

PreventionPOST

April 2004

VOLUME 6/ISSUE 1

NEWSLETTER OF THE NCI DIVISION
OF CANCER PREVENTION



IN THIS ISSUE

Personalized Nutrition: The Next Wave of the Genetic Revolution?	1
New Frontiers in Cancer Detection and Diagnosis: Report on the Early Detection Research Network-Gordon Research Conference	2
PreventionPOST credits	2
History of Cancer Prevention: Immunizing Against Cancer: The First Tentative Steps	3
From the Bench to the Bedside: The Role of the Community Clinical Oncology Program (CCOP)	4
Challenges Create Opportunities	5
Transitions	6
2003 DCP Winter Party	6
Visiting Scholars	7
DCP Awardees	8
Cancer Prevention: A European Perspective and an EPIC Undertaking	8
The Contract as a Funding Mechanism	9
At the Forefront of Training	10
The Second Annual Cancer Prevention Fellows' Scientific Symposium	11
DCP Calendar of Events	12

Personalized Nutrition: The Next Wave of the Genetic Revolution?

CINDY DAVIS

Diet may be a risk factor for a number of diseases, including cancer, diabetes, and cardiovascular diseases. However, the specific effect of various bioactive food components depends on an individual's genetic blueprint. Each of us is a unique organism, and one diet is not optimal for everyone. Scientific evidence suggests that each individual utilizes bioactive food components in a unique way, depending on his or her specific DNA. Just as no two people have matching fingerprints, neither do any two individuals have identical DNA. The interface between a person's genetic makeup and subsequent nutrient-induced changes in gene expression is referred to as "nutritional genomics" or "nutrigenomics." The same tools and methods used in genomics research (single nucleotide polymorphism analysis, gene expression profiling, proteomics, metabolomics, bioinformatics, and biocomputation) are being used to examine an individual's response to his or her nutritional environment. A mechanistic "one size fits all" approach is giving way to a new paradigm focused on biologic, metabolomic, and genetic effects of nutrients, phytochemicals, and other bioactive components in food. The desired outcome of nutrigenomics is the use of personalized diets to prevent or delay the onset of disease and to optimize and maintain human health.

Imagine a world in which you know exactly how much of a vitamin or mineral you need for optimal health and energy. Imagine a time when you can match your wellness needs with a precise understanding of just how



much of a low-cost, highly effective botanical you need to combat a cold. Some scientists

One Size Does Not Fit All! cold. Some scientists



believe that, in less than 10 years, you'll be able to go to a lab and complete a set of genetic tests to identify your personal disease susceptibilities. When you leave the lab, you'll be armed with a list of foods to eat and to avoid and a recommendation of dietary supplements to help prevent "your diseases."

A May 4, 2003 *New York Times* article, entitled "What your genes want you to eat," described the following scenario: "A trip to the diet doc, circa 2013. You prick your finger, draw a little blood and send it, along with \$100 fee, to a consumer genomics lab in California. There, it's passed through a mass spectrometer, where its proteins are analyzed. It is cross referenced with your DNA profile. A few days later, you get an e-mail message with your recommended diet for the next four weeks. It doesn't look too bad: lots of salmon, spinach, selenium supplements, bread with olive oil. Unsure of just how lucky you ought to feel, you call up a few friends to see

continued on page 7



New Frontiers in Cancer Detection and Diagnosis: Report on the Early Detection Research Network-Gordon Research Conference

JACOB KAGAN, PADMA MARUVADA, AND MUKESH VERMA

The Early Detection Research Network (EDRN), a National Cancer Institute (NCI)-sponsored consortium for the development, testing, and validation of biomarkers for early detection and risk assessment of cancer, and the Gordon Research Conference joined forces to develop a biannual meeting entitled "New Frontiers in Cancer Detection and Diagnosis." The most recent meeting was held at Procter Academy in Andover, New Hampshire, August 17-22, 2003. The Conference was sponsored by the NCI's Division of Cancer Prevention (DCP), Cancer Biomarkers Research Group (CBRG), and was co-chaired by Dr. Sudhir Srivastava, NCI, DCP, CBRG, and Dr. Bernard Levin, from the University of Texas M.D. Anderson Cancer Center. It was a successful and largely attended event, with over 125 participants representing more than eight countries and four continents. Scientists from academic, federal, and industrial fields made presentations and participated in the daily poster sessions. DCP Director Dr. Peter Greenwald presided over the event and encouraged EDRN scientists to further develop and validate biomarkers for earlier detection and risk assessment of cancer. Other speakers included Drs. David Sidransky from Johns Hopkins University, Joe Gray from Lawrence Livermore National Laboratory, and Richard Smith from Pacific Northwest National Laboratory.

Scenic New Hampshire provided an ideal and peaceful locale for this six-day conference, which focused on cancer detection and risk assessment. Among the many interesting topics covered were molecular profiling, development of proteomic approaches in cancer detection, epigenomic modifications as cancer biomarkers, development of computational tools for the analysis of cancer signatures, and development of novel detection strategies. Each session was followed by an interactive discussion. Dr. Lance Liotta of NCI's Center for Cancer Research, Laboratory of Pathology, presented his

views on how novel proteomic approaches might help identify early-stage ovarian cancer and enable the transition from bench science to bedside. Dr. David Botstein of the Genomics Institute, Princeton University, emphasized the need for more research on genome-wide patterns of gene expression in cancer despite advances in proteomics. Many EDRN investigators presented their scientific work, thus allowing an outsider's look into the quality of EDRN-promoted research. Dr. Bruce Ponder from Cambridge University, United Kingdom, spoke on the prospects for single nucleotide polymorphism (SNP)-based risk profiles for breast cancer. Dr. Julio Celis from the Danish Center for Human Genome Research presented an integrated longitudinal approach to breast cancer research utilizing genomic, proteomic, and imaging techniques. There was a special session devoted to novel approaches to biomarker validation that was led by Dr. William Bigbee of the University of Pittsburgh. Dr. Barry Kramer of the National Institutes of Health, Office of the Director, spoke about various study designs for validation of biomarkers.

The conference was attended by both distinguished and young scientists, thus allowing a great opportunity for networking and scientific interactions. Overall, this was a memorable and informative meeting that fostered many innovative ideas for biomarker research. ■



2003 EDRN-Gordon Conference, Andover, New Hampshire

Prevention**POST**



The DCP Newsletter welcomes new member Paul Wagner!

DCP Newsletter Project Team

EDITORIAL GROUP:	DESIGN/WEB GROUP:	PRINTING/DISTRIBUTION GROUP:
Susan Perkins (Editor-in-Chief), Cindy Davis, Graça Soares, Ann O'Mara	Doris Browne, Kathleen Foster TEAM PHOTOGRAPHER: Grant Izmirlan	Jacob Kagan, Doug Midthune, Gloria Rasband, Paul Wagner

Prevention**POST**

Newsletter of the Division of Cancer Prevention
National Cancer Institute
Executive Plaza North, Suite 3109
6130 Executive Boulevard, MSC-7361
Bethesda, Maryland 20892-7105

Questions or comments?
Please send email to
pp_editor@ncicrf.gov

Back issues of the *PreventionPOST* may be seen online at
<http://www3.cancer.gov/prevention/about.html#pp>

Immunizing Against Cancer: The First Tentative Steps

KATHLEEN FOSTER

William B. Coley (1862-1936), a physician practicing medicine in turn-of-the-century New York, has been referred to as “the Sherlock Holmes of Cancer.”

Given the challenges for practitioners at that time—penicillin had not yet been discovered and radium was not isolated until 1903—he needed to exercise all of the acuity of this fictional sleuth. Coley was a product of his time, and Victorian America was seething with the energies of a new age and with the promise of revolutionary technologies. As a graduate of the Harvard School of Medicine and one who possessed an active scientific curiosity, Coley took advantage of these gifts to evolve into one of the first pioneers in the field of cancer immunology.

The young surgeon and researcher started his medical practice at New York City’s Memorial Hospital, now known as Memorial Sloan-Kettering Cancer Center. However, Coley soon found himself thwarted in his efforts to arrest the growth of cancer in a 19-year-old girl with a sarcoma of the arm. She was his first cancer patient, and she succumbed to the disease despite an early diagnosis followed by amputation. This loss fueled his desire to find a cure for cancer and set Coley on a path of discovery that shaped his entire career.

Initially, Coley commenced a retrospective study of all sarcoma patients treated at Memorial Hospital. Although the majority of these patients did not survive the disease, one exceptional patient beat the odds despite a poor prognosis. The single factor that made this case unique was that, while hospitalized, the patient endured two bouts of erysipelas, a severe skin infection caused by *Streptococcus*. As Coley continued his case review, he started to detect a pattern: patients who developed the acute post-surgical infections that were then commonplace, and who survived the infection, sometimes fared better with the course of their malignancies as well.

Now intrigued by the possible association between a bacterial infection and tumor regression, Coley turned to the laboratory and developed a purified extract from the cell walls of live bacteria. In the 1890s he began injecting cancer patients with his rudimentary bacterial formula. Despite initial failures, Coley persevered with his treatments, later obtaining a particularly virulent culture of *Streptococcus* from the famous German bacteriologist, Robert Koch. The patient injected with bacteria from this culture had presented with tumors on his tonsils and neck; these tumors completely regressed after he

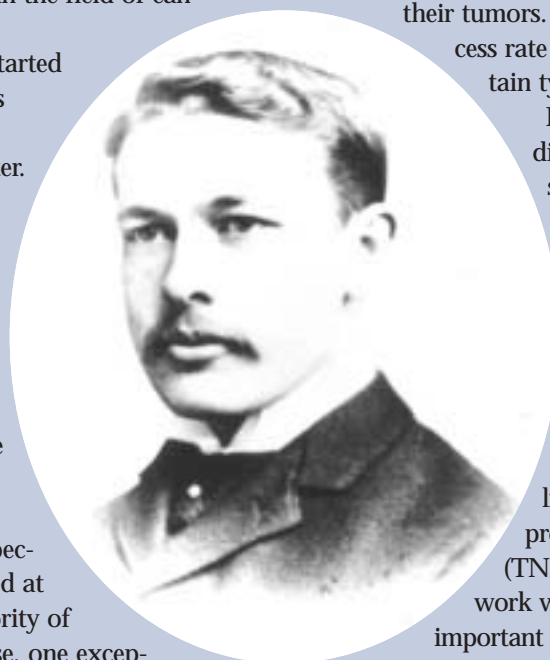
endured a severe vaccine-induced case of erysipelas. Coley published a paper on his method, “A Preliminary Note on the Treatment of Inoperable Sarcoma by the Toxic Product of Erysipelas,” *Post-Graduate* 8:278-86, 1893.

Understandably, the use of live bacteria was risky for all concerned. Coley returned to the laboratory and went on to make his vaccine from dead *Streptococcus* byproducts mixed with another bacillus, heat-killed *Serratia marcescens*. Over 900 terminally ill cancer patients were injected with what came to be known as “Coley’s Toxins.” Apparently, if these brave research subjects were able to endure repeated vaccine-induced fevers, they had a chance at spontaneous regression of their tumors. Coley reportedly claimed a 40% success rate in inducing long-term remissions in certain types of cancer.

In 1943 NCI researcher M.J. Shears discovered that the biologically active substance in Coley’s toxins was lipopolysaccharide, a major component of the cell walls of gram-negative bacteria. A heated and less effective version of this compound was produced by Parke-Davis until the 1950s. In the 1970s an offshoot of Coley’s original hypothesis led to the discovery that the active component in lipopolysaccharide, lipid A, stimulates the immune system to produce tumor necrosis factor-alpha (TNF- α). It is now recognized that Coley’s work was a turning point in understanding the important role of the body’s immune system in fighting cancer, and his legacy serves as a foundation for modern immunotherapy.

Regrettably, many who tried to replicate Coley’s results failed to do so, and this innovative physician endured years of skepticism and scorn for his experiments.

His groundbreaking work was subsequently eclipsed by the emergence of radiation and chemotherapy, and the use of immunotherapy for cancer languished. However, once again technological advances have enhanced the field of medicine, and the evolution of genetic engineering has led to a better understanding of the cancer process and the complexities of the human immune system. It has taken over one hundred years for science to catch up with the inspired thinking and genius of a man who was willing to try to harness the resources of the human body to fight back the cancer cells that were growing unchecked in his terminally ill patients. We can only speculate at the satisfaction that the “Sherlock Holmes of Cancer” would experience on learning that the mystery of malignancy is at long last verging on a solution. ■



Photograph provided by the Cancer Research Institute. The Cancer Research Institute was founded in 1953 by Helen Coley Nauts in order to continue the work started by her father, William B. Coley, M.D. Its mission is to foster the science of cancer immunology.

From the Bench to the Bedside: The Role of the Community Clinical Oncology Program (CCOP)

ANN O'MARA

History of the CCOPs

In the early 1980s, two forces for the advancement of cancer care were in place: 1) physicians who had trained at academic cancer centers were increasingly entering community practice to care for the majority of cancer patients in the country, but 2) patients still had to travel to cancer centers to participate in cutting-edge cancer clinical trials.

The identification of this problem was the impetus for the creation of the Community Clinical Oncology Program (CCOP) of the

National Cancer Institute (NCI). The challenge was to design and implement a program to ensure that cancer patients treated in their communities had access to quality medical care and clinical trials. By introducing up-to-date cancer management into the community in the form of research clinical trials,

community physicians would also be more ready and able to apply the proven treatment regimens to all their patients. Diffusion of state-of-the-art cancer treatment to the practices where people were being treated would be enhanced. Could this success be extended into the cancer prevention arena?

By 1986, the success of the CCOPs in accruing patients to treatment trials was clear; as a consequence, the scope of the program was expanded to explicitly incorporate cancer control, which included both cancer prevention clinical trials and symptom management clinical trials. In 1990, NCI decided that sufficient evidence existed to undertake a large trial to determine if tamoxifen, a cancer treatment drug, could reduce a woman's chance of developing breast cancer. The National Surgical Adjuvant Breast and Bowel Project (NSABP) successfully competed for the peer-reviewed supplement to design and conduct the randomized, placebo-controlled trial for women who were cancer free but at increased risk of developing breast cancer. Participation of CCOPs located across the country was crucial to the success of this trial, which led to tamoxifen becoming the first cancer prevention drug approved by the U.S. Food and Drug Administration.

Today

Twenty years after its founding, the CCOP has accomplished

the early goals of including community physicians in clinical research and of expanding the research focus of the Cancer Cooperative Groups and cancer centers—the institutional entities, or “research bases,” that support clinical trials—to include cancer prevention. For example, the CCOPs provide about one-third of all of the subjects for NCI's large-scale prevention clinical trials, such as STAR (Study of Tamoxifen and Raloxifene) and SELECT (Selenium and Vitamin E Cancer Prevention Trial). In addition to the large-scale trials,



The Community Oncology and Prevention Trials Research Group: (left to right) Lori Minasian, (Chief), Denise Boyer, Joseph Kelaghan, Cynthia Whitman, Wortia McCaskill-Stevens, Ann O'Mara, Lindy Wong

the CCOP program is also supporting 22 smaller-scale phase II and phase III trials. These smaller trials include studies of dietary soy and biomarkers of prostate cancer; 13-*cis*-retinoic acid to prevent second primary tumors in stage I non-small cell lung cancer; and topical immunomodulatory therapy with imiquimod for chemoprevention of recurrent high-grade cervical intraepithelial neoplasia (CIN).

In addition to supporting cancer prevention clinical trials, the CCOP program supports an array of trials focusing on the prevention and management of symptoms associated with cancer and its treatment. Currently, there are over 60 open and accruing clinical trials testing interventions to prevent or manage pain, weight loss, anorexia, bone loss, neurocognitive dysfunction, fatigue, and hot flashes.

More than 4,000 community physicians now participate in NCI clinical trials through the CCOP network. In addition, 51 CCOPs and 11 Minority-Based CCOPs are funded across 34 states, the District of Columbia, and Puerto Rico, providing access to cancer clinical trials in 403 community-based hospitals. Since 1989, over 74,500 people at risk for cancer development have been enrolled in cancer prevention clinical trials through this collaborative program.

So, given this little bit of history, exactly what is a CCOP?

A “CCOP” is a group of hospitals and/or private practices that applies and receives a CCOP grant for their participation in NCI-sponsored clinical trials. There is significant variation in the size of CCOPs. Some consist of one or two local-level hospitals, while others span organizations across several states. The program is geared toward groups of organizations or private practices that can accrue at least 50 patients to

continued on page 5

treatment trials and 50-75 participants to cancer prevention and control trials annually.

While the CCOPs are often referred to as “the accrual engines” for NCI-sponsored clinical trials, the research bases are the “the protocol engines,” in that they are required to develop a menu of cancer prevention and control protocols that are open to the CCOPs. Additionally, the research bases manage and analyze all data collected and monitor data

quality and participant accrual.

The range of clinical trials sponsored by the CCOP is a testament to the efforts of investigators in the basic sciences and molecular biology. Every day, findings from these trials are being given back to the community, both as advances in cancer prevention and as improvements in quality of life for patients with cancer. ■

Challenges Create Opportunities

JACKIE HAVENS, WITH CONTRIBUTIONS BY ERIC GRAVES; CONVEYED TO THE PREVENTIONPOST BY KATHLEEN FOSTER

When Kathleen Foster first approached me to write an article that “will appeal” to the Administrative Staff in the Division of Cancer Prevention (DCP), I thought, “no problem.” Then, as I sat in front of my word processor, I was at a loss for words (no small thing for me!).

This has been a challenging year for all Administrative Staff at the National Cancer Institute. We’ve had a major change in our travel system, changes in Delegations of Authority, a consolidation of Human Resources (HR), changes in policy and regulations, A-76, another round of Continuing Resolutions, new systems to learn... the list goes on and on....

And yet, we in the Administrative field are charged “to create an environment that supports the Nation’s investment in cancer research through responsive and innovative administrative practices.”

So how can we continue to stay motivated and “responsive” and “innovative” under such challenges? I won’t make tired analogies of fighting against rising tides or staying afloat on a pitching deck, but I will be honest with you: it won’t be easy.

The challenges before us are daunting. We will get frustrated. It will seem like outside forces are stopping us from accomplishing our goals. But we simply have no choice because our mission is that important.

When I was in junior high school, I was on the worst soccer team ever. We were unorganized, and none of us really had set positions except the goalie. I was an easily winded little Irish girl, so I mostly ran back and forth a lot without making much contact with the ball. We ended up getting our butts kicked every game. We’d drag ourselves off the field, sweaty, exhausted, and bone tired. But by the end of the season, we’d bonded like no other group I’ve been in since. Only through hardships can we learn our strengths and truly appreciate

the strengths of others.

Now is the time to examine your inner self and to develop those strengths within you. In an effort to help, the DCP Administrative Resource Center (ARC) has created a mini “Library of Change” with self-help books and material. One such book, *Who Moved My Cheese?* by Spencer Johnson, M.D., gives advice on how to deal with changes at work and in life. This quick read is an enjoyable parable with a good lesson on how to be alert to changes and what to do when your “cheese” moves, or runs out. Also included in this library are

Emotional Intelligence by Daniel Goleman and *The Seven Spiritual Laws of Success* by Deepak Chopra. We encourage DCP Staff to stop by and sign out one of these books.

NIH’s Work/Life Center has career consultants who are professionally trained to deliver Career Development Workshops to NIH employee groups. Let me know if you think it would be worthwhile setting up training sessions on skill-

developing topics such as *Effective Communication*, *Creating a Great Federal Resume*, or *Jump-starting Your Career*.

Part of dealing with change is getting an opportunity to discuss your concerns and issues with a group. The DCP ARC has monthly Operation Staff Meetings (OSM) with the Division’s Administrative Program Assistants to facilitate these types of discussions. Always feel free to email us an agenda item, and we’ll be happy to add it to the meeting.

I’d love to hear any other ideas you may have.

I don’t know how much longer we’re going to face dramatic changes– it seems the only constant is constant change– but I do look forward to learning and appreciating your strengths during these times of flux, and I hope everyone is as proud of the work you’re doing as I am of everyone in the DCP and our ARC. ■



CINDY DAVIS



Dr. Paul Wagner has joined the Cancer Biomarkers Research Group as a Program Director. After receiving a Ph.D. in biochemistry from Washington State University, he was a postdoctoral fellow at the Medical Research Council Laboratory of Molecular Biology in Cambridge, England. Following his fellowship, he was a Research Assistant Professor at the University of California, San Francisco. Paul spent 17 years as a Principal Investigator in the NCI's Laboratory of Biochemistry, where he studied and worked on determining the mechanism by which nm23 proteins suppress tumor metastasis. More recently, Paul worked at NIH's Center for Scientific Review as a Scientific Review Administrator.



Erin Iturriaga, R.N., CCRC, has joined the Protocol Information Office as a Nurse Specialist. Erin brings a strong background in multiple aspects of clinical research, including clinical trials management, education, and regulatory responsibilities. Prior to moving to the Washington, D.C., area, Erin managed neuromuscular clinical trials at UT Southwest Medical Center in Dallas and the UT Health Science Center at San Antonio. In addition, she managed the clinical trials program at INOVA Fairfax Hospital and worked as a regulatory department manager for a local company. More recently, Erin worked at Westat, where she served as the Education Manager on the DCP Monitoring Contract- a great jumpstart for understanding our organization. ■

BEST WISHES TO:



Jennifer Flach, who has left the Protocol Information Office after 13 years of service. Jennifer has accepted a new position in the Office of the Director, where she will be working on the NIH electronic Research Administration (eRA) project. This is a wonderful opportunity for her to use the informatics skills that she developed while working for DCP. ■

2003 DCP Winter Party



Photos courtesy of Dr. John Milner





Victor G. Vogel,
M.D., M.H.S.

Victor G. Vogel, M.D., M.H.S., Professor of Medicine and Epidemiology at the University of Pittsburgh, is a visiting scholar in the Breast and Gynecologic Cancer Research Group. There, he served as the co-organizer for the Ductal Lavage Workshop held in September 2003. He is currently focusing his attention on selecting clinically significant biomarkers in breast cancer prevention from the category of non-steroidal anti-

inflammatory drugs and COX inhibitors. He is the recipient of numerous honors and awards, including a Career Development Award from the American Cancer Society, a research fellowship from the Susan G. Komen Breast Cancer Foundation, and the Achievement Medal from the U.S. Public Health Service. He is a member of numerous boards and committees, including the Data and Safety Monitoring Board for the Women's Health Initiative of the National Institutes of Health. He also serves as the national protocol chairman of the National Cancer Institute's STAR (Study of Tamoxifen and Raloxifene) Trial. Dr. Vogel is the author of more than 150 articles, book chapters, and abstracts. He has served as Deputy Chairman of the Department of Clinical Cancer Prevention at the University of Texas M.D. Anderson Cancer

Center and is currently Director of the Magee-Womens Hospital/University of Pittsburgh Cancer Institute Breast Cancer Prevention Program.



David Ransohoff, M.D.

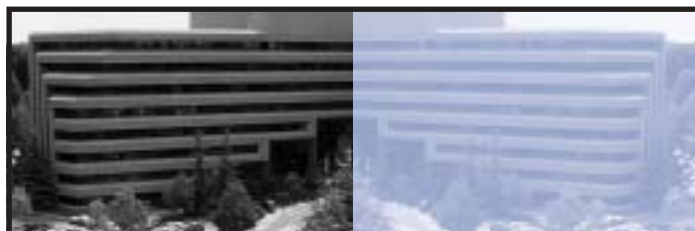
David Ransohoff, M.D., is a scholar in the Biometry Research Group visiting under the Intergovernmental Personnel Act. He comes to us from the University of North Carolina at Chapel Hill School of Medicine, where he is the Director of the Clinical Research Curriculum. His goal while at DCP is to assist in advancing the field of translational research by identifying molecular markers for early diagnosis of cancer.

As a cancer investigator, he has written extensively about conventional screening tests, including fecal occult blood testing, sigmoidoscopy and colonoscopy, and has numerous publications on the evaluation of diagnostic tests. Recently, in collaboration with investigators at the NCI and FDA, he has broadened his focus into the field of molecular markers by initiating a new proteomics study in patients with adenomatous polyposis. Part of this work will involve collaboration with members of the Biometry Research Group in the development of new analytic tools and the evaluation of existing ones for the analysis of this kind of complex molecular marker data. ■

Personalized Nutrition: The Next Wave of the Genetic Revolution? continued from page 1

what their diets look like. There are plenty of quirks. A Greek co-worker is getting clams, crab, liver and tofu— a bounty of B vitamins to raise her coenzyme levels. A friend in Chicago, a second-generation Zambian, has been prescribed popcorn, kale, peaches in their own juice and club soda. (This looks a lot like the hypertension-reducing 'Dash' diet, which doesn't work for everyone but apparently works for him.) He is allowed some chicken, prepared in a saltless marinade, hold the open flame—and he gets extra vitamin D because there's not enough sunshine for him at his latitude. Your boss, who seems to have won some sort of genetic lottery, gets to eat plenty of peanut butter, red meat and boutique cheeses."

Individualized nutrition may be one of the next technological and commercial frontiers emerging from the genetic revolution. Deciphering the human genome was in many ways a major milestone for nutritional science. As scientists annotate the human genome and metabolome, the role of nutrition research is to extend this knowledge and to understand the interactions among diet, genotype, and metabolism. Knowledge of these interactions will provide the means to intervene, by recommending an optimal diet designed to direct metabolism toward health and away from disease. In the future not only may we be choosing food because of its flavor and appeal, but also because what we choose to eat may help us live healthier and longer lives. ■



DCP home base: Executive Plaza

Cancer Prevention: A European Perspective and an EPIC Undertaking

DOUGLAS MIDTHUNE



On July 31, 2003, Dr. Elio Riboli, chief of the Nutrition and Cancer Unit at the International Agency for Research on Cancer, part of the World Health Organization, delivered the 4th annual *Advances in Cancer Prevention Lecture*. The event was sponsored by the National Cancer Institute's Division of Cancer Prevention as part of

its Summer Curriculum in Cancer Prevention and took place at Lister Hill Auditorium on the NIH campus in Bethesda, MD. Dr. Riboli's lecture, entitled "Cancer Prevention: A European Perspective," focused on the important role of diet in the development or prevention of many cancers and on an unprecedented study being undertaken in Europe to better understand that role.

The European Prospective Investigation into Cancer and Nutrition (EPIC) is one of the largest prospective nutrition studies ever conducted, accruing over 500,000 subjects from ten European countries. Dr. Riboli, project coordinator for the study, said that EPIC is designed to take advantage of the wide variety of dietary habits seen in Europe, from the Mediterranean diets of Spain and Greece to the Scandinavian diets of Sweden and Norway. This, in combination with the study's large size, will enable researchers to study the etiology

of less common forms of cancer, such as cancers of the esophagus, ovary, and endometrium. EPIC researchers collect blood samples from all subjects, in addition to detailed questionnaires on diet, physical activity, and lifestyle and anthropometric measurements such as height and weight. These extensive data will allow them to study biomarkers of diet, metabolic and hormonal patterns, and genetic susceptibility and how these factors interact with diet and lifestyle to determine an individual's cancer risk.

Although EPIC is designed to follow subjects until 2010 and beyond, Dr. Riboli noted that important results are already being seen. For example, a recent publication in *The Lancet* (361: 1496-1501, 2003) reported that dietary fiber plays a protective role against colorectal cancer. Preliminary indications are that diets high in fiber, fish, and fruits and vegetables may provide protection against colorectal, stomach, and upper aero-digestive tract cancers, while regular consumption of processed meat is associated with an increased risk of colorectal and stomach cancers. In light of the obesity epidemic being seen in Europe, the United States, and throughout the industrialized world, Dr. Riboli noted that it is especially important that studies such as EPIC be conducted to enable us to understand the relationship between diet, physical activity, and obesity, and how these factors affect one's risk of cancer and other diseases. ■



EPN and EPS (or is it EPS and EPN?) on an early fall day.
Photo by Grant Izmirlian.



Mary Lou Carter



Eric Graves



Joy Osborne



Mary Palmer



Dr. Leslie Ford



Dr. Howard Parnes

Congratulations to Mary Lou Carter, Eric Graves, Joy Osborne, and Mary Palmer, each of whom was awarded the 2003 NCI Customer Service Award “in honor of superior customer service in advancing science at the NCI.”

Congratulations to Dr. Leslie Ford, who received an NIH Merit Award in October 2003. The award was given in recognition of Dr. Ford’s contributions to the NCI Conference on

Early Reproductive Events and Breast Cancer.

In October 2003, Dr. Howard Parnes was honored with a Commission Corps Award at the NCI Awards Ceremony. He received a Commendation Medal for sustained high quality scientific and administrative achievements as Chair of the Division of Cancer Prevention Concept Review Committee. ■

At the Forefront of Training

SUSAN N. PERKINS

Debut of the On-line Application

Just in time for the 2004 recruitment cycle, the Cancer Prevention Fellowship Program (CPFP) rolled out its new, Internet-based application process. Dr. Shine Chang, Associate Director for Professional Development and Program Evaluation, OPO, led the effort to create an on-line application tool that will streamline procedures for both applicants and Program staff. The project was developed and implemented in collaboration with Information Management Systems, a government contractor with expertise in electronic applications and data management, and successfully met its scheduled July 1 launch date. Designed to be user friendly, the electronic application is accessed through a secure Internet web site (<https://cpfp.cancer.gov/>).

Recruitment of 2004 Fellows

The fact that 95 of the 103 applications received this year were submitted electronically is a tribute to the success of the new application process. Moreover, the number of applications was very similar to the average number received in recent years, implying that applying on-line did not represent a barrier to potential applicants. This notion was supported by feedback obtained from a few of the individuals who started but did not submit an application. All applications were judged by the same criteria, regardless of how they were transmitted.

The new Clinical Cancer Prevention Research Track attracted 38 applications in its first year, while the 14 applicants registering for Ethics of Prevention and Public Health signified continued interest in this two-year-old specialty track. From the top 30 applicants brought to Executive Plaza for interviews on October 29–31, the Program selected 15 new Cancer Prevention Fellows. Of these, 10 will spend their first year obtaining a Master of Public Health (M.P.H.) degree; meanwhile, 5 fellows will start their postdoctoral training at the NCI in late June 2004 and participate in the NCI's Summer Curriculum in Cancer Prevention.

continued on page 11



Cancer Prevention Fellowship Program

AWARDS

Congratulations to first-year fellow Marla Clayman, whose paper received an Honorable Mention for the 2003 Laurence G. Branch Doctoral Student Research Award from the American Public Health Association at its Annual Meeting in San Francisco in November 2003.

Second-year fellow Ken Hance received an Astra-Zeneca Scholars Award to attend and present at the San Antonio Breast Cancer Symposium in December 2003. This was one of five such travel awards, sponsored by the Astra-Zeneca Pharmaceutical Co., that are given to postdoctoral scientists and physicians each year.

Second-year fellow Melinda Butsch Kovacic was elected by the NIH Fellows Committee (FELCOM) to represent NIH at the National Postdoctoral Association. She was recently appointed to serve as Editor of the organization's quarterly electronic newsletter, The POSTDOCKET (<http://www.nationalpostdoc.org/postdocket/>).

Second-year fellow Christine Holmberg has been selected to participate in the New Investigators Workshop at the Annual Meeting of American Society of Preventive Oncology, to be held in Bethesda, MD, in March 2004.

Recent alumna Alexis Brown Bakos received an Honorable Mention for the 2003 Aetna Susan B. Anthony Award for Excellence in Research on Older Women and Public Health. Her paper was recognized at the Annual Meeting of the American Public Health Association in San Francisco in November 2003. ■

ON THE PERSONAL SIDE

Special congratulations to Laura E. Beane-Freeman and her husband, Bryce Freeman, on the birth of their son, Bennett David Freeman; to Tamaro Hudson and his wife, Jaime Hudson, on the birth of their daughter, Sara Cheré Hudson; and to Larissa Korde and her husband, Scott Cole, on the birth of their daughter, Maya Alison Korde Cole. Special congratulations also to Lisa Poe, Program Administrative Assistant, and her husband Shawn Poe, on the birth of their daughter, Sarah Marie Poe. ■

The Second Annual Cancer Prevention Fellows' Scientific Symposium

GRAÇA M. DORES

The National Cancer Institute's Cancer Prevention Fellowship Program (CPFP) held its Second Annual Cancer Prevention Fellows' Scientific Symposium on September 10, 2003. Cancer Prevention Fellows, CPFP staff, and invited speakers met in Gaithersburg, Maryland, at the Marriott Washingtonian Center for this special, all-day event. The Symposium Planning Committee, comprised of Cancer Prevention Fellows, Drs. David Buchanan, Amanda Greene, La Creis Kidd, Somdat Mahabir, Nomelí Núñez, Arti Patel, and Lila Finney Rutten, organized the day to include activities of interest for fellows between their first and fourth year in the Program.



While viewing Dr. Amanda Greene's poster, (left to right) Drs. Jenifer Fenton, Stephen Hursting and Somdat Mahabir engage in a scientific discussion.



Drs. J. Carl Barrett and Arti Patel discuss cancer prevention.



(Left to right) Drs. Heather Poetschke Klug, Leah Mechanic, Stephen Hursting, and Nomelí Núñez discuss research endeavors.

After introductory remarks from Dr. Douglas Weed, the Director of the CPFP, the day started with "Friends, Fellows, and Skittles[®]," an "icebreaker" activity designed to help incoming fellows become acquainted with senior fellows and CPFP staff. This was followed by a scientific Poster Session, during which time participants had the opportunity to learn



(Left to right) Drs. Nomelí Núñez and Stephen Taplin discuss the favorable effects of energy balance.



(Left to right) Cancer Prevention Fellows, Drs. Yvonne Vargas, Christine Holmberg, Marie Cantwell, Jill Reedy, and Dilyara Barzani, at the Symposium.

about and discuss the various research endeavors being undertaken by Cancer Prevention Fellows.

Thereafter, the Keynote Speakers each presented their views on the future directions of cancer prevention research—Dr. Stephen Taplin from a clinical and behavioral scientist's perspective and Dr. J. Carl Barrett from a basic scientist's viewpoint. This session was structured after the television show "Crossfire" and served as a friendly forum for subsequent interaction between the audience participants and the speakers.

In the afternoon, fellows and staff reassembled for the session led by Janet Bickel, M.S., entitled "Thinking like the CEO of your own Career: Strategic Career

Management Skills." Ms. Bickel spent 25 years at the Association of American Medical Colleges, where she created and led a series of professional development seminars. Following the afternoon Poster Session, Ms. Bickel led an interactive session entitled "So Tell Me About Your Career Accomplishments: Practicing an Effective Self Introduction." With opportunities for scientific exchange, networking, and professional development activities, the 2003 Cancer Prevention Fellows' Scientific Symposium was a success! ■

Cancer Prevention Fellowship Program continued from page 10

Review of the CPFP

On December 11 the CPFP underwent a thorough external review similar to the periodic site visits that intramural research programs are required to undergo. This review was initiated by DCP Director Peter Greenwald and Program scientific staff to provide direction to the Program as it moves forward. The CPFP assembled a panel of leading experts in training and in the field of cancer prevention. Chaired by Dr. Arnold Kaluzny (University of North Carolina–Chapel Hill), the panel included Dr. Robert Chamberlain (University of Texas M.D. Anderson Cancer Center), Dr. Paul Engstrom (Fox Chase Cancer Center), Dr. Electra Paskett (Wake Forest University), and former Cancer Prevention Fellows Dr. Paul Limburg (Mayo Clinic) and Dr.

Ellen Velie (Michigan State University).

In its final report the panel outlined their assessment of the strengths and future challenges of the Program and made several recommendations, both general and specific, that are designed to help the Program and its staff to "think strategically about how to meet the Program objectives within a changing environment." The staff is now working to implement these ideas, which are intended to help both streamline and strengthen the Program. The report ends by saying, "In sum, the committee was impressed with the program, its leadership, and progress to date.... The NCI is commended for supporting such a unique and stellar program for young investigators." ■

RECENT, ONGOING, AND UPCOMING DCP EVENTS

DATE	TOPIC	DESCRIPTION	WEBSITE
SEPTEMBER - JUNE 2003-2004	2003-2004 Colloquia Series	The Office of Preventive Oncology presents a Colloquia Series on Wednesdays from 11:00 a.m. to noon.	http://www3.cancer.gov/prevention/pob/fellowship/colloquia.html
DECEMBER 4-5, 2003	Workshop: Linking Haplotypes and Genetic Variation with Cancer Risk Assessment, Prevention, Detection, and Treatment	Reviewed the status of the human haplotype map and haplotype analysis with relevance to cancer and future directions.	http://www3.cancer.gov/prevention/haplotypes/
FEBRUARY 2-4, 2004	The Ninth Early Detection Research Network (EDRN) Steering Committee Meeting	Met to share information on current ongoing projects.	http://www3.cancer.gov/prevention/edrnsteering9/
MARCH 15-19, 2004	Nutrition and Cancer Prevention Practicum	The Nutritional Science Research Group is offering a one-week educational opportunity for post-baccalaureate dietetic studies to provide specialized instruction in the role of nutrition and cancer prevention.	http://www3.cancer.gov/prevention/nutrition/
MARCH 22-23, 2004	Site Coordinators' Opportunity for Research Excellence (SCORE IV)	The primary objective of this event is to promote and support the responsible conduct of DCP chemoprevention clinical trials.	http://www3.cancer.gov/prevention/score/
MAY 2004	Stars in Nutrition and Cancer Seminar Series	The purpose of this seminar series is to develop a series of lectures from outstanding contributors in the field of nutrition and cancer prevention and to bring participants with an interest in nutrition and cancer prevention, yet with diverse backgrounds, together to discuss specific issues in nutrition research. Speakers will be world renowned and have spent most of their career working in nutrition and cancer.	http://www3.cancer.gov/prevention/nutrition/
JUNE 17-20, 2004	EDRN Scientific Workshop	TBA	http://www3.cancer.gov/prevention/cbrg/edrn
JULY 6-30, 2004	Principles and Practice of Cancer Prevention and Control Course	This annual four-week summer course focuses on the concepts, methods, issues, and applications related to the principles and practice of cancer prevention and control. Participants have the opportunity to gain a broad-based perspective of these subjects, including resources, data, methods, and theories.	http://www3.cancer.gov/prevention/pob/courses/principles.html
JULY 29, 2004 3:00 p.m., Lister Hill Auditorium	Annual Advances in Cancer Prevention Lecture	TBA	http://cancer.gov/prevention/pob
AUGUST 2 - 6, 2004	Molecular Prevention Course	This annual course provides a strong background in the molecular biology and genetics of cancer as well as an overview of the basic laboratory approaches applied to cutting-edge research in the fields of molecular epidemiology, bionutrition, chemoprevention, biomarkers, and translational research.	http://www3.cancer.gov/prevention/pob/courses/molprev.html