch, are \$40 for adults and \$25 for children 10 and under.

Mario and Laura Landino, co-owners of the two salons, began the fashion show fundraiser in 1998 in response to the increased diagnosis of cancer among their friends and clients. Thus far, the Landinos have donated over \$35,000 to area cancer organizations and aim to increase that amount this year.

"Hair Club Salon is one of the largest wig centers in the area, because of this we see many clients who have been affected by cancer. The employees of Captiva A Salon and Hair Club Salon have once again joined together to donate their time and services to raise funds to help support the efforts of Yale Cancer Center; we hope our contribution will help in winning the battle against this deadly disease," Laura Landino said.

The show will feature clothes from Retro in Branford, CT,



Organizers of the fashion show, Mario and Laura Landino and Brenda Joslyn.

Twinkle, Twinkle Little Star, A Children's Boutique in Durham, Pietro's in Meriden, Dynamite Design in Wallingford, and Talbots of Hamden. Sponsored by Executive Auto Group, all proceeds will benefit programs and research at Yale Cancer Center.

For tickets and information, please call Allison McConomy at (203) 737-2439, Laura Landino at Hair Club Salon at (203) 269-0636, or Brenda Joslyn at Captiva A Salon at (203) 284-0580.



Vincent T. DeVita, Jr., M.D., Director of Yale Cancer Center, presented Dr. Joseph F. Fraumeni, Jr., M.D. with the Amgen Visiting Professorship Award, on November 20, 2001. Dr. Fraumeni was recognized for his contributions, "elucidating the interaction of genetic and lifestyle factors on the etiology of cancer." He currently serves as Director of the Division of Cancer Epidemiology and Genetics at the National Cancer Institute. Fraumeni spoke at Yale Cancer Center's Grand Rounds following the award presentation addressing the topic, "Genes and the Environment in Cancer Etiology."

Yale Cancer Center congratulates (left-right) Alexandra Horoschak, Vanna Guario, and Seema Jolly who recently received their National Certification in Oncology Nursing. The Center offers study sessions for review of the test material through the Oncology Nursing Council and is proud to have over 20 nurses nationally certified.



Choate Rosemary Hall Students Plan Terry Fox Run to Benefit Yale Cancer Center

On the morning of Sunday, May 5, 2002, Choate Rosemary Hall, a coed boarding/day preparatory school in Wallingford, CT, will sponsor their second annual Terry Fox Run to benefit Yale Cancer Center. "This is an excellent opportunity to bring our community together, people of all ages, cultures, and backgrounds, and to help those who have suffered, or are currently suffering, from the devastating effects of cancer," organizer Omar Itum, a senior at Choate, enthused.

The Terry Fox Foundation sponsors runs throughout the world to raise funds for cancer research. In 1977, Terry Fox was diagnosed with bone cancer in his right knee. Although his leg was amputated, Terry pledged to run across Canada to raise money and awareness for cancer research on his *Marathon of Hope* journey. Terry's 1980 run raised \$24.17 million and to date the foundation has raised \$270 million worldwide. Terry died in June 1981, leaving a foundation working to "maintain the heroic efforts and integrity that Terry Fox embodied."

The students at Choate have initiated the plans and are coordinating the 5K run/walk in conjunction with several community service clubs, area public and private high schools, local churches, and the staff of Choate Rosemary Hall.

To Register for the Run:

Logon to www.choate.edu

Or call Charlotte Murphy at (203) 697-2252

To Donate to the Run:

(Please make checks payable to Choate Rosemary Hall, Terry Fox Run)

Charlotte Murphy

Director of Communications

333 Christian Street

Wallingford, CT 06492

P.R.O.D.D. Celebrates Graduates

Community



THE CANCER INFORMATION SERVICE at Yale Cancer Center and the Health, Emotion, and Behavior (HEB) Laboratory of the Department of Psychology recently graduated the final class of participants in their Project to Overcome the Digital Divide (PRODD). Parents of students enrolled in New Haven's Head Start programs participated in a six hour computer training class in an effort to decrease the information gap between those with and those without computer accessibility. The PRODD program was completed in conjunction with LULAC Head Start of New Haven, Urban Policy Strategies of New Haven, and Computers 4 Kids of Waterbury. A total of 120 parents graduated from the program, all receiving a free, refurbished, Internet-ready computer and a certificate of completion.

Left Nikinyia Cooke, New Haven resident and Graduate of P.R.O.D.D. **Left middle** Pam Williams, a Post-doc in the HEB Laboratory, Darlene Quiles, New Haven Resident and P.R.O.D.D. graduate, and Dr. Peter Salovey, Chairman of the Department of Psychology. **Left bottom** Gianna Livingston, Graduate. **Below** Michele Evans, Computer Trainer for the program, Jackie Boyles, a graduate of the program, with her niece, Dannasha Beverly, and Denni Edlund, Research Assistant in the HEB Laboratory.



HOLIDAY PARTY



Yale Cancer Center held their annual Patient and Family Holiday Party for those touched by cancer on Wednesday, December 5th. The party was attended by over 100 guests and allowed many current and former patients to visit with one another and their doctors and nurses. The Villore Fund donated the party in honor of the Yates family.

The Burger King Cancer Foundation (BKCF) of Metro New York, Inc. finished its annual giving program with donations totaling \$100,000 to New York area cancer programs. Yale Cancer Center was proud to receive \$20,000 to support cancer research and patient services from the foundation at their annual meeting in November. Robert Wallstein, President of the organization, presented their donation to Allison McConomy, Special Events Manager of Yale Cancer Center.



Breast Ductal Lavage Study Funded by Breast Cancer Alliance, Inc.

THE EMPHASIS ON EARLIER DETECTION of breast cancer has lead a group of Yale Cancer Center researchers to develop a new type of breast cancer marker. Directed by Bonnie L. King, Ph.D. in the Department of Therapeutic Radiology, researchers are working to decipher and analyze exfoliated breast cells in an effort to develop strategies for the diagnosis and management of pre-cancerous breast conditions. More than 95 percent of all breast cancers start in the lining of the milk ducts, but it usually takes many years before a routine mammogram or physical exam identifies the problem. By studying the exfoliated cells in the lining of the milk ducts, King hopes to be able to develop markers for malignant breast cells long before they become visible tumors.

Using ductal lavage, a procedure that involves inserting a narrow microcatheter device into a duct opening and flushing the duct with saline, researchers can harvest thousands of breast cells. In a recent multicenter clinical trial assessing ductal lavage, asymptomatic, high-risk women were evaluated for the detection of abnormal cells; 2/383 of the subjects were found to have cancerous cells, 90/383 subjects had atypical cells.

“At present we don’t know the clinical significance of atypical cells detected in ductal lavage specimens,” King said. Dr. King is hoping to determine which of the atypical cells are genetically programmed to progress to breast cancer.

Dr. King and her associates are using FISH (fluorescence in situ hybridization) analysis on atypical cell samples to find genetic alterations, which they hope to link to a predisposition for breast cancer. The current practice for examining atypical cells is to use

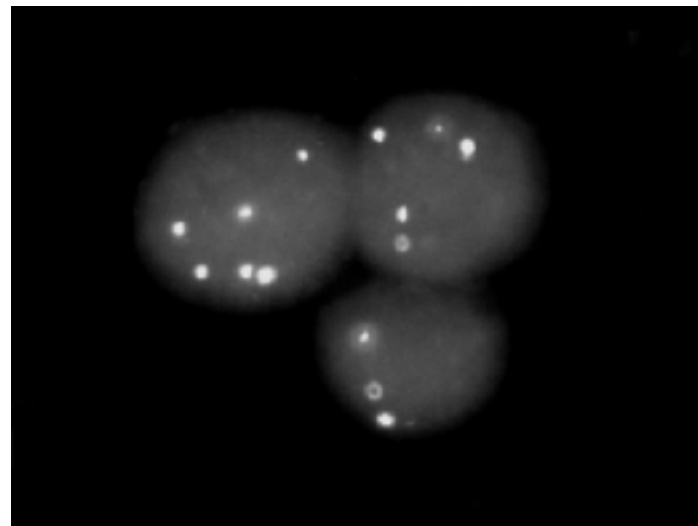
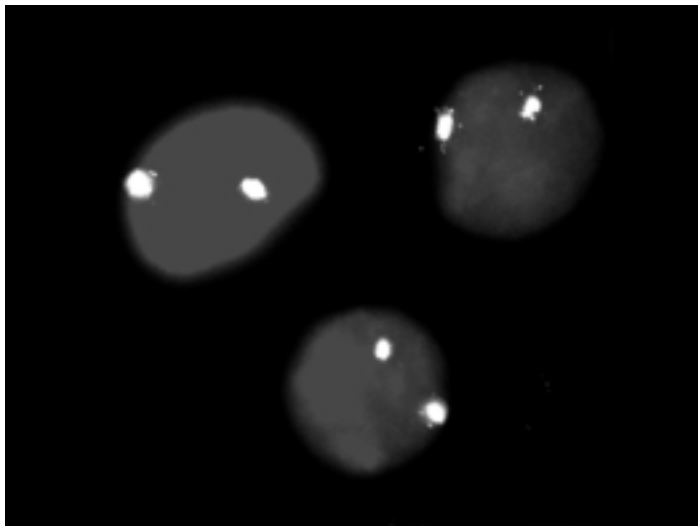
cytology, a subjective method dependent on a cytopathologist viewing the sample. Using DNA probes, FISH measures numerical chromosome changes by binding to complementary regions of DNA in the samples. Normal cells have two copies of each chromosome and will show two spots using FISH analysis. However if a cell has lost one copy of a chromosome or a gene that regulates against cancer development, or has gained copies of whole chromosomes or cancer genes, the number of spots that appear in the analysis will vary.

“Our goal is to develop a panel of FISH probes that will accurately predict the development of breast cancer when applied to atypical cell samples collected through ductal lavage,” Dr. King explained. Women who are identified as having atypical results using FISH probes on ductal lavage samples could then be placed under heightened surveillance and, if determined necessary, receive more thorough diagnostic testing for breast cancer.

Dr. King has received funding from the Breast Cancer Alliance, Inc., of Greenwich, CT to continue her work using ductal lavage and FISH analysis. “I am so thankful for the funding from the Alliance, which will go a long way in aiding our research. My hat is off to this group of women who have raised so much money to support breast cancer research efforts,” King said.

King’s project is in collaboration with Rogsbert F. Phillips, M.D. at Metro Surgical Associates in Decatur, Georgia and Bruce Haffty, M.D., Professor of Therapeutic Radiology, David L. Rimm, M.D., Ph.D., Associate Professor of Pathology, at Yale University School of Medicine.

Right The images at right depict normal and atypical breast cells as viewed using FISH analysis. It is clear that the normal cells on the left show two chromosomes each while the atypical cells on the right show multiple chromosomes. King is working to develop a panel of FISH probes that will accurately predict the development of breast cancer by detecting atypical cells, like those shown at right.



Researcher Focuses on Racial Disparities in Early Onset Breast Cancer

RACIAL DISPARITIES in the development of cancer is continually questioned and studied by researchers interested in determining both the risk factors and appropriate prevention strategies for cancer. Yale Cancer Center researcher, Bruce G. Haffty, M.D., Professor of Therapeutic Radiology, is seeking to establish racial differences in Early Onset Breast Cancer (EOBC) by focusing on mutations in the BRCA1 and BRCA2 genes in women with EOBC. Haffty is studying the frequency and spectrum of mutations in the two genes within three sectors of women: White women, African American women, and Korean women.

In an effort to compare gene mutations in the three groups of women with EOBC, 180 women are being recruited; approximately 60 women from each racial group will participate in the study. Using a computerized database all clinical, pathological, family history, and mutational data will be entered on each participant and then compared according to racial subset.

Dr. Haffty has received funding from the Breast Cancer

Alliance, Inc. of Greenwich, CT, the Donaghue Foundation, and the Patterson Trust Fund to support his study and help to defray the costs of genetic sequencing of the BRCA1 and BRCA2 genes in the women. “The necessary genetic sequencing is an extremely costly procedure, which would not have been feasible without funding from various outside organizations,” Dr. Haffty explained.

Comparing the genetic sequences of the three populations, Haffty is proposing that unique spectrums of mutations will become evident and reveal new information allowing scientists to customize early detection of breast cancer for each of the distinct racial populations. “The frequency of mutations in the two breast cancer genes among these distinct populations may help to explain differences in the presentation of disease in these populations and is likely to result in a better understanding of racial and ethnic differences contributing to Early Onset Breast Cancer,” Haffty said.

Haffty is hoping to conclude his study within the year and release his findings in early 2003.

Understanding Cancer: *A Lecture Series*

Sponsored by State Street Global Advisors

YALE CANCER CENTER, Yale-New Haven Hospital, and Yale University School of Medicine present *Understanding Cancer: A Lecture Series* for patients and their families living with cancer sponsored by State Street Global Advisors. The lectures are free and open to the public. A light supper will be served at 6:00 p.m., the lectures will begin promptly at 6:30 p.m.

Ellen Matloff, MS, Director of the Cancer Genetic Counseling Shared Resource at Yale Cancer Center will speak on March 13th focusing on the topic *Am I a Candidate for Cancer Genetic Counseling?*

On Wednesday, April 10th Dr. Dennis L. Cooper, Clinical Director of the Stem Cell Transplant Program and Associate Professor at the Yale School of Medicine will address the topic, *Managing Myeloma*, followed by a question and answer period.

The supper and lecture are free and validated parking is available. Please call (203) 688-2000 to make reservations and for directions to park in the Air Rights Garage.

Medicaid Coverage Extended

Taking advantage of the Federal Breast and Cervical Cancer Prevention and Treatment Act of 2000, Connecticut has extended Medicaid benefits to uninsured women who are diagnosed with breast or cervical cancer. Women who are screened through the National Breast and Cervical Cancer Early Detection Program run by the Centers for Disease Control and Prevention and found to need treatment for breast or cervical cancer will qualify for the free medical aid. The Early Detection program has screened more than 1.8 million women since it began in 1990.

For more information on this program please contact the State of Connecticut Medicaid Office at 1-800-842-1508 or <http://www.dss.state.ct.us/svcs/medical.htm>

UPCOMING EVENTS

March 3, 2002 Captiva A Salon and Hair Club Salon Fashion Show
Aqua Turf in Plantsville, CT, 11 a.m. – 3 p.m.
Brunch, Fashion Show, Silent Auction and Raffle
Contact: Allison McConomy (203) 737-2439

March 13, 2002 *Understanding Cancer: Second Wednesdays Lecture Series*
Ellen Matloff, M.S, Director of Cancer Genetic Counseling at Yale Cancer Center
Am I a Candidate for Cancer Genetic Counseling? 6:00 p.m.
For more information please call (203) 688-2000

April 10, 2002 *Understanding Cancer: Second Wednesdays Lecture Series*
Dennis L. Cooper, M.D., Clinical Director of the Stem Cell Transplant Program at YCC
Managing Myeloma 6:00 p.m.
For more information please call (203) 688-2000

April 20, 2002 *La Cassa Magica*,
The 3rd Annual Benefit for Yale Cancer Center
Country Club of Fairfield
Contact: Allison McConomy, (203) 737-2439

May 5, 2002 *Terry Fox Run*
sponsored by Choate Rosemary Hall
Choate Rosemary Hall
Contact: Allison McConomy, (203) 737-2439

Please check the Yale Cancer Center Calendar of Events frequently for new information at:
<http://info.med.yale.edu/ycc/ni02.htm>

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