Edelson Named Director of Yale Cancer Center

YALE UNIVERSITY SCHOOL OF MEDICINE Dean David A. Kessler, MD and Yale-New Haven Hospital President Joseph A. Zaccagnino have appointed Richard L. Edelson, MD as the new Director of the Yale Cancer Center effective July 1, 2003. Dr. Edelson will succeed Dr. Vincent T. DeVita, Jr., who is stepping down from his position as Director on June 30 after completing his second term. “Dr. Edelson has been selected to lead the Yale Cancer Center because he is a world-class clinical investigator, institutional leader and valued colleague,” Kessler said.

“I am honored to have the opportunity to direct Yale Cancer Center and to build on the strong foundation created by Dr. DeVita. With the support and investment of the Yale University School of Medicine and the Yale-New Haven Hospital the opportunities for the Center to expand and serve oncology patients throughout Connecticut are unlimited,” Dr. Edelson said.

Dr. Edelson is internationally acclaimed for his fundamental contributions to the study of Cutaneous T-Cell Lymphoma (CTCL), a disease caused by malignant T lymphocytes that affects the skin. His research group has played a central role in deciphering the basic biologic properties of CTCL cells, in delineating the pathogenesis of that serious malignancy, and in developing effective scientifically grounded therapies for it. Dr. Edelson and his research team were the first to successfully use anti-T cell antibodies in the treatment of a lymphoma and have recently demonstrated that CTCL is an antigen-driven malignancy.

Dr. Edelson devised and implemented the first FDA approved selective immunotherapy for any cancer, a treatment now referred to as transimmunization. Transimmunization has been administered worldwide to patients with Cutaneous T-

Yale Researcher Funded to Study Nutritional Biomarkers

YALE EPIDEMIOLOGIST, SUSAN MAYNE, PHD, has focused her career on identifying the role of nutrition in cancer etiology. This research area is challenging due to difficulties in assessing usual dietary intake in human studies. With the help of two recent grants, she is a step closer to identifying non-invasive methods of nutritional evaluation. This Spring, Mayne received $1 million in funding from the National Cancer Institute (NCI) to develop a non-invasive method to evaluate nutritional status by measuring carotenoid levels in human skin, and an additional $60 thousand from the Breast Cancer Alliance, Inc (BCA) to study the possible use of fatty acid profiles of nipple aspirate fluid as a biomarker of fat intake in relation to the risk of breast cancer. Biomarkers allow researchers to establish objective predictors of nutrition for studies of cancer and other diseases.

Because most nutritional epidemiology studies focus on people's recall of diet, the data can be suspect and is limited by measurement error. Mayne's focus on carotenoid levels in the skin will give solid evidence of fruit and vegetable intake; carotenoids are widely distributed in fruits and vegetables and absorbed following ingestion. This will allow further research to be done evaluating the risk of cancer and its association with the amount of fruits and vegetables consumed, using objective biomarkers.

Building on her twenty years of research on carotenoids, Mayne will be using a technique called Raman Resonance Spectroscopy to assess carotenoid levels in human skin. Dr. Werner Gellermann, a physicist from the University of Utah, developed the portable spectroscope. The spectroscope uses a light beam to excite the carotenoids in the skin and then measures the vibrational energy produced, allowing for a tangible reading of carotenoid levels to be determined in less than a minute. The study will compare the results of the carotenoid analysis done by spectroscopy with analysis of dietary intake, blood carotenoid concentrations, and eventually carotenoid concentrations in human skin biopsies to validate the use of the machine. Yale collaborators in this study include Drs. Brenda Cartmel, David Leffell, and Haiqun Lin.

The discovery of biomarkers of diet can better help researchers assess the role of diet in chronic disease, and help researchers interpret results of intervention studies aimed at improving diet. Also, the use of the raman spectroscopy promises rapid feedback and has great potential for positive reinforcement of healthy eating, with the ability for easy testing and re-testing for comparison of results.

With the assistance of the Breast Cancer Alliance, Inc., Mayne is also working with Dr. Brenda Cartmel to develop a non-invasive predictor of breast cancer using nipple aspirate fluid and subsequently evaluating its content for fatty acids. Researchers
Yale PET Scan Center
Helps to Pinpoint Diagnosis

PHYSICIANS AND PATIENTS ARE BENEFITING from better technology and increased services because of recent improvements in Yale’s PET Center, one of only two PET Centers in Connecticut. The newly acquired scanner at the PET Center offers the highest level of accuracy in diagnosing disease and will allow physicians to better pinpoint the location, size, and number of cancerous areas in a patient’s body. “The facility has been upgraded and revamped, we are here to provide the highest quality of care for our patients,” Center Director, Pradeep Garg, PhD, said.

Positron Emission Tomography (PET) Scans are relatively new in the field of oncology but have gained significant popularity in recent years. The scans provide the physician with an image of the entire body; each area of cancer is highlighted. Patients are given a tagged glucose injection (fluorodeoxyglucose) an hour prior to the scan. Because cancer cells metabolize sugars at a higher rate than healthy cells, bright spots are shown on the scans. “We are looking for a difference in sugar consumption by the tumor cells,” Clinical Director, David Cheng, MD, PhD, explained.

“The newly upgraded scanner represents an important clinical advancement for patients of Yale Cancer Center and the surrounding hospitals. It allows for whole body oncology and tumor imaging and also enables physicians to identify and diagnose the stage of both lymphomas and melanomas. Once the scan is completed, physicians are able to properly pinpoint cancerous areas. The precise anatomic localization of the tumor area can be located by combining the CT scan with the PET images. PET scanner manufacturers have recently developed a combination PET/CT scanner that will aid in streamlining the two advanced imaging modalities, PET and CT into one machine. Clinicians and the researchers at Yale are currently working to secure funds to acquire the combined scan and aim to acquire this new technology by the end of the year.”

“A PET Scan should be one of the first scans to be done to determine the treatment plan for an oncology patient.”

“A PET Scan should be one of the first scans to be done to determine the treatment plan for an oncology patient,” Cheng explained. Dr. Cheng serves as the Clinical Chief for the Center and reads all of the scans before sending the results to the ordering physician. Scans can also be read at Yale Medical Center via a computer that has been linked to the PET Center. Dr. Cheng was trained at Memorial Sloan-Kettering Cancer Center under Dr. Stephen Larson, where he gained significant experience reading up to thirty scans per day.

The Yale PET Center is the only center in the state with a cyclotron, the machine used in manufacturing the radiopharmaceuticals injected into the patient. The presence of a cyclotron at the imaging center allows clinicians and researchers to develop newer imaging tools for diagnostic applications in cardiology, neurology, and other areas. The cyclotron greatly enhances the ability for research and enables the development of newer and better radiopharmaceuticals. “It grants us flexibility in both the clinical and research domain that many other institutions are not able to offer,” Garg explained. Because Yale Cancer Center is both a clinical and research focused institution, the PET Center resources are used both for the clinical and research purposes.

“The researchers at the Yale PET Center have diverse interests, which include scanning patients with prostate cancer, neuro-receptor imaging, glucose consumption, and the effects of mental stress on cardiovascular patients. It is a multi-departmental research effort, involving researchers from the Departments of Radiology, Psychiatry, Internal Medicine, and several other areas who are performing research projects at the PET Center,” Dr. Garg said.

Kluger Focuses on Expanding the Melanoma Disease Unit

IN COLLABORATION WITH RESEARCHERS, SURGEONS, and the dermatologists both at Yale and in the community, Harriet Kluger, MD, is organizing a comprehensive program for patients who are diagnosed with melanoma. Dr. Kluger is a medical oncologist in the Yale Cancer Center where she has focused her efforts over the past year on the expansion of the melanoma disease unit for the Center.

The most serious form of skin cancer, melanoma arises in melanocytes, the cells that produce skin pigmentation. Each year more than 50,000 people are diagnosed with melanoma, this figure has more than doubled over the past fifty years making it one of the more common forms of cancer. The strongest risk factor for developing melanoma is sun exposure, particularly severe sun burns at an early age. Other risk factors that increase a person’s chances of developing the disease include: dysplastic nevi or atypical moles, fair skin, more than 30 moles on the body, a personal or family history of the disease, or a weakened immune system.

Since accepting a position as Assistant Professor of Medical Oncology at Yale School of Medicine last July, Kluger has opened some clinical trials for patients with stage II-III and advanced stage IV melanoma. She is currently in the process of opening a trial for accrual of patients with newly diagnosed stage IV melanoma, which would be a unique and novel therapy that will specifically target melanoma cells. Outside of the clinic, Dr. Kluger spends a significant portion of her time conducting research, both in melanoma and breast cancer. Currently, she is looking at molecular markers of poor outcome in breast cancer and melanoma. She has received the 2002 Donaghue Foundation Award for Women’s Health Research, the 2002 Swedilbus Award for Translational Research and the 2003 Susan Komen Foundation Award for Basic, Clinical and Translational Research.

For more information or to schedule an appointment with Dr. Kluger, please contact the Medical Oncology Clinic at (203) 785-4191 or contact her directly at harriet.kluger@yale.edu. For more information on the clinical trials open for melanoma patients, please contact the Clinical Trials Office at (203) 785-5702.
La Cassa Magica Honors Dr. Vincent T. DeVita, Jr.

YALE CANCER CENTER’S FOURTH ANNUAL GALA, La Cassa Magica, was held on Saturday, April 26th at the Country Club of Fairfield. Raising $360,000 to support clinical trial development at Yale Cancer Center, the benefit honored the Center’s Director, Dr. Vincent T. DeVita, Jr., who will be stepping down from his position at the end of June, after ten years as Director.

CNN television news anchor and Yale Cancer Center Board Member Paula Zahn hosted the evening and thanked Dr. DeVita for his outstanding contributions to cancer research and treatment throughout his career. Kathryn Anderson Adams of Greenwich chaired the event, Carolyn and Duke Brodsky of Westport and Mr. and Mrs. Alexius Conroy of Fairfield served as co-chairs for the evening. Yale Cancer Center also thanked its underwriters: Bayer Corporation, Morgan Stanley, Amy and Joseph Perella, and Pratt & Whitney, A United Technologies Company.

The guests were served on gorgeous place settings from Hermès of Paris. Hermès at Richards of Greenwich donated a set of four place settings to one winner drawn at random. H. Mangels Confectioner, NYCO International, Inc., The Manhattan Club, and Sony Music Entertainment provided gifts to all guests. Tiffany & Co. of Greenwich also graciously donated gifts for the event.

New York City Opera stars Katharine Goeldner and Gerard Powers, accompanied by pianist Lynn Baker, entertained the guests. They were followed by nineteen-year-old jazz sensation, Peter Cincotti, played hits from his first CD, Peter Cincotti, which was released in March.

Paula Zahn announced a $75,000 gift in honor of Dr. DeVita from Pinnacle Performance Products. This gift will fund a clinical fellow in cancer genetic counseling and the newly developed Pinnacle Program in Integrated Medicine at Yale Cancer Center.

...continued from page 2, PET Scan Center...

The Food and Drug Administration has not approved PET Scans for all types of cancer. Dr. Garg warns that this approval should not be confused with the notion that PET imaging is not useful in other diseases. However, insurance companies do not typically cover the cost of scans, which are not FDA approved. To overcome this obstacle, research is currently being done throughout the country, at institutions similar to Yale, to identify and document the role and usefulness of PET imaging for all types of cancer. The PET imaging is presently approved for breast, colon, lung, lymphoma, melanoma, head and neck, esophageal, and selected types of thyroid cancers.

The PET Center is currently located in West Haven at the VA Medical Center. Long-term plans are to move this resource to the Yale Campus within the next few years. For more information on the Center, or to schedule an appointment for patient scanning, please contact the Center at (203) 937-3427.

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The PET Center will use a device much like a breast pump to draw a tiny amount of fluid from healthy female study participants and analyze its content using gas chromatography. Dietary data will also be collected in an effort to draw conclusions between levels of fatty acids in the breast, blood, and diet. “We are excited to move ahead and test this on a greater number of women,” Mayne explained. Mayne is hoping that the first year funding from the Breast Cancer Alliance will allow her to generate the results she needs before moving ahead with etiologic studies linking fatty acid profiles in the breast to the risk of breast cancer.

Because epidemiological research greatly depends on the quality and validity of available data, the development of biomarkers significantly improves the credibility of the research and ultimately our understanding of diet and disease relationships. Mayne’s evaluation of both carotenoids and fatty acids at YCC brings significant promise into two areas of cancer research and prevention.
Yale Celebrates Cancer Survivors Day

Over 150 Cancer Survivors and their families joined their physicians, nurses, and the staff of Yale Cancer Center for a day of workshops and a picnic on May 29th in celebration of Cancer Survivors Day. The event, titled New Beginnings: Complementary Approaches to Living Well Today, invited guests to attend one of three workshops: Habits of Gratitude, Life After Cancer, or Learning Massage Techniques.

Hosting his sixth Cancer Survivors Day at Yale Cancer Center as Master of Ceremonies, Dr. Mel Goldstein, meteorologist on WTNH News Channel 8, greeted the guests at the picnic and introduced Mary McCarthy and Rose Jones, cancer survivors who spoke about their experiences confronting and surviving cancer.

Run Honors Mothers and Raises Funds for YCC

On Mother’s Day, students at Choate Rosemary Hall participated in their third annual Terry Fox Run to benefit Yale Cancer Center. Ankooor Shah, a student at the school, coordinated 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.

This year’s run honored Mothers and celebrated the research and advances in breast cancer treatment, over $3,000 was raised for Yale Cancer Center. Dr. Donald Lannin, Executive Director of the Yale Breast Center, welcomed the runners and spoke about the resources and technology available at Yale Cancer Center before thanking them for their support and dedication to cancer and sending them off on the 5K run.

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 in a journey dubbed The Marathon of Hope. Terry’s 1980 run raised $24.17 million, to date the foundation has raised almost $300 million worldwide. Terry died in June 1981, leaving a foundation working to “maintain the heroic efforts and integrity that Terry Fox embodied.”

Women Undergoing Breast Biopsies Sought for Free Reiki Treatments

Over one million women endure a breast biopsy annually in the United States and although 80 percent of those women do not receive a diagnosis of cancer, they are affected by the stressful period leading up to the results. Pamela Potter, MA, MSN, APRN, a doctoral candidate at Yale University School of Nursing, is seeking to study the distress patients experience when they have a breast biopsy and to help alleviate it with free Reiki treatments.

The current realm of care for a patient undergoing a breast biopsy does not include any practices to reduce stress. Potter hopes to demonstrate that by including a Reiki treatment both before the biopsy and following the procedure, the amount and length of distress in the patient will be greatly reduced. Reiki, meaning “universal life energy” is a method of healing originating in Japan using a hands-on healing pattern to complement conventional care.

The study is open to women over the age of 18 who have been scheduled for a stereotactic, excisional, or needle localization breast biopsy. The women will be randomly assigned to either a Reiki or usual care group. Those in the Reiki group will receive two treatments, one within the week before the biopsy and one within the week following. The results of the study will be evaluated using self-report questionnaires administered to both groups pre-biopsy (within 5-7 days), post-biopsy (within 1 day), and again post-biopsy (within 4-7 days). The usual care group will be offered a free Reiki treatment after the study has been completed in appreciation of their participation.

A certified Reiki practitioner will give the Reiki treatments at a local complementary therapy office. The treatments are free for all study participants.

Women who are interested in participating in the study should contact Pamela Potter at (203) 507-0001 or pamela.potter@yale.edu
OVARIAN CANCER IS THE FOURTH LEADING CAUSE OF CANCER related death in women in the United States; it is the leading cause of gynecological malignancies. Yale Cancer Center researchers, Gil Mor, MD, PhD and Thomas Rutherford, MD, PhD, Associate Professors in the Department of Obstetrics and Gynecology, have begun an investigation into the use of the drug phenoxodiol for ovarian cancer patients. The only Center in the United States currently approved to use the drug in a clinical trial for ovarian cancer patients, Yale Cancer Center is currently enrolling patients with recurrent ovarian cancer that has proven resistant to second line chemotherapy for the phase II trial.

Phenoxodiol is an experimental anti-cancer drug developed by Marshall Edwards, Inc., a pharmaceutical company dedicated to the field of oncology. Preliminary studies involving a number of flavonoid derivatives showed that phenoxodiol inhibits cellular proliferation of a wide range of human cancer cell lines including leukemia, breast, and prostate carcinomas. In their investigation of ovarian cancer, Mor and Rutherford were able to identify new signaling pathways, more importantly they have found drugs that significantly altered the signaling pathways to induce cancer cell death. Their findings have been published in the May issue of the journal *Oncogene*, published by the Nature Publishing Group.

Apoptosis, or programmed cell death, is essential for the preservation of tissue homeostasis; this function is blocked in cancer cells. Therefore, a crucial objective of Mor and Rutherford’s study has been the development of new treatments for ovarian cancer that can specifically restore apoptosis in cancer cells without affecting the normal tissues. Phenoxodiol has proven to accomplish these objectives both in vitro and in vivo by mediating the removal of blockers of apoptosis in cancer cells and renewing their sensitivity to cell death. “We’ve found that this drug is an efficient inducer of cell death in ovarian cancer cells and sensitizes the cancer cells to apoptosis,” said Mor.

“In the laboratory, we have identified phenoxodiol to be an extremely effective agent in causing ovarian cancer cells to undergo cell death. Clinically, we are investigating possible toxicity and response at different dose levels in women with chemo-resistant ovarian cancer. In some of these women, disease regression or stabilization has been realized,” Dr. Rutherford explained.

For more information on this study or to discuss enrollment in the trial with one of the physicians, please contact Renee Luongo, Manager of Clinical Services, Department of Obstetrics and Gynecology, at (203) 737-5225.

Breast Cancer Alliance Site Visit

The Breast Cancer Alliance, Inc. spent an afternoon in May listening to presentations by Yale Cancer Center researchers applying for grants from the Alliance for their 2003 grant period. Six researchers have submitted proposals for review by the Alliance and their Scientific Review Board. Over the past five years, Yale Cancer Center researchers have received over $700,000 from the Alliance in support of their work. Notification will be sent out in the Fall to those who have been awarded grants.
Survivor and Entrepreneur Tells Her Story

Patients, friends, and staff of Yale Cancer Center were treated to a luncheon on April 21st celebrating the publication of Marcia Israel-Curley's autobiography, *Defying the Odds*. Mrs. Marcia Israel-Curley has twice survived breast cancer and is a member of the Yale Cancer Center Advisory Board. She was the founder of Judy’s, a retail fashion institution, which began with one tiny store in LA in 1948 and grew to a major public company, with 104 stores and over 2,000 employees when it was sold in 1989.

One of America’s first female entrepreneurs to have large-scale success, Mrs. Israel-Curley told the group stories of her struggle through the “man’s world of business.” The drive and motivation that contributed to her rise in business translated into a positive attitude in her fight to survive cancer.

Following her lecture, Mrs. Israel-Curley personalized copies of *Defying the Odds* for the guests.

Marcia Israel-Curley lives in Los Angeles and New York City with her husband, Jim Curley. Mrs. Israel-Curley established the Marcia Israel Laboratory for the Earlier Detection of Cancer, which was founded in 1999 at Yale Cancer Center.

The Cancer Chemotherapy Handbook

Yale Cancer Center Members, David S. Fischer, MD, Clinical Professor of Medicine, and M. Tish Knobf, RN, PhD, Associate Professor of Oncology Nursing, have recently published the sixth edition of *The Cancer Chemotherapy Handbook*, a comprehensive guide on the care and chemotherapeutic treatment of cancer patients. The compact guide encompasses all major chemotherapeutic agents and combinations as well as investigational and newly approved drugs. The new edition includes more than 75 new drug regimens as well as a new chapter on medication safety.

The handbook was written in conjunction with Henry J. Durivage, PharmD, from the Cancer Institute of New Jersey and Nancy J. Beaulieu, RPh, Oncology Clinical Pharmacy Specialist at Yale-New Haven Hospital, for more information please contact Dr. Fischer at david.fischer@yale.edu

Yale Cancer Center’s quarterly newsletter is written to inform the public and the Center’s friends, volunteers, donors, and staff on current items of interest at Yale Cancer Center. All inquiries should be addressed to Renee Gaudette, Public Affairs Manager, 100 Church Street South, Suite 211, New Haven, CT 06519-1714. Yale Cancer Center complies with the Health Insurance Portability and Accountability Act (HIPAA) of 1996.