



THE NATIONAL CANCER INSTITUTE AT FREDERICK

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## CCR Explores New Approaches to Breast Cancer Research

By Maritta Perry Grau, Staff Writer

At NCI-Frederick, a number of researchers, both government and contractor, are involved in breast cancer research. The main thrust of this research is carried out through the Center for Cancer Research (CCR), headed by Dr. Robert Wiltrout, CCR's Scientific Director for Basic Research and head of the Experimental Therapeutics Section, Cancer and Inflammation Program (CIP).

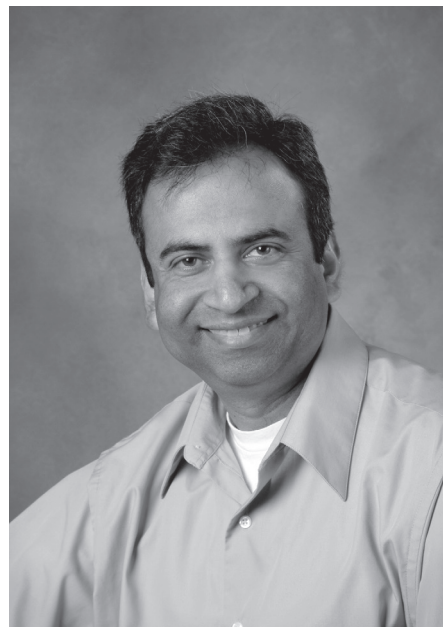
A number of strong research programs have been developed by CCR to investigate and combat various forms of cancer. More than 250 scientists and clinicians, along with nearly 1,000 postdoctoral and clinical fellows, focus on ways to develop new therapies against cancer and AIDS, through basic, clinical, and translational research, according to the CCR web site (<http://ccr.cancer.gov/>).

### Exploring the Significance of BRCA Variants

Among CCR's investigators are Dr. Shyam Sharan and his group (Genetics of Cancer Susceptibility Section) in the Mouse Cancer Genetics Program (MCGP). At MCGP, these researchers have focused on understanding the clinical significance of certain variants in mutations in the *BRCA1* and *BRCA2* genes, genes that predispose women to breast cancer.

"Women with a defect in one of these genes have up to an 80 percent risk of developing breast cancer by the age of 70, compared to the 13.7 percent risk for the general population in the United States," Dr. Sharan said in a recent e-mail.

To understand the functional consequence of such variants of unknown clinical significance, Dr. Sharan's group developed an assay that uses mouse embryonic stem (ES) cells. Simply put, the human gene carrying the variant of interest is added, and the endogenous mouse *BRCA1* or *BRCA2* genes are removed.



Shyam Sharan, Ph.D., Genetics of Cancer Susceptibility Section, Mouse Cancer Genetics Program, CCR

"If the variant is deleterious, the ES cells do not survive. On the other hand, if the variant is neutral, the ES cells survive. There are variants that may not affect cell survival but can still be deleterious. To test this, we have developed a series of tests based on what we know about the function of these genes. We examine the genes to determine

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whether any of the known functions are compromised,” Dr. Sharan explained.

“Women who carry a variant of unknown clinical significance in their BRCA 1 or 2 mutation face a serious dilemma: whether to ignore it, assuming that it is a neutral change, or to undergo prophylactic surgery to avoid any risk of developing the disease,” Dr. Sharan noted. “We do not know whether the variant will increase their cancer risk.”

### Developing Potential New Therapeutics from Grb2

CCR’s Dr. Terry Burke, head of the Bioorganic Medicinal Chemistry Section, Laboratory of Medicinal Chemistry, and his colleagues are developing cell-permeable growth factor receptor-bound protein 2 (Grb2) antagonists as potential new therapeutics for a variety of erbB-2- and MET-dependent cancers, which include breast cancer.

“Treating breast cancer has progressed steadily in steps that have allowed patients to survive longer and stay healthier, despite the persistence of disease. Effectively minimizing the process of tumor metastasis (the spread of malignant cells from the primary tumor to distant sites throughout the body) is the next major problem to overcome. This is where our research with Grb2-binding inhibitors is currently focused,” Dr. Burke said, also in a recent e-mail.

Dr. Burke explained that Grb2 is a non-catalytic adapter protein serving an important role in cellular signaling downstream of receptor tyrosine kinases (RTKs), some of which are associated with the etiology and invasiveness of breast cancers.

While classical RTK inhibitors work by blocking the kinase catalytic function of the RTK, Grb2-binding inhibitors exert their effects in a different manner: They block protein–protein associations that would otherwise occur from RTK activation. They may be a new class of potential anticancer therapeutics.



Terry Burke, Ph.D., Head, Bioorganic Medicinal Chemistry Section, Laboratory of Medicinal Chemistry, CCR

Dr. Burke pointed out that one of the most significant effects his group has seen with Grb2-binding inhibitors relates to a reduction in metastasis.

“Antimetastatic activity is important, since most cancer victims die when the cancer spreads,” he said.

“Because growth factor receptors, such as those in the epidermal growth factor receptor family, rely heavily on Grb2 for signaling cell survival, growth and invasion, disrupting Grb2 activity with agents such as our Grb2-binding inhibitors could have profound effects on breast cancer cells and, in turn, on tumor progression and spread,” Dr. Burke said.

Dr. Burke’s key collaborators on this project include CCR’s Dr. Don Bottaro, a senior scientist in the Urologic Oncology Branch, and Dr. Robert Fisher, head of the Protein Chemistry Laboratory, SAIC-Frederick.

### Understanding the Roles of Estrogens and SDF-1

To understand the role of estrogens in breast cancer, Dr. Michael Dean’s group in CIP is characterizing variation in the estrogen and progesterone receptor genes. These studies indicate that estrogen receptor variation plays a role in breast cancer (see “Newly Identified Genetic Variations May Affect Breast Cancer Risk,” [http://web.ncifcrf.gov/ThePoster/archive/Sep08\\_Poster\\_Newsletter\\_508\\_110508.pdf](http://web.ncifcrf.gov/ThePoster/archive/Sep08_Poster_Newsletter_508_110508.pdf)). Dr. Dean, head of the Human Genetics Section, is one of CIP’s deputy directors.

Another CIP deputy director, Dr. Joost Oppenheim, (chief, Laboratory of Molecular Immunoregulation), has found that approximately 50 percent of breast cancer cells and human melanomas spontaneously produce stromal cell-derived factor 1 (SDF-1). Because SDF-1 stimulates endothelial cells to vascularize tissues, his group is investigating whether these cancers use SDF-1 to induce their own blood supply.

CCR’s mission is to “inform and empower the entire cancer research community by making breakthrough discoveries in basic and clinical cancer research and by developing them into novel therapeutic interventions for adults and children afflicted with cancer or infected with HIV,” according to the CCR web site.

“NCI-Frederick’s breast cancer researchers clearly serve that mission by working toward a future that offers even longer periods of remission for cancer patients,” Dr. Wilttrout commented. ■

## Researchers Discover Regulator of Blood Cell Development in Bone Marrow Niche

By Nancy Parrish, Staff Writer

Jonathan Keller, Ph.D., has been intrigued by the bone marrow microenvironment since he was a graduate student at George Washington University, where he studied proteins involved in blood cell development. Today, Dr. Keller heads a laboratory that studies how stem cells give rise to blood cells, and how these processes contribute to hematopoietic malignancies.

Dr. Keller, Hyung Chan Suh, Ph.D., and colleagues in the Laboratory of Cancer Prevention, Center for Cancer Research, have specifically focused much of their recent research on the inhibitor of differentiation (Id) family of proteins, which regulate cell functions in a number of developmental processes, including the formation of nerve cells (neurogenesis), muscle tissue cells (myogenesis), and blood cells (hematopoiesis). In a recent article in *Blood*, the group published their discovery that one member of this family, Id1, is the physiological regulator of

blood cell development. For the first time, it was shown that Id1 is necessary for the proper functioning of the hematopoietic microenvironment, and thus, the development of normal blood cells.

According to Dr. Keller, blood cell development is maintained throughout life by hematopoietic stem cells and their interaction with cells present in the bone marrow microenvironment, or “niche.” Understanding how stem cells develop in their microenvironment could contribute to (1) improved methods of bone marrow transplantation needed to treat leukemia and other blood diseases; (2) improved cancer treatment by targeting the “soil” (microenvironment) where cancer cells live; and (3) improved methods for growing adult stem cells for transplantation, gene therapy, and regenerative medicine.

Dr. Keller says he is grateful for the opportunity to be “part of an NCI-NIH team and an international effort to



Jonathan Keller, Ph.D., Senior Principal Investigator, Basic Science Program, SAIC-Frderick, Inc., Laboratory of Cancer Prevention, Center for Cancer Research, NCI.

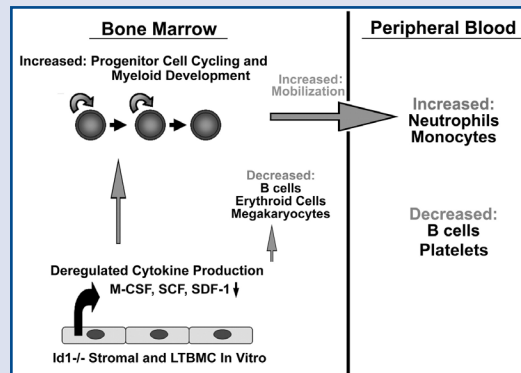
understand how stem cells sustain normal blood cell development, and applying this information to understand how to treat hematopoietic malignancies.” ■

## Cell non-autonomous function of Id1 in the hematopoietic progenitor cell niche

Hyung Chan Suh, Ming Ji, John Gooya, Michael Lee, Kimberly D. Klarmann, and Jonathan R. Keller  
*Blood 114:1186–1195, 2009*

Development of hematopoietic stem cells (HSCs) and their immediate progeny is maintained by the interaction with cells in the microenvironment. We found that hematopoiesis was dysregulated in Id1<sup>-/-</sup> mice. Although the frequency of HSCs in Id1<sup>-/-</sup> bone marrow was increased, their total numbers remained unchanged as the result of decreased bone marrow cellularity. In addition, the ability of Id1<sup>-/-</sup> HSCs to self-renew was normal, suggesting Id1 does not affect HSC function. Id1<sup>-/-</sup> progenitors showed increased cycling in vivo but not in vitro, suggesting cell nonautonomous mechanisms for the increased cycling. Id1<sup>-/-</sup> HSCs developed normally

when transplanted into Id1<sup>+/+</sup> mice, whereas the development of Id1<sup>+/+</sup> HSCs was impaired in Id1<sup>-/-</sup> recipients undergoing transplantation and reproduced the hematologic features of Id1<sup>-/-</sup> mice, indicating that the Id1<sup>-/-</sup> microenvironment cannot support normal hematopoietic development. Id1<sup>-/-</sup> stromal cells showed altered production of cytokines in vitro, and cytokine levels were deregulated in vivo, which could account for the Id1<sup>-/-</sup> hematopoietic phenotypes. Thus, Id1 is required for regulating the hematopoietic progenitor cell niche but is dispensable for maintaining HSCs.



Mice lacking Id1 show impaired blood cell development in the bone marrow and peripheral blood due to deregulated growth factor production in niche cells (identified as stromal cells in figure).

The following 40 articles have been selected from 13 of the most prestigious science journals published during the past quarter.

## Cell, Tumor, and Stem Cell Biology

**Padmakumar VC, Aleem E, Berthet C, Hilton MB, Kaldis P.** Cdk2 and Cdk4 activities are dispensable for tumorigenesis caused by the loss of p53. *Mol Cell Biol* 29(10):2582–2593, 2009.

## Cellular Immunology and Immune Regulation

**Petrovas C, Chaon B, Ambrozak DR, Price DA, Melenhorst JJ, Hill BJ, Geldmacher C, Casazza JP, Chattopadhyay PK, Roederer M, Douek DC, Mueller YM, Jacobson JM, Kulkarni V, Felber BK, Pavlakis GN, Katsikis PD, Koup RA.** Differential association of programmed death-1 and CD57 with ex vivo survival of CD8(+) T cells in HIV infection. *J Immunol* 183(2):1120–1132, 2009.

## Clinical Immunology

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## Developmental Biology

**Therapontos C, Erskine L, Gardner ER, Figg WD, Vargesson N.** Thalidomide induces limb defects by preventing angiogenic outgrowth during early limb formation. *Proc Natl Acad Sci USA* 106(21):8573–8578, 2009.

## DNA Dynamics and Chromosome Structure

**Fischer T, Cui BW, Dhakshnamoorthy J, Zhou M, Rubin C, Zofall M, Veenstra TD, Grewal SIS.** Diverse roles of HP1 proteins in heterochromatin assembly and functions in fission yeast. *Proc Natl Acad Sci USA* 106(22):8998–9003, 2009.

**Lou H, Yeager M, Li HC, Bosquet JG, Hayes RB, Orr N, Yu K, Hutchinson A, Jacobs KB, Kraft P, Wacholder S, Chatterjee N, Feigelson HS, Thun MJ, Diver WR, Albanes D, Virtamo J, Weinstein S, Ma J, Gaziano JM, Stampfer M, Schumacher FR, Giovannucci E, Cancel-Tassin G, Cussenot O, Valeri A, Andriole GL, Crawford ED, Anderson SK, Tucker M, Hoover RN, Fraumeni JF, Thomas G, Hunter DJ, Dean M, Chanock SJ.** Fine mapping and functional analysis of a common variant in MSMB

on chromosome 10q11.2 associated with prostate cancer susceptibility. *Proc Natl Acad Sci USA* 106(19):7933–7938, 2009.

**Macdonald CJ, Cheng RY, Roberts DD, Wink DA, Yeh GC.** Modulation of carcinogen metabolism by nitric oxide-aspirin 2 is associated with suppression of DNA damage and DNA adduct formation. *J Biol Chem* 2009.

**Rahrmann EP, Collier LS, Knutson TP, Doyal ME, Kuslak SL, Green LE, Malinowski RL, Roethe L, Akagi K, Waknitz M, Huang W, Largaespada DA, Marker PC.** Identification of PDE4D as a proliferation-promoting factor in prostate cancer using a “Sleeping Beauty” transposon-based somatic mutagenesis screen. *Cancer Res* 69(10):4388–4397, 2009.

## Enzyme Catalysis and Regulation

**Walmacq C, Kireeva ML, Irvin J, Nediakov Y, Lubkowska L, Malagon F, Strathern JN, Kashlev M.** Rpb9 subunit controls transcription fidelity by delaying NTP sequestration in RNA polymerase II. *J Biol Chem* 284(29):19601–19612, 2009.

## Evolution

**Driscoll CA, Macdonald DW, O'Brien SJ.** From wild animals to domestic pets, an evolutionary view of domestication. *Proc Natl Acad Sci USA* 106(Supplement 1):9971–9978, 2009.

## Gene Therapy

**Kim YJ, Kim YS, Larochelle A, Renaud G, Wolfsberg TG, Adler R, Donahue RE, Hematti P, Hong BK, Roayaei J, Akagi K, Riberdy JM, Nienhuis AW, Dunbar CE, Persons DA.** Sustained high-level polyclonal hematopoietic marking and transgene expression 4 years after autologous transplantation of rhesus macaques with SIV lentiviral vector-transduced CD34(+) cells. *Blood* 113(22):5434–5443, 2009.

## Genes, Structure, and Regulation

**Wei F, Zaprazna K, Wang J, Atchison ML.** PU.1 can recruit BCL6 to DNA to repress gene expression in germinal center B cells. *Mol Cell Biol* 2009.

## Genetic Epidemiology

**Tishkoff SA, Reed FA, Friedlaender FR, Ehret C, Ranciaro A, Froment A, Hirbo JB, Awomoyi AA, Bodo JM, Doumbo O, Ibrahim M, Juma AT, Kotze MJ, Lema G, Moore JH, Mortensen H, Nyambo TB,**

**Omar SA, Powell K, Pretorius GS, Smith MW, Thera MA, Wambebe C, Weber JL, Williams SM.** The genetic structure and history of Africans and African Americans. *Science* 324(5930):1035–1044, 2009.

## Genomics, Proteomics, and Bioinformatics

**Abreu RD, Sanchez-Diaz PC, Vogel C, Burns SC, Ko DJ, Burton TL, Vo DT, Chennasamudaram S, Le SY, Shapiro BA, Penalva LOF.** Genomic analyses of Musashi1 downstream targets show a strong association with cancer-related processes. *J Biol Chem* 284(18):12125–12135, 2009.

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**Suh HC, Ji M, Gooya J, Lee M, Klarman KD, Keller JR.** Cell non-autonomous function of Id1 in the hematopoietic progenitor cell niche. *Blood* 114(6):1186–1194, 2009.

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**Singh A, Zarembek KA, Kuhns DB, Gallin JI.** Impaired priming and activation of the neutrophil NADPH oxidase in patients with IRAK4 or NEMO deficiency. *J Immunol* 182(10):6410–6417, 2009.

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**Chen J, Nikolaitchik O, Singh J, Wright A, Bencsics CE, Coffin JM, Ni N, Lockett S, Pathak VK, Hu WS.** High efficiency of HIV-1 genomic RNA packaging and heterozygote formation revealed by single virion analysis. *Proc Natl Acad Sci USA* 106(32):13535–13540, 2009.

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**Keele BF, Jones JH, Terio KA, Estes JD, Rudicell RS, Wilson ML, Li YY, Learn GH, Beasley TM, Schumacher-Stankey J, Wroblewski E, Mosser A, Raphael J, Kamenya S, Lonsdorf EV, Travis DA, Mlengeya T, Kinsel MJ, Else JG, Silvestri G, Goodall J, Sharp PM, Shaw GM, Pusey AE, Hahn BH.** Increased mortality and AIDS-like immunopathology in wild chimpanzees infected with SIVcpz. *Nature* 460(7254):515–519, 2009.

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### Immunobiology

**Di Mascio M, Paik CH, Carrasquillo JA, Maeng JS, Jang BS, Shin IS, Srinivasula S, Byrum R, Neria A, Kopp W, Catalfamo M, Nishimura Y, Reimann K, Martin M, Lane HC.** Noninvasive in vivo imaging of CD4 cells in simian-human immunodeficiency virus (SHIV)-infected nonhuman primates. *Blood* 114(2):328–337, 2009.

**Lambert S, Bouttier M, Vassy R, Seigneuret M, Petrow-Sadowski C, Janvier S, Heveker N, Ruscetti FW, Perret G, Jones KS, Pique C.** HTLV-1 uses HSPG and neuropilin-1 for entry by molecular mimicry of VEGF(165). *Blood* 113(21):5176–5185, 2009.

**Shafer-Weaver KA, Watkins SK, Anderson MJ, Draper LJ, Malyguine A, Alvord WG, Greenberg NM, Hurwitz AA.** Immunity to murine prostatic tumors: continuous provision of T-cell help prevents CD8 T-cell tolerance and activates tumor-infiltrating dendritic cells. *Cancer Res* 69(15):6256–6264, 2009.

**Tai LH, Goulet ML, Belanger S, Toyama-Sorimachi N, Fodil-Cornu N, Vidal SM, Troke AD, McVicar DW, Makrigiannis AP.** Positive regulation of plasmacytoid dendritic cell function via Ly49Q recognition of class I MHC. *J Exp Med* 205(13):3187–3199, 2008.

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**Zhang ML, Yao ZS, Dubois S, Ju W, Muller JR, Waldmann TA.** Interleukin-15 combined with an anti-CD40 antibody provides enhanced therapeutic efficacy for murine models of colon cancer. *Proc Natl Acad Sci USA* 106(18):7513–7518, 2009.

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**Washington AV, Gibot S, Acevedo I, Gattis J, Quigley L, Feltz R, De La Mota A, Schubert RL, Gomez-Rodriguez J, Cheng J, Dutra A, Pak E, Chertov O, Rivera L, Morales J, Lubkowski J, Hunter R, Schwartzberg PL, McVicar DW.** TREM-like transcript-1 protects against inflammation-associated hemorrhage by facilitating platelet aggregation in mice and humans. *J Clin Invest* 119(6):1489–1501, 2009.

### Lymphoid Neoplasia

**Lucas DM, Edwards RB, Lozanski G, West DA, Shin JD, Vargo MA, Davis ME, Rozewski DM, Johnson AJ, Su BN, Goettl VM, Heerema NA, Lin TS, Lehman A, Zhang XL, Jarjoura D, Newman DJ, Byrd JC, Kinghorn AD, Grever MR.** The novel plant-derived agent silvestrol has B-cell selective activity in chronic lymphocytic leukemia and acute lymphoblastic leukemia in vitro and in vivo. *Blood* 113(19):4656–4666, 2009.

**Weldon JE, Xiang LM, Chertov O, Margulies I, Kreitman RJ, FitzGerald DJ, Pastan I.** A protease-resistant immunotoxin against CD22 with greatly increased activity against CLL and diminished animal toxicity. *Blood* 113(16):3792–3800, 2009.

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### Oncogene

**Satyanarayana A, Kaldis P.** Mammalian cell-cycle regulation: several Cdk, numerous cyclins and diverse compensatory mechanisms. *Oncogene* 2009.

### Protein Function, Structure, and Folding

**Gong R, Vu BK, Feng Y, Prieto DA, Dyba MA, Walsh JD, Prabakaran P, Veenstra TD, Tarasov SG, Ishima R, Dimitrov DS.** Engineered human antibody constant domains with increased stability. *J Biol Chem* 284(21):14203–14210, 2009.

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### Receptor Biology

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**McVicar DW, Trinchieri G.** CSF-1R, DAP12 and beta-catenin: a menage à trois. *Nat Immunol* 10(7):681–683, 2009.

### RNA Dynamics

**Kireeva ML, Kashlev M.** Mechanism of sequence-specific pausing of bacterial RNA polymerase. *Proc Natl Acad Sci USA* 106(22):8900–8905, 2009.

### Signal Transduction

**Fan HY, Liu ZL, Shimada M, Sterneck E, Johnson PF, Hedrick SM, Richards JS.** MAPK3/1 (ERK1/2) in ovarian granulosa cells are essential for female fertility. *Science* 324(5929):938–941, 2009.

**Ma BY, Nussinov R.** Amplification of signaling via cellular allosteric relay and protein disorder. *Proc Natl Acad Sci USA* 106(17):6887–6888, 2009.

**McKay MM, Ritt DA, Morrison DK.** Signaling dynamics of the KSR1 scaffold complex. *Proc Natl Acad Sci USA* 2009.

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### Transplantation

**Capitini CM, Herby S, Milliron M, Anver MR, Mackall CL, Fry TJ.** Bone marrow deficient in IFN-gamma signaling selectively reverses GVHD-associated immunosuppression and enhances a tumor-specific GVT effect. *Blood* 113(20):5002–5009, 2009. ■

## Breast Cancer: Research Aids Survival Rates

By Alberta Peugeot, Marla Mullen, Contributing Writers;  
and Maritta Perry Grau, Staff Writer

Ask women what they are most likely to die from, and they'll probably tell you breast cancer or heart disease. They're right about the heart disease: The Centers for Disease Control and Prevention (CDC) lists heart disease as the leading cause of women's deaths. But overall, deaths from breast cancer have decreased in the United States since 1990, according to the CDC. The seventh leading cause of death, breast cancer follows heart disease, cerebrovascular diseases, lung and bronchus cancer, chronic lower respiratory disease, Alzheimer's, and even accidental deaths, the CDC says.

Still, that means it's important to be screened early for breast cancer, to give yourself every possibility of better and earlier diagnosis and treatment. Research is truly helping to improve survival rates. According to some current research, with the best treatments, the 10-year, disease-free survival rates, depending on the type of cancer, range up to 98 percent.

### October: Breast Cancer Awareness Month

For some years October has been designated as Breast Cancer Awareness Month. NCI has long been in the forefront of breast cancer research (see our lead article in this issue, page 1, "CCR Explores New Approaches to Breast Cancer Research"). In addition, in 2007 NCI Director John E. Niederhuber, M.D., through NCI-Frederick, launched a three-year pilot program of community cancer centers ("Bringing Treatments Closer to Home," *Poster*, March 2007, page 3 [[web.ncifcrf.gov/ThePoster/archive/Mar07\\_POSTER.pdf](http://web.ncifcrf.gov/ThePoster/archive/Mar07_POSTER.pdf)]).

According to the NCCCP web site, qualified patients at selected hospitals and other centers now "have easier access to NCI-sponsored treatment trials for five common cancer types, including breast,

colon/rectum, kidney, lung, and non-Hodgkin lymphoma. Their participation provides researchers [with] a larger, more diverse cohort of patients to test new approaches, helping to speed the delivery of new cancer drugs to the public" (see [ncccp.cancer.gov/2009\\_Newsletter.pdf](http://ncccp.cancer.gov/2009_Newsletter.pdf)).

### Do You Know Your Personal Risk Factors for Developing Breast Cancer?

Not only your ethnic background, but also your age and health history can affect your risk of developing breast cancer: Breast cancer is the most common cause of cancer death in Hispanic women and the second most common cause of cancer death in white, black, Asian/Pacific Islander, and American Indian/Alaska Native women, the CDC states.

Anything that increases your chance of getting a disease is called a risk factor. Risk factors for breast cancer include the following:

- Age 60 or greater
- Menstruating before age 11
- Older age when you first give birth or never having given birth
- A personal history of breast cancer or benign (noncancerous) breast disease
- A mother or sister with breast cancer

- Treatment with radiation therapy to the breast/chest
- Breast tissue that appears dense on a mammogram
- Taking hormones such as estrogen and progesterone
- Drinking alcoholic beverages
- Being Caucasian

### When's the Last Time You Had a Mammogram?

NCI recommends that to find breast cancer early, you should have a mammogram every one to two years if you are 40 or older. If you are younger than 40 and have risk factors for breast cancer, consult a health care provider about having a baseline mammogram done.

Mammograms, a kind of X-ray of breast tissue, can often reveal a breast lump before it can be felt. If an abnormal area shows up on your mammogram, you may need to have more X-rays or a biopsy, the only sure way to tell if cancer is present.

Mammograms (as well as dental X-rays and other routine X-rays) use very small doses of radiation. The risk of any harm is very slight, but you should talk with your health care provider about the need for each X-ray and ask for shields to protect parts of your body that are not in the picture.

For more information about performing a breast self-exam, contact OHS at 301-846-1096.

## Breast Cancer Awareness

This article was based on the following cancer information web sites. Please visit these sites for further information.

- [www.cancer.gov/cancertopics/wyntk/breast/page5](http://www.cancer.gov/cancertopics/wyntk/breast/page5)
- [www.cancer.gov/cancertopics/pdq/treatment/breast/patient](http://www.cancer.gov/cancertopics/pdq/treatment/breast/patient)
- [www.cdc.gov/cancer/breast/statistics/](http://www.cdc.gov/cancer/breast/statistics/)
- [ncccp.cancer.gov/2009\\_Newsletter.pdf](http://ncccp.cancer.gov/2009_Newsletter.pdf)
- [www.hopkinsbreastcenter.org](http://www.hopkinsbreastcenter.org)
- [www.nlm.nih.gov/medlineplus/breastcancer.html](http://www.nlm.nih.gov/medlineplus/breastcancer.html) ■

## 2,500,000 Live with History of Breast Cancer

By Diana Conrad, Contributing Writer

In the United States, breast cancer is the most common non-skin cancer and the second leading cause of cancer-related death in women. It is likely that you or someone you know has been touched by breast cancer. In 2009, it is estimated that 192,370 U.S. women and 1,910 U.S. men will be diagnosed with breast cancer. Approximately 45,000 men and women in the United States will die as a result of breast cancer. Based on historical rates, **1 in 8 women will be diagnosed with breast cancer during their lifetime**, and at any given moment, in the U.S. there are approximately 2,500,000 women alive who had a history of breast cancer.

Although the breast cancer diagnosis rate has increased since the early 1990s, the overall breast cancer death rate has dropped steadily. The incidence of breast cancer is highest in whites, but African Americans have higher mortality rates than any other racial or ethnic group in the United States. The gap in mortality between African Americans and whites is wider now than it was in the early 1990s.

### NCI Develops Programs for Breast Cancer Research

It is estimated that approximately \$8.1 billion is spent in the United States each year on treatment of breast cancer. The NCI's investment in breast cancer research increased from \$548.7 million in fiscal year 2003 to \$572.4 million in fiscal year 2007.

Examples of NCI activities:

- Eleven breast cancer-specific Specialized Programs of Research Excellence are moving results from the lab to the clinical setting.
- The Trial Assigning Individualized Options for Treatment (Rx) is determining whether genes associated with a risk of recurrence in women with early-stage breast cancer can be used to identify the most appropriate and effective treatments for these women.
- Cancer Genetic Markers of Susceptibility (CGEMS) is identifying genetic alterations that make people susceptible to prostate and breast cancer. Scientists are using DNA from five large studies of prostate cancer to scan the genome for common genetic differences between patients who have these cancers and those who do not have cancer.
- The Breast Premalignancy Program supports multidisciplinary efforts to characterize the genetic, molecular, and/or cellular changes in human breast cancer premalignancy.
- The Breast and Gynecologic Malignancies Faculty facilitates interactions among basic, epidemiological, and clinical researchers to promote a community of investigators who work together for the prevention, diagnosis, and cure of breast cancer.
- The Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation study is comparing the effectiveness of two molecular targeted therapies, lapatinib (Tykerb) and trastuzumab (Herceptin). The trial is also assessing the effectiveness of a combination of these drugs on early-stage breast cancer that is positive for the HER2 protein.

- The NCI Breast Cancer Home Page directs visitors to up-to-date information on breast cancer treatment, prevention, genetics, causes, screening, testing, and other topics – <http://www.cancer.gov/breast>.

### Recent Advances in Breast Cancer Research

- A recent study showed that magnetic resonance imaging (MRI) can identify cancers in the opposite breast in women with newly diagnosed breast cancer that might otherwise be missed by standard mammography and clinical breast exams.
- The U.S. Food and Drug Administration has approved raloxifene (Evista) to reduce the risk of invasive breast cancer in postmenopausal women at high risk of the disease and those with osteoporosis.
- Vaccinating breast cancer-infected mice with a modified form of a virus containing proteins from breast cancer cells can kill large breast cancer tumors.
- A new computational model more accurately estimates the risk of invasive breast cancer in African American women.

For more information, go to:  
NCI – A Snapshot of Breast Cancer  
<http://www.cancer.gov/aboutnci/servingpeople/breast-snapshot.pdf>  
Cancer Stat Fact Sheet on Breast Cancer  
<http://seer.cancer.gov/statfacts/html/breast.html> ■

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## Clean Hands Help Prevent Influenza Spread

By Scott Keimig, Guest Writer,  
Environment, Health, and Safety

Keeping your hands clean helps you avoid getting sick or spreading the influenza virus to others if you are sick. It is best to wash your hands with soap and warm water for 20 seconds (sing a verse of "Yankee Doodle"). However, when water is not available, you can substitute alcohol-based products (sanitizers) made for cleansing hands.

### When Should You Wash Your Hands?

- After caring for someone who is sick;
- After blowing your nose, coughing, or sneezing;
- After handling trash that contains used tissues, etc.;
- Before preparing or eating food; and
- After using a restroom.

## Washing with Soap and Water

- Place your hands together under water (warm water if possible).
- Rub your hands together for at least 20 seconds (with soap if possible). Wash all surfaces well, including wrists, palms, backs of hands, fingers, and under the fingernails.
- Thoroughly rinse the soap from your hands.
- Gently dry your hands with a clean towel. If you use a disposable towel, throw it in the trash.

### Using Alcohol-based Hand Sanitizers

If soap and water are not available, you can use alcohol-based hand sanitizers. Sanitizer formulations should be greater than 60% alcohol; it is important to realize that sanitizers are less effective than using a 20-second scrub with soap and water.

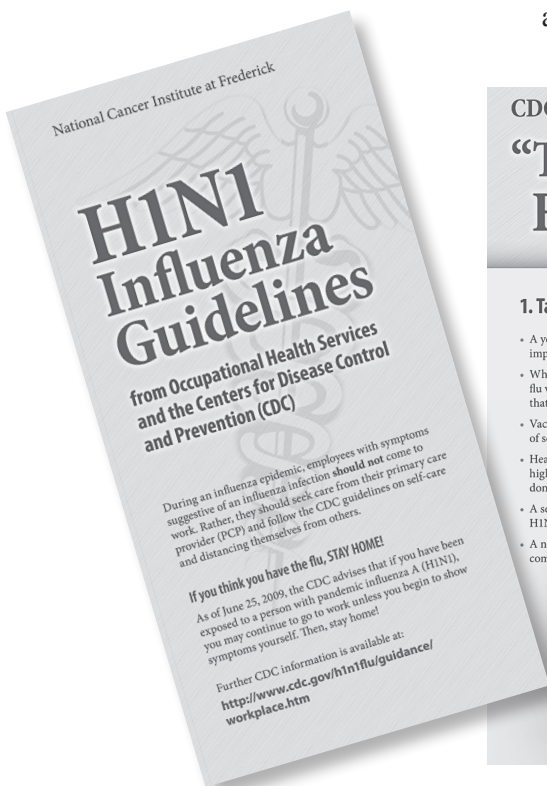
Thoroughly rub the sanitizer over all surfaces of your hands and fingers until the alcohol evaporates and your hands are dry.

Antiseptic towelettes (often provided at grocery stores to sanitize the handles of shopping carts) can be used on hard-surfaced items that other people have touched. The chemical antiseptics (some are alcohol-based and some are not) should be allowed to dry before you handle them, as they can cause skin irritation. Do not use these towelettes directly on your skin unless the manufacturer states that this may be done.

Note: The volume of alcohol-based and other chemical sanitizers needed to reduce the number of virus particles and other germs on your hands varies by product. Also, the frequent use of alcohol-based sanitizer can remove skin oils and cause dry skin and chapping.

This information has been adapted from guidance offered by the DHHS Centers for Disease Control and Prevention. <http://emergency.cdc.gov/disasters/handhygienefacts.asp>

If you'd like to view a CDC video on hand-washing procedures, go to <http://www.youtube.com/watch?v=XHISH559oho>. The video is a good one to use with your children or to use if you're a more visual learner. ■



CDC Says:

## “Take 3” Steps to Fight the Flu

These actions will protect against the new H1N1, too!

Flu is a serious, contagious disease. Each year in the United States, on average, more than 200,000 people are hospitalized and 36,000 people die from seasonal flu complications, according to the Centers for Disease Control and Prevention (CDC).

This flu season could be worse: A new and very different flu virus is spreading worldwide. Called novel or new H1N1 flu, this virus may cause more or more severe illnesses than in most flu seasons.

### 1. Take time to get vaccinated.

- A yearly seasonal flu vaccine is the first and most important step in protecting against seasonal influenza.
- While there are many different flu viruses, the seasonal flu vaccine protects against the three seasonal viruses that research suggests will be most common.
- Vaccination is especially important for people at high risk of serious flu complications.
- Health care workers and others who live with or care for high-risk people should get a seasonal flu vaccine, so they don't pass the flu to those at high risk.
- A seasonal vaccine will not protect you against novel H1N1 flu.
- A new vaccine against novel H1N1 will be available in the coming months.

### 2. Take everyday preventive actions.

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue away after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.\*
- Avoid touching your eyes, nose, or mouth, since those are gateways to introduce germs into your body.
- Try to avoid close contact with sick people.
- If you are sick with a flu-like illness, CDC recommends that you stay home for at least 24 hours after your fever is gone, except to get medical care or for other necessities (Your fever should have abated without your using a fever-reducing medicine).
- While sick, limit contact with others so that you don't infect them.
- Visit the CDC web site (<http://www.cdc.gov/h1n1flu/>) to find out what to do if you or someone at home is sick with the flu.

\* Although the scientific evidence is not as extensive as that on hand-washing and alcohol-based sanitizers, other hand sanitizers that do not contain alcohol may be useful for killing flu germs on hands in settings where alcohol-based products are prohibited.

<http://www.cdc.gov/flu/protect/preventing.htm>

### 3. Take flu antiviral drugs if your doctor recommends them.

- If you get seasonal or novel H1N1 flu, use antiviral drugs to treat the flu.
- Antiviral drugs are prescription medicines (pills, liquid, or an inhaled powder) that fight against the flu by keeping flu viruses from reproducing in your body.
- Antiviral drugs can make your illness milder and make you feel better faster. They may also prevent serious flu complications.
- Antiviral drugs are not sold over-the-counter and are different from antibiotics.
- Antiviral drugs may be especially important for people who are very sick (hospitalized) or people who are sick with the flu and who are at increased risk of serious flu complications, such as pregnant women, young children, and those with chronic health conditions.
- For treatment, antiviral drugs work best if started within the first two days of symptoms.
- Flu-like symptoms include fever (usually high), headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, muscle aches, and sometimes diarrhea and vomiting.

“Take 3”: Occupational Health Services has published a brochure to help you “take 3”—that is, three steps to help avoid the flu, whether it's seasonal or H1N1.



## Tragic Accident Serves as Powerful Reminder

By Gretchen Howlett, Guest Writer,  
Environment, Health, and Safety

In December 2008, an accident occurred in a biochemistry laboratory at the University of California, Los Angeles (UCLA), as a 23-year-old technician was drawing *tert*-butyllithium (t-butyllithium) into a syringe. T-butyllithium is stored in pentane because it is a pyrophoric chemical, meaning that it ignites with air. The syringe plunger was either ejected or pulled out of the syringe, and the liquid chemical splashed onto the technician's hands, arm, and torso, immediately igniting her gloves and flammable synthetic sweatshirt. She was not wearing a lab coat. The technician later died of her injuries.

The California Division of Occupational Safety investigated the fatality and fined UCLA for having no documented training on the use of t-butyllithium and for lack of proper personal protective equipment (PPE). A UCLA safety investigation stated that the fume hood sash was kept too high and a blast shield was not used.

During a previous inspection, UCLA's safety department had cited the laboratory for lack of PPE and improper storage of pyrophoric chemicals, but the deficiencies were never corrected. Whether wearing a lab coat could have saved the technician's life is debatable, but a lab coat would likely have been much easier to remove than a burning synthetic sweater.

## Supervisors, Take Note!

This tragic accident illustrates the importance of implementing a positive safety culture in a laboratory environment. Training and enforcement by supervisors are vital to creating a culture in which employee safety practices and behaviors are consistent and proactive. While not every safety infraction will result in loss of life, all behaviors are important because they contribute to an overall attitude about safety.

According to the NCI-Frederick Chemical Hygiene Plan, supervisors are accountable for training staff members on hazards in their work areas. Environment, Health, and Safety (EHS) staff members provide general training in new-employee orientation and are available to assist supervisors in more specific training.

For help with substance-specific training, or to request chemical exposure monitoring, please do not hesitate to call EHS at 301-846-1451.

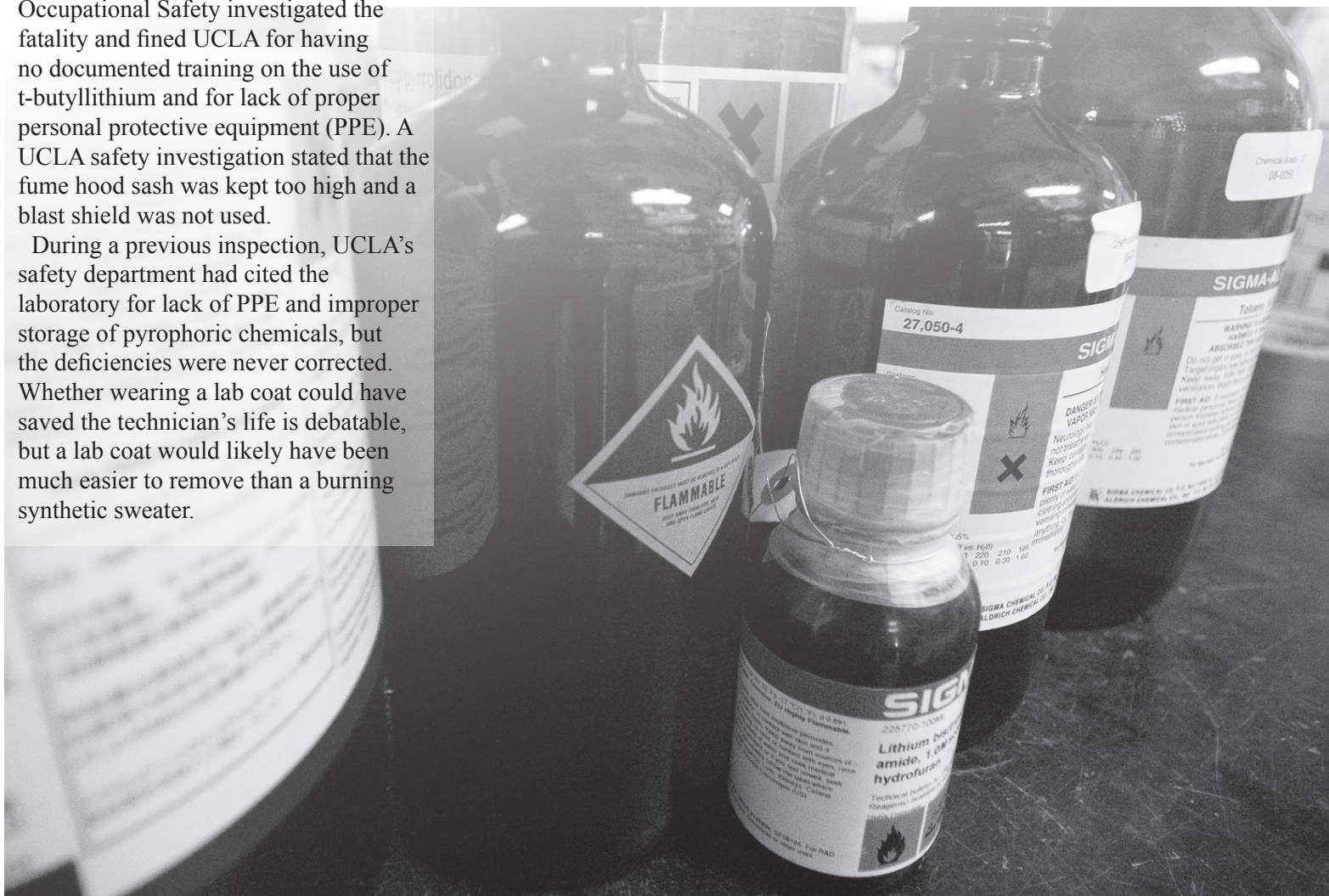
A Material Safety Data Sheet on *tert*-butyllithium is available at: <http://www.coleparmer.com/catalog/Msds/11482.htm>.

*For further information, read:*

Leiff Benderly, B. Explosions in the Lab: What Can Be Learned from a Young Biochemist at UCLA? [www.slate.com](http://www.slate.com), posted May 22, 2009.

Kemsley, J. Negligence Caused UCLA Death, *Chemical and Engineering News* 87(19):7, May 11, 2009.

Christensen, K. Deadly UCLA Lab Fire Leaves Haunting Questions. *Los Angeles Times*. March 1, 2009, <http://articles.latimes.com/2009/mar/01/local/me-uclaburn1>. ■



## You Can Prevent Pests from Entering Your Home this Fall

By Ashley DeVine, Staff Writer

(Editor's Note: Special thanks to Doug Vaughn, FME, for providing information for this article.)

It's the time of year when the weather turns colder, bringing with it the possibility of unwanted pests entering homes in search of food and warmth. Some of the pests you might see are ants, lady bugs, boxelder bugs, crickets, stink bugs, cockroaches, and mice. There are ways to keep these pests out of your home without the use of pesticides.

NCI-Frederick uses an Integrated Pest Management (IPM) system, which relies on the use of pest and environmental information to manage pests, using the best methods possible, the most economical means possible, and in a way that minimizes hazards to people, property, and the environment. IPM uses prevention methods such as proper sanitation, structural repairs, and trimming/upkeep of brush close to structures. IPM uses non-pesticidal pest control methods such as trapping, screening, caulking, steam cleaning, power washing, and freezing, and only uses pesticides as a last resort.

### General Pest Control Tips from the National Pest Management Association (NPMA):

- Seal cracks and holes around the home, including entry points for utilities and pipes, and replace weather stripping and loose mortar around the basement and windows.
- Wipe counters frequently to remove food debris, and store food in sealed containers.
- Keep tree branches and other shrubbery trimmed and away from the house.
- Keep basements, attics, and crawl spaces dry and well ventilated.
- Store garbage in sealed containers and dispose of it regularly.

- Replace any deteriorating wood around the house.
- Store firewood at least 20 feet away from the house and five inches off the ground.
- Look for rodent droppings and gnawing marks near food sources, which could indicate a pest problem.
- Install a proper drainage system at a building's foundation to channel water away from it.

For a more expansive list, go to [http://www.whatisipm.org/whatls\\_techniques.asp](http://www.whatisipm.org/whatls_techniques.asp).

### Proper Sanitation

Proper sanitation can prevent infestations by denying food to pests. Make sure to wash dishes immediately after eating and clean food particles from kitchen appliances and the floor. Vacuuming can be used to control infestations from ants, lady bugs, and crickets, and the use of steam cleaning equipment for kitchen areas is encouraged.

### Structural Repairs

Structural repairs such as caulking and sealing cracks and openings around

pipes, and using screens and door sweeps minimize pest access to your home. If you identify how a pest entered your home, you can seal that area.

### Habits of Common Household Pests

**Carpenter ants** nest in decaying wood, a habit that can result in structural damage.

**Asian lady beetles (ladybugs)** may enter the home to overwinter, but are not harmful, and can be controlled by the use of preventative physical barriers.

**Boxelder bugs** enter structures to overwinter and can discolor curtains, drapes, clothing, and other places where they rest. They also produce an odor if they are crushed or disturbed.

**Crickets** are normally found in moist environments such as mulched areas, unweeded plant beds, and around woodpiles, stones, and other debris. Indoors, they may cause damage to fabrics.

*continued on page 11*



From left corner, clockwise: 1) Mouse Bait Station—used outside, tamper-resistant, prevents access by other animals and people; 2) Multi-catch Trap—can hold up to 30 mice; also used as insect monitor when glueboard is inside; 3) Low-profile Mouse Trap—catches up to four mice, can be used anywhere in the home; 4) Insect Bait Arena—for cockroaches and ants, ready-to-use solid bait, tamper-resistant; 5) Wooden Snap Trap—designed to quickly and humanely kill mice; 6) Insect Bait Gun—used to inject insecticide gel baits into crevices where insects hide.

# Fire Safety

## Stay Fire Smart! Don't Get Burned!

By Tim Rowe, Guest Writer,  
Environment, Health, and Safety

Do you know what to do if a fire breaks out in your area? October is traditionally the national observance of fire safety. So, next month, the Environment, Health, and Safety Program (EHS) will join forces with the National Fire Protection Association (NFPA) to remind you to "Stay Fire Smart! Don't Get Burned."

### Are You Prepared for a Fire?

During this year's fire safety campaign, firefighters and safety advocates will focus on ways to help you keep your buildings fire-safe and on ways you can prevent painful burns. According to NFPA research, each year roughly 3,000 people die as a result of building fires and burns, and more than 200,000 individuals are seen in the nation's emergency rooms for burn injuries. Please visit the display in Building 549 during October for free handouts and more information on how to prevent devastating burn

injuries and keep buildings safe from fire. EHS will also conduct evacuation drills to practice escaping from a building in case a fire or other emergency occurs. Although it's difficult to predict the unexpected, reviewing the information below and taking action will help you plan your escape. And don't forget to practice your plan when the alarm sounds in your building!

### Nine Fire Safety Tips to Keep You Safe

When you hear the evacuation alarm or are told to evacuate the building:

1. Remain calm.
2. Immediately cease all operations that may become hazardous.
3. Leave quickly, without running.
4. During normal business hours, the supervisor in each area is responsible

- for ensuring that all occupants evacuate the area. In addition, you should check that all others in your area are leaving as instructed.
5. During other-than-normal business hours, quickly check nearby restrooms, copier rooms, equipment rooms, etc., for personnel as you exit.
6. Accompany and assist handicapped personnel, visitors, and any co-workers who appear to need calm direction or assistance.
7. Shut all doors behind you as you go. Closed doors can slow the spread of fire, smoke, and water.
8. Proceed as quickly as possible in an orderly manner. Do not push or shove. Hold handrails when you are walking on stairs.
9. Once outside, move away from the building to your designated assembly area.

For more information, view the NCI-Frederick Fire Emergency Evacuation Plan on the EHS web site at <http://home.ncifcrf.gov/ehs/uploadedFiles/EMERGENCY%20ACTION%20PLAN.doc>. Or contact Tim Rowe, EHS, 301-846-1903. ■



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**Brown marmorated stink bugs**, which produce an odor when killed or disturbed, were first identified in 2001. They are generally harmless to humans, but cause damage to fruits.

**House mice** eat and contaminate food, transmit diseases, and can cause damage by gnawing. They can squeeze through a hole as small as a nickel.

**Cockroaches** can transmit diseases and cause allergic reactions. The most common type, the German cockroach, is attracted to the warm, humid areas of a structure.



If you have a pest infestation, visit the NPMA's web site for tips about finding a professional: <http://www.pestworld.org/for-consumers/tips-for-finding-a-pro>. You can also contact Doug Vaughn, FME, at 301-846-7374 or [vaughnd@ncifcrf.gov](mailto:vaughnd@ncifcrf.gov).

#### Sources:

NPMA: [www.pestworld.org](http://www.pestworld.org)

NPCA *Field Guide to Structural Pests* by Eric H. Smith and Richard C. Whitman  
The Environmental Protection Agency: [www.epa.gov/opp00001/factsheets/ipm.htm](http://www.epa.gov/opp00001/factsheets/ipm.htm)  
MD Department of Agriculture: [www.mda.state.md.us/pdf/ipmstruc.pdf](http://www.mda.state.md.us/pdf/ipmstruc.pdf)  
Northeastern IPM Center: [www.neipmc.org/grants/partnership/2004/HolkoPUBaw04Prod05.pdf](http://www.neipmc.org/grants/partnership/2004/HolkoPUBaw04Prod05.pdf)

For pictures of common pests: <http://www.pestworld.org/for-consumers/pest-guide> ■



## Then and Now

### Building 1052

*By Ashley DeVine, Staff Writer, and Rocky Follin, Guest Writer, Facilities Maintenance and Engineering*

Located off Beasley Drive and across the street from Building 549, Building 1052 was transported to NCI-Frederick in the fall of 1989. The two-story, 12-section modular building was manufactured in Texas and brought to Frederick by truck. It was built to provide office space for the Developmental Therapeutics Program and the Biological Resources Branch. The building's site was chosen because of size and proximity to utilities and parking.

The building is composed of a steel frame, metal stud walls, a concrete floor, and a membrane roof. The original siding, which was sprayed stucco over plywood, was replaced in 1992 with thin brick siding. The brick siding began to fall off the building due to an adhesive problem in 2002 and

2009



1989



was replaced with EIFS (exterior insulation and finish system) siding in 2006.

Building 1052 is currently occupied by the Molecular Targets Development Program, the Laboratory of Computational Technologies, the Screening Technologies Branch, the Developmental Therapeutics Program, and the Biological Resources Branch. ■

## Building 350 Parking Lot

### At NCI-Frederick, Parking Means a Lot

*By Maritta Perry Grau, Staff Writer, and John Bell, Guest Writer, Facilities Maintenance and Engineering*

One topic of conversation that never grows stale at NCI-Frederick is that of parking. In many areas, by 8:30 a.m., it's hard to find any free spaces. In a few weeks, however, those who park near Building 350 will find that congestion somewhat alleviated.

You've probably already noticed that the 1.5-acre lot adjacent to Building

350's parking lot is undergoing some construction. The crews are installing an underground storm water retention structure and an underground sand filter, as Maryland requires.

This system will ensure that the new impervious parking lot surface does not increase the probability of flash floods in the Carroll Creek watershed. When that storm-drainage work is complete, the lot will be paved, providing an additional 100 parking spaces that you will access through the existing parking lot entrance.

Most of the excavated material is being trucked off site and replaced with clean,

graded, crushed stone for fill. What you may see now—but won't see when the work is complete—is a series of 42"-diameter corrugated metal pipes laid in an interconnected grid under a large portion of the new parking lot. These pipes will collect and hold the runoff of rain water, gradually feeding the water through the sand filter structure, where the sand filter bed will retain motor oil and other contaminants before the water is released into the storm drainage system.

The contractor is scheduled to complete the entire project by the end of the year. ■

# Campus Improvement Committee



Last spring, the Campus Improvement Committee provided seeds for volunteers to plant, and a few weeks later, baby plants to tuck into little gardens, edge shrubs, and brighten numerous spaces on our campus. Pictured is Guity Mohammadi, CCR-Frederick Flow Cytometry Core Laboratory, who planted and has cared all summer for the yellow and gold marigolds fronting the Building 560 parking lot. ■

## Farmers' Market

### Farmers' Market Offers Seasonal Goodies

*By Nancy Parrish, Staff Writer*

The Farmers' Market at NCI-Frederick will continue to offer a variety of seasonal produce, plants, herbs, Angus beef, baked goods, and other delectable food items, as well as hand-crafted gift items and a variety of skin care products, through October.

Raffles will be held throughout the season, so be sure to stop by. You may be the lucky winner of a raffle item donated by a market vendor. You do not have to be present to win. Market hours are 11:00 a.m. until 1:30 p.m. every Tuesday through October 27.

Holiday Markets will take place on November 24 and December 15. These special markets offer lots of freshly baked pies, cookies, cakes, and breads, dip mixes, salsas, jams and jellies, and many other food items that are perfect for holiday meals. You may even place an advance order for many items.

Local crafters and artisans will also be on hand to provide you with a great opportunity for holiday shopping.

Watch your e-mail and bulletin boards for more information! ■



### Frank Briggs Helps Bring Toastmasters to NCI-Frederick

By Ashley DeVine, Staff Writer

Three years ago, it was unlikely for anyone to find Frank Briggs, HVAC Mechanic, Facilities Maintenance and Engineering (FME), SAIC-Frederick, speaking to a crowd. Back then, he was “terrified” of public speaking, but was thrown into it through an administrative position at his church. Flash forward to today, and Mr. Briggs now says he enjoys an audience.

What changed three years ago was that Mr. Briggs joined the Winchester, Virginia, Toastmasters’ Club, which is part of Toastmasters International, a nonprofit organization that helps people develop communication and leadership skills. And just this year, Mr. Briggs helped bring a club to NCI-Frederick.

Public speaking is very different from what Mr. Briggs does each day as a Heating, Ventilation, and Air Conditioning (HVAC) Mechanic. “Toastmasters has taught me to think before I speak, organize my thoughts in a logical manner in a short period of time, and use the proper words for the situation at hand,” he said.

Mr. Briggs’ job involves working with freezers, walk-in boxes, refrigerators, and freeze dryers. “We have some unique equipment here that I wouldn’t get to work on anywhere else because it’s a research facility,” said Mr. Briggs, who has worked at SAIC-Frederick for 11 years. Some of this equipment includes -80°C cascade freezers, -120°C autocascade freezers, and continuous-run, walk-in boxes that remain at constant temperatures.

When fixing a piece of equipment, Mr. Briggs will go through a process of diagnosing the problem, repairing the equipment, putting it back in service, and letting the customer know the equipment is repaired. Troubleshooting equipment is his favorite part of the job. “It’s a challenge to go in and try to troubleshoot a piece of equipment, find out what’s wrong with it, and be able to repair it,” he said.



Frank Briggs, HVAC Mechanic, Facilities Maintenance and Engineering (FME)

Mr. Briggs contributes to the mission of the National Cancer Institute by repairing scientific equipment so research in laboratories can continue. “It’s a nice feeling to be involved with that and be able to say we are helping look for the cure for cancer and AIDS by keeping the equipment functioning,” he said.

Mr. Briggs has a Virginia master mechanical license for HVAC and a Maryland journeyman’s license for HVAC. He earned these licenses by completing a four-year apprentice program that consisted of on-the-job training and attending classes at Craft Masters Associated Builders and Contractors school. Mr. Briggs also earned a certification for handling chlorofluorocarbon refrigerants by attending training and passing a four-part test.

Mr. Briggs, who is a Toastmasters’ division governor, got the idea to start a club at NCI-Frederick from a fellow division governor. As a division governor, which is an elected position,

Mr. Briggs oversees three area governors and 15 clubs, and shares his knowledge and experience with the clubs to help them with any problems they might have. He presented the idea for a club to Sukanya Bora, Training Manager, who was already looking into it. When Ms. Bora asked Mr. Briggs if he would be in charge of starting an NCI-Frederick club, “I said I’d love the opportunity to start one here,” Mr. Briggs said.

#### Join the Toastmasters’ Club at NCI-Frederick

The NCI-Frederick Toastmasters’ Club is open to NCI-Frederick and Fort Detrick employees, as well as anyone with access to Fort Detrick. Visitors are always welcome.

The club meets every other Thursday from 5:30 p.m. to 6:30 p.m. in the Building 426 conference room.

You can contact Mr. Briggs at 301-846-5005 for more information.

A typical meeting begins when the Sergeant-at-Arms bangs the gavel and introduces the club president, Patti Jenkins, Secretary, Center for Advanced Preclinical Research. The club discusses past and current business matters, and then three speakers are introduced who have prepared speeches. After the speeches are finished, table topics are chosen, and three people are asked to speak extemporaneously about each of the topics. Next, all the speakers are evaluated. “The evaluations are done in a positive, supportive, friendly environment that inspires the speakers to want to give more speeches and continue to improve,” Mr. Briggs said. “[Evaluators] try to give you concrete examples that you could incorporate into your next presentation.”

To learn more about how Toastmasters can help you improve your communication and leadership skills, go to <http://www.toastmasters.org/Members/MembershipBuilding/DVDClips.aspx>. ■

### Victoria Gou: Succeeding through Trial and Error

By Nancy Parrish, Staff Writer

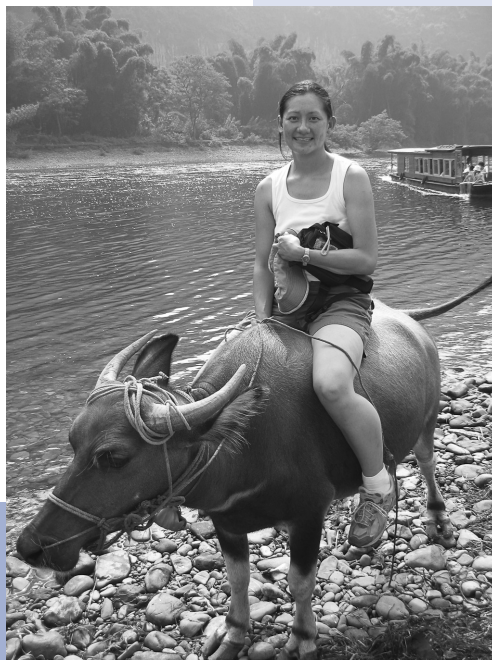
Victoria Gou views life as an experiment, with “a good bit of trial and error.” However, with each experience, she says, she has gained valuable personal insights. Her work has evolved into “a strong professional fit, [in which] I continually draw on the unique and versatile skills I developed along the way.”

A Werner H. Kirsten student intern mentored by Donald Blair, Ph.D., in the Laboratory of Molecular Oncology in 1993–94, Ms. Gou’s career path has taken her to the other side of the world and back. A 1994 graduate of Governor Thomas Johnson High School in Frederick, she majored in civil and environmental engineering at Duke University. In 2000, she earned a master’s degree in environmental engineering sciences from the University of Florida. “In other words,” she said, “I attended more school to become a solid waste engineer!”

After nearly four years “thrashing around landfills all across Florida and the Carolinas,” she said, she “traded in the hardhat for a sleek, little laptop.” As a web associate for the Feminist Majority Foundation, a political advocacy nonprofit outside Washington, DC, she “grew fascinated by technology and its potential to effect positive change.”

Two years later, Ms. Gou said, she needed “an overseas adventure to pull me out of autopilot,” so she moved to Shanghai, China, where she taught business English to corporate clients. She also freelanced as a writer for IBM Shanghai in their E-Learning Division.

In late 2006, her husband’s work brought them back to the States. Today she manages the web site for the Midpeninsula Regional Open Space District ([openspace.org](http://openspace.org)), a public agency in the San Francisco Bay Area dedicated to the preservation of green space.



Former intern Victoria Gou believes in seeking out new experiences, including riding an ox in Guilin, China. Ms. Gou lived in Shanghai, China, for two years.

Ms. Gou believes her internship taught her to explore new things. As with scientific research, life is filled with “a steady stream of questions, a constant search for answers,” she commented. “Sometimes the answers align with the expectations; other times they only feed more questions.” The diversity of her career path has made her a stronger person. “I have worked in different fields, held different positions...but with each experience, I have learned more about myself and my capacity for change/growth.”

### Have Patience...Seek New Experiences

Her advice to today’s interns is to remember that “building skills takes time.” She recalled that when she was learning to use the automatic pipetter, “so many perfectly good pipettes suffered a premature end: I grabbed their sterile tips

with my gloves; I clanked them against the hood glass or the outer flask; I sucked media straight into their cotton plugs.... Ultimately, with patience and practice, I became a pipetting master!”

She also advises students to seek out new experiences: “Don’t be afraid to wander, explore, and learn new things. Diverse experiences only equip you with a more comprehensive toolkit (of skills), which in turn, improves your ability to navigate through future roadblocks.” ■

### What It’s Really Like To Be an Intern

Sixteen years ago, Victoria Gou wrote an essay that reflects how it feels to be a student intern. The following is an excerpt:

*At seven o’clock in the morning, I walk on the spotless, white tiles of Building 469....I put on my lab coat and slip on small, powdered gloves.*

*My cells must be dying. They have suffered the entire four-day weekend without food. Fearful of what I may see, I am reluctant to view them. I place the plate on the stage and turn on the light. Thousands of shriveled, dead cells float in the media. Few cells remain attached to the plate. The casualties are high. To clear the scene of destruction, I remove the media and add four milliliters of fresh solution. I view the plate again. I see rounded cells, shriveled cells, flat cells. Which are transformed? Which are normal?*

*I look at the plate for a long time. My eyes become strained and my mind frustrated. How can I differentiate? Is this a technique acquired through time, or am I simply incompetent?*

To view Ms. Gou’s complete essay, see the online version of the *Poster*, [page 33](#).



**Congratulations to the June 2009 Poster Puzzler Winner!** Cheryl Parrott, Director of Communications, NCI-Frederick, is pictured, left, with Paul Miller, Executive Editor of the *Poster*. ■

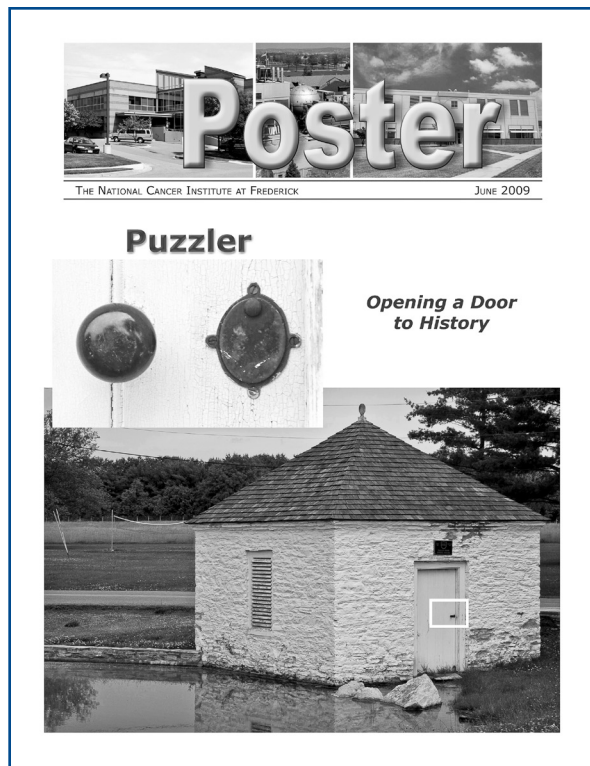
## *The Poster Puzzler:*

### **Opening a Door to History**

*By Ashley DeVine, Staff Writer*

The June Puzzler is the doorknob of the Nallin Pond Spring House. Built about 1835, the house is a whitewashed, 15' x 16' fieldstone building with eight-foot-high walls and a wood-shingled roof. It exemplifies the methods of stone construction and heavy timber framing that were distinctive of the late eighteenth century. The Spring House is approximately 250 feet southwest of the Nallin Farm House and is a part of Nallin Farm. Situated at the head of Fort Detrick's 3½-acre Nallin Pond, it covers the spring that is the main source of water for the pond. The Spring House was added to the National Register of Historic Places in 1977.

(Source: <http://www.marylandhistoricaltrust.net/nr/NRDetail.aspx?HDID=437&COUNTY=Frederick&FROM=NRCCountyList.aspx?COUNTY=Frederick>) ■





## Poster Puzzler

### What is it? Where is it?

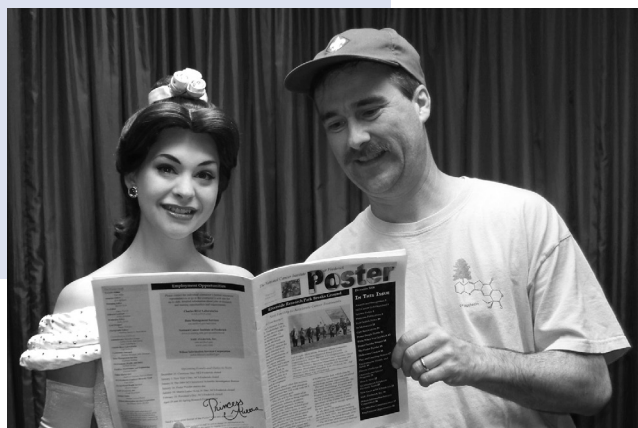
Your challenge, should you decide to accept it, is to correctly identify the item and its location from the picture to the right. Clue: It's somewhere at Fort Detrick/NCI-Frederick. Win a framed photograph of the Poster Puzzler and an NCI-Frederick tee shirt by e-mailing your guess, along with your name, e-mail address, and daytime phone number, to Poster Puzzler at [poster@ncifcrf.gov](mailto:poster@ncifcrf.gov). Alternatively, you can send us your guess, along with your name and daytime phone number, on one of the *Poster* forms found on the front of the *Poster* stands in the lobbies of Buildings 426 and 549. All entries must be received by **Friday, October 16, 2009**, and the winner will be drawn from all correct answers received by that date.

Good luck and good hunting! ■



## Have Poster, Will Travel

The *Poster*, NCI-Frederick's newsletter, is beginning to make its way around the world, as readers grab the latest issue to take with them and read on the plane or train. Next time you're at a conference, have someone snap a digital of you with a copy of the *Poster*, and send it to us. You might just be featured in the next newsletter. ■



On a family vacation to the Magic Kingdom last March, William "B.J." Bosche, Research Associate II, AIDS and Cancer Virus Program, paused to share the *Poster* with Belle, the famous character from *Beauty and the Beast*.

While in Luxembourg Gardens, Paris, in May, Maritta Grau couldn't resist striking the same pose as the well-known statue behind her. Ms. Grau, Editorial Supervisor, Scientific Publications, Graphics & Media, (and managing editor for the *Poster*) notes that this is one of three mini-Statues of Liberty in Paris.



# Outreach and Special Programs

## Thank You, One and All!

The Take Your Child to Work Day Committee would like to express its appreciation for the groups who generously gave their time and energy to making the event a success. Space does not permit naming all the individuals who volunteered their time, but we recognize that it is because of your efforts that the event continues to be popular among the children of NCI-Frederick and Fort Detrick. Thank you!

*Julie Hartman,*  
Chairperson, TYCTWD



### Groups that presented individual programs:

Alpha Company, 302<sup>nd</sup> Signal Battalion, 21<sup>st</sup> Signal Brigade ■ CCR Nanobiology Program ■ Cellular and Molecular Immunology Section, Laboratory of Experimental Immunology ■ Chesapeake Bay Program ■ Clinical Monitoring Research Program ■ Detrick Center for Training and Education Excellence, U.S. Army Garrison ■ Electron Microscopy Facility ■ FME Electrical and Biosafety Cabinet Shop ■ Genetics of Cancer Susceptibility Section, Mouse Cancer Genetics Program ■ Heating, Ventilation, Air Conditioning and Refrigeration Shop ■ Installation Safety Management Office, U.S. Army Garrison ■ J. Craig Venter Institute ■ Laboratory of Medicinal Chemistry ■ Maryland Park Service, Maryland Department of Natural Resources ■ Molecular Targets Development Program ■ National Museum of Health and Medicine, Walter Reed Army Medical Center and Fort Detrick ■ Occupational Health Services ■ Optical Microscopy and Analysis Laboratory ■ Pathology/Histotechnology Laboratory ■ Retroviral Molecular Pathogenesis Section, Laboratory of Cancer Prevention ■ Scientific Library ■ Solid Waste Management Section, U.S. Army Garrison ■ Surfriider Foundation, D.C. Chapter ■ U.S. Army Center for Environmental Health Research ■ U.S. Army Medical Materiel Development Activity ■ U.S. Department of Agriculture, Agricultural Research Service, Foreign Disease-Weed Science Research Unit ■ Virology Division, USAMRIID ■ Wings Over Washington Kite Club

### Groups or individuals who presented Hub or indoor activities:

Aeromedical Isolation Team, USAMRIID ■ Britt family ■ Comstar Federal Credit Union ■ Environmental Office, U.S. Army Garrison ■ Fort Detrick Fire Department ■ Fort Detrick Police ■ Frederick 4-H Club and Hooper family ■ Russ Hanson ■ Maryland Child Identification Program ■ NCI-Frederick Employee Diversity Team ■ NCI-Frederick Protective Services ■ NIH Police ■ Annie Rogers ■ Scientific Library, WISCO ■ Jack Simpson ■ The Bug Patrol, a 4-H Club in Frederick County ■ Kenny Thomas ■ U.S. Department of Agriculture, Agricultural Research Service, Foreign Disease-Weed Science Research Unit ■



## Outreach and Special Programs



### Take Your Child to Work Day “Enjoyed by All”

*By Nancy Parrish, Staff Writer*

More children than ever before attended the NCI-Frederick and Fort Detrick Take Your Child to Work Day event on July 15, according to Julie Hartman, chairperson. Nearly 350 children enjoyed 27 programs and 18 Hub events. New programs included a “Chemical Magic Show,” “Caffeine Critters,” “Adventures in Safety,” “The Human Heart,” “Respect the Beach,” “Glow-in-the-Dark Cells,” and more.

One of the more popular programs, Ms. Hartman noted, was the “Scales and Tales” program presented by the Maryland Park Service, Maryland Department of Natural Resources, which featured a bald eagle, great horned owl, and a falcon. All were rescues that could not be rehabilitated and released back into the wild.

“It was another fabulous year, one of the best,” Ms. Hartman said. “It was enjoyed by all—children, parents, and volunteers!” ■

### TYCTWD Program Teaches Histology and Helping Others

*By Nancy Parrish, Staff Writer*

Take Your Child to Work Day (TYCTWD) at NCI-Frederick represents a great opportunity to teach children about what their parents or grandparents do, about operating a scientific facility, and about performing scientific research. The Pathology/Histotechnology Laboratory (PHL) took it one step further in its TYCTWD program: to teach children the meaning of helping others.

PHL’s program included a brief lesson in histology, from receiving tissue to preparing it, to viewing stained sections under a microscope. The lesson was followed by a project to make stuffed bears for homeless children in Frederick County Public Schools (FCPS). The driving force behind the program was Leslie Johnston, Research Associate I, who said she is a “firm believer in doing community service.”

The bears were delivered to the FCPS liaison for homeless children, who uses them when she meets homeless children entering the schools, Ms. Johnston said. ■



Children made bears for homeless children during PHL’s TYCTWD event, with the help of PHL staff. L to R, back row: Gayle DiSalvo, Lindsay Dutko, Tamara Morgan, Jennifer Matta, Roberta Smith, Stephanie Smith; front row: Patricia Snowden, Darlene Green, Leslie Johnston, Rebecca Oden.

## Outreach and Special Programs

# 2,500

By Nancy Parrish, Staff Writer

That's the estimated number of students who were taught by NCI-Frederick volunteers in the Elementary Outreach Program (EOP) last year, according to EOP manager Julie Hartman. You, too, can become part of this program that has been recognized by the Frederick County Chamber of Commerce, the Frederick County Public Schools, Greater Frederick Chapter of Women in Defense, and even U.S. Senator Barbara Mikulski.

The EOP is a volunteer program in which NCI-Frederick personnel present hands-on science lessons in Frederick County public schools. Ms. Hartman believes it is "an inspiring and educational program for young children." In addition, she said, because it is supported by NCI-Frederick and its contractors, and Fort Detrick, employees may volunteer during work hours, with their supervisor's permission. Vacation time does not need to be taken.

# 4

This is the estimated number of hours you would be away from your office or lab on your teaching days. As a volunteer, you present a pre-planned lesson that is coordinated with the Frederick County Public School curriculum. You will go to your assigned school with at least two other volunteers and help teach a one-hour lesson to two separate classes. "Volunteers are expected to

teach a minimum of two days, but they don't have to be consecutive days," Ms. Hartman explains. "So, for example, you could teach one day in October and a second day in February."

If you live outside of Frederick County and prefer to teach in your neighborhood school, the EOP office will assist you in taking your lesson there.

# 1, 2, 3, 4, and 5

These are the grade levels for which the program is designed. You choose which level you would like to teach. You don't have to be a scientist; in fact, people with nonscientific backgrounds are encouraged to volunteer so that children may see that scientific research requires a broad range of administrative as well as scientific expertise. All you need is a desire to see the wonder in a child's face as he or she discovers that slime can be used for measurement, sees bacteria under a microscope for the first time, or simply realizes that science can be interesting or even fun.

You will be giving children experiences involving scientific expertise and equipment not normally available in elementary schools in Frederick County. More important, you will help enlighten

*"I just want to thank you for a fabulous 'scientific' experience [your volunteers] provided for our 1st graders. The children were excited and all the teachers couldn't say enough great things about the day. I hope we can continue our collaboration next year."*

— Barbara Parsons,  
First Grade Teacher,  
Tuscarora Elementary School

children about careers in scientific research. All materials, lesson plans, and equipment are provided by the Office of the Director, Office of Scientific Operations.

# 70

This is the number of volunteers the EOP is seeking for the 2009–2010 school year. "We need new volunteers with new ideas and energy!" Ms. Hartman said. Participating in this program is a great opportunity to reach out to the community and inspire the next generation of scientists.

# 301-846-7338

This is the number to call to reach Ms. Hartman if you have questions. You may also find more information—including the lesson plans for each grade and volunteer enrollment forms—at <http://web.ncifcrf.gov/campus/outreach/eop/default.asp>. The 2009–2010 program is starting in October, so today would be the perfect day to become a volunteer. ■



## Outreach and Special Programs

### 38 Interns Present Research at Student Poster Day

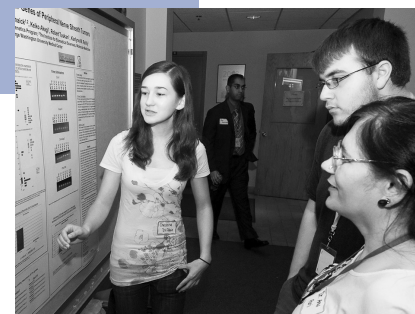
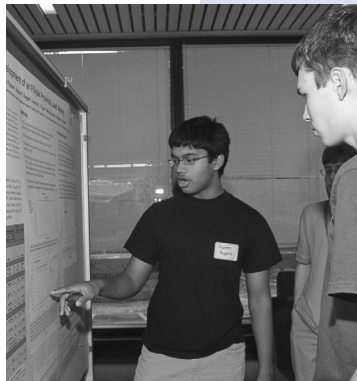
By Ashley DeVine, Staff Writer

Summer Student Poster Day brought 38 Werner H. Kirsten student interns and college interns together to present their research to local researchers and their peers. Julie Hartman, one of the event's organizers, said the large number of attendees "was rewarding to the presenters because they felt as if their presentations were more worthwhile."

Although the event is not a requirement for student interns, it could be one of the two task requirements students need to complete their programs at NCI-Frederick, Ms. Hartman said.

The college interns all participated voluntarily. It was also good practice for the interns, especially for those who plan to pursue careers in scientific research.

Summer Student Poster Day was held July 29 in three sessions in the lobby of Building 549. The event was organized by the Office of Outreach and Special Programs at NCI-Frederick and co-chaired by Drs. Howard Young, Laboratory of Experimental Immunology, and Anu Puri, Center for Cancer Research Nanobiology Program. ■



### Third Annual Student Science Jeopardy Tournament: The Most Students Yet

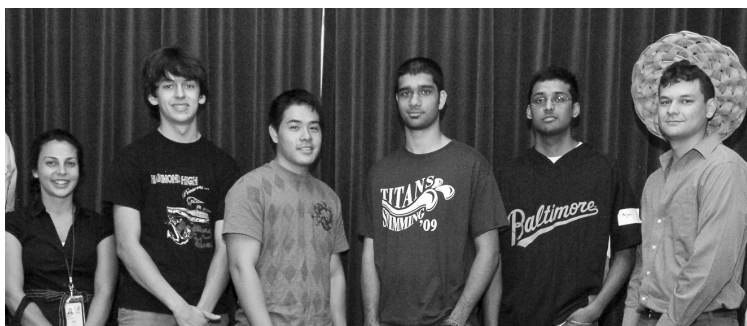
By Ashley DeVine, Staff Writer

With Robin Meckley, WISCO, acting as Alex Trebek, the third annual Student Science Jeopardy Tournament challenged 24 students to think fast and move even faster to answer questions in such categories as cells, botany, the periodic table of elements, and insects.

Twelve students (six teams) participated in the final Jeopardy rounds. Serving as judges were Cheryl Parrott, Director of Communications, NCI-Frederick; and Howard Young, Ph.D., Chief, Cellular and Molecular Immunology Section, Laboratory of Experimental Immunology, NCI-Frederick.

"We had more students this year than any year previously. The students' enthusiasm and positive attitudes made this event a great experience for everyone," Ms. Meckley said.

First place went to Team 7 with a final score of 5,700. David Kaiser-Jones, Hammond High School, and Brittany



The winning teams, from left: Brittany Ashe and David Kaiser-Jones; Marvin Gee and Shaan Ahmed; and Rajesh Yalamanchili and Thomas Wolfe.

Ashe, Walkersville High School, received Miltenyi Biotech gift bags, \$25 gift cards for iTunes, and \$100 gift cards to Borders or Barnes and Noble.

Team 6 came in second, with a final score of 3,200. Marvin Gee, California

Institute of Technology, and Shaan Ahmed, Tuscarora High School, received Scientific Library gift bags and \$50 gift cards to Borders or Barnes and Noble.

Team 1, returning champs from last year, came in third, with a score of 3,100. Rajesh Yalamanchili and Thomas Wolfe,

both students at the University of Maryland, received NCI-Frederick Fitness Challenge gift bags and \$25 gift cards to Borders or Barnes and Noble.

All participants received an Employee Diversity Team (EDT) lunch bag containing items such as a Rita's Italian Ice gift card, a Subway gift card, a Spring Research Festival T-shirt, an ID clip, and a water bottle.

The following vendors and companies contributed prizes and refreshments: Miltenyi

Biotech, Invitrogen, United Healthcare, eBioscience, RBM (Rules-Based Medicine), MetLife, Lonza, Comstar Federal Credit Union, Discovery Café, NCI, Occupational Health Services, EDT, and WISCO. ■

# Student Interns

## Student Intern Awarded Scholarship Sponsored by SAIC Corporate

By Ashley DeVine, Staff Writer

For Orestes Mavrothalassitis, a student intern in the Laboratory of Cell and Developmental

Signaling, NCI-Frederick, education has always been a top priority. For his dedication, he was chosen as one of nine recipients of the 2009 SAIC National Merit Scholarship Program.

The scholarship program was established by SAIC for dependents of SAIC employees and is conducted through the National Merit Scholarship Program by the National Merit Scholarship Corporation.

Mr. Mavrothalassitis qualified for the SAIC National Merit Scholarship by taking the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT®) during his junior year of high school. He became a semi-finalist

in the National Merit Program, based on how he scored on this test. Semi-finalists achieved the highest scores on the PSAT/NMSQT® in each state, according to the *Official Student Guide to the PSAT/NMSQT®* ([http://www.nationalmerit.org/student\\_guide.pdf](http://www.nationalmerit.org/student_guide.pdf)). Based on certain academic and other requirements, Mr.

Mavrothalassitis then became a finalist in the program and was chosen as a National Merit Scholarship recipient, based on his abilities, skills, and accomplishments. He said some of the requirements on the application for this scholarship included an essay, test scores, and descriptions of various extracurricular activities.

Mr. Mavrothalassitis' mother, Meropi Athanasiou, Ph.D., works for SAIC in the Life Sciences Operation of the Health Solutions Business Unit.

"I'm quite proud to have received this scholarship, as I feel it reflects my attitude towards school; my studies have always come first, and I have always strived to perform to the best of my abilities," said Mr. Mavrothalassitis, who

graduated from Thomas Johnson High School in June.

Mr. Mavrothalassitis will attend Johns Hopkins University in the fall (class of 2013). He plans to study molecular and cellular biology and to complete pre-medical requirements to study medicine after he receives his undergraduate degree. "I have always had an interest in the way the body operates, and how we intervene when natural processes go awry and lead to disease; I want to study medicine so that I can help people through this field," he said.

In the Laboratory of Cell and Developmental Signaling, Mr. Mavrothalassitis works under Ira Daar, Ph.D., to examine protein interactions related to cell signaling and migration, and the effects that these interactions have on cancer invasion and metastasis.

"I am very grateful for the efforts of SAIC and the National Merit Scholarship Corporation in encouraging and aiding the pursuit of post-secondary education. University education has become an extremely expensive process, and the generosity of these two corporations has been very helpful in lessening the financial burden on students like myself," Mr. Mavrothalassitis said. ■



### Spotlight on Elizabeth and Michael Baseler, Two People, One Mission

She manages the Critical Monitoring Research Program. He manages the Applied and Developmental Directorate. Together, Elizabeth Baseler, M.S., and husband Michael Baseler, Ph.D., provide the vision for these programs that underpin much of the critical research and development at the National Cancer Institute (NCI) and the National Institute of Allergy and Infectious Diseases (NIAID). And their focus is a huge, unmet need: it's all about the patients.

### Spotlight on Melinda Hollingshead, DVM, PhD "A Pathway Opens Up and I Walk Down It"

Melinda Hollingshead, DVM, PhD, has often taken the road less traveled and that has made all the difference for her—and for many others. Speaking of the events that led her to becoming chief of the Biological Testing Branch, she commented, "My whole life, a pathway opens up and I walk down it."

**A Winding Path into Research**  
Her childhood dream was to become a veterinarian. Along the way, she returned to the main path as a veterinarian for large and small animals, and later followed a path into research as the manager of a Biotechnology Center at Southern Research Institute in Birmingham, AL. She spent five-and-a-half years in Birmingham doing contract work for USAMRIID, NCI, and NIH. Finally, her path brought her to NCI-Frederick.

### Spotlight on Joost Oppenheim, M.D.: "Putting the Jack Back in the Box"

Eliminating the suppressive elements of the immune system combined with better vaccine stimulation of the anti-tumor response may be a winning combination in defending against cancer. According to Joost Oppenheim, M.D., Chief of the Laboratory of Molecular Immunoregulation, such "immune approaches" have been successful in producing remission or prolonging life in 10 to 20 percent of patients, but complete cure has been rare so far. "In a sense, it's like putting the jack back in the box," he said. "Once you select the cancer, there are billions of abnormal cells present, and to get to them with the immune system has proven to be very difficult." Despite the difficulty, Dr. Oppenheim has devoted his entire career to understanding the intricacies of the human immune system in hopes of harnessing it against cancer.

**From Psychiatry to Science**  
Dr. Oppenheim didn't set out to be a scientist, but the clearly always had a scientist's curiosity. Born in the Netherlands, he immigrated to the United States with his family in 1948, the aftermath of World War II. The war left a powerful impression on the 12-year-old boy, who grew up feeling "it was necessary to make a positive contribution because my childhood had a very negative impact." At the same time, the war left him convinced that "people were crazy," and he wanted to become a psychiatrist to find out why. However, during a sub-internship in psychiatry while he was in medical school, he was struck by the ambiguity of patient analysis. Each analysis offered a different analysis of the same patient. Finding this imprecision of diagnosis disturbing, he entered general medicine "to find some other

## SPGM Wins Awards

By Maritta Perry Grau, Staff Writer

Scientific Publications, Graphics & Media was recently notified that two of its publication article series have won awards in the 2009 Magnum Opus juried competition. "On Effective Communication," a series of short articles by Visual Communications Manager Ken Michaels, won a silver award. This series is published in the *Poster, News & Views*, and the *ATP Update*. Generally, different topics are covered in each newsletter.

"Spotlight on..." won an honorable mention; the series, published on the NCI-Frederick web site, focuses on both leaders and "rank and file" employees, profiling their scientific contributions, as well as a bit about their interests outside the workplace.

Magnum Opus awards are sponsored and administered once annually by the Missouri School of Journalism. ■

### SAIC-Frederick, Inc. News & Views Volume 14, July 2008

**On Effective Communication**

**What's the Story**  
By Ken Michaels  
Mart Rix, one of the speakers at a meeting I recently attended, talked about the pernicious problem of misinterpretation and how we frequently cause ourselves trouble by jumping to erroneous assumptions and conclusions. He illustrated his point by recalling an experience he had while waiting for a flight in a very small airport somewhere in Nebraska. A flight attendant voice came over the public address system with the request, "Will the man who dropped his pants at the ticket counter please return to the airport as small cargo please return to the airport from all over—go to a clearly audible, about same voice, once over time, announced, 'The hangar!'"

His presentation was at Sixties Sell and employees stories to pain memo.

Storytelling is as old as language itself as a means of education and entertainment is usually all cultures. Historical icons such as Mark Twain taught, and amused, by effectively using stories to illustrate the points they wanted to make. Many of the best public speakers are those who recognize the value of really running a point home with a story that will stick with the listener, and breaks some life into the fabric of the matter. Following are Mr. Rix's eight elements of an effective story:

1. Premise: What's going on?
2. Problem or conflict: Difficulties that beg to be resolved are intrinsically captivating.
3. Places: Real places help the listener form a picture. "I was headed south on I-70" creates a more-vivid mental image than "I was on the highway."
4. Dialog: First-person accounts with real dialogue are highly effective.
5. Educational: A really good story has a message that sticks something.
6. Entertaining: Things that give us a chuckle tend to be more memorable than things that don't.
7. Storytelling is not joke-telling. A great story doesn't have to be funny and in fact some of the greatest stories of all aren't the least bit funny, but they're memorable all the same.

A short story by Ken Michaels

**On Effective Communication**

**It's About Time!**  
By Ken Michaels

In the mid-twentieth century, the railroad system in Italy was notorious for the unreliability of its daily schedules. Benito Mussolini bolstered his rise to power by promising to end the country's transportation troubles. After seizing control, he touted his authority and leadership with the claim that he made Italy's trains run on time. (Many consider this an urban myth, finding it impossible to believe that trains in Italy have ever run on time, but he claimed it as a personal accomplishment all the same.)

Aside from trains, wouldn't it be nice if scientific meetings and symposia, too, also ran on time, especially when concurrent sessions are involved? Meetings that don't run on time are annoying. In my own communications utopia, the meetings I attend begin on time, speakers stick scrupulously to their allotted time, and the event concludes on time or a few minutes early. When that happens, I can more fully concentrate on what I'm there for—the content.

Speakers who drone on past their allotted time show disrespect for both the audience and the other speakers. More than once I've heard the last speakers on the docket having to rush their presentations in order to end the session on time. In such situations, those last few speakers were shortchanged. Running over their allotted time slot is poor form.

Even when prompted by the emcee to finish up, the "overrun" speaker has few options available if there's still more material. I've seen speakers speed talk and fast-fly through a dozen slides or more, sometimes skipping some altogether—which prompts the questions: if the material was unimportant enough to skip, why was it in the talk in the first place? It mainly demonstrates to the audience that the speaker was not well prepared.

Here's a suggestion that will excite you and your colleagues: If you're invited to give a 30-minute presentation, do it in 25. Nobody minds when you finish early; the worst it can do is provide a few extra minutes for Q&A. And how do you know if you can do it in 25 minutes? Practice it.

I understand that the idea of practicing a presentation is considered unnecessary by many experienced public speakers. But if there's only one good reason, regardless of experience, it would be to ensure that you can get your important messages across in the time allotted.

The importance of being on time cannot be overemphasized. Jugg act anyone who has traveled to Italy.

The NCI-Frederick Poster 22 June 2008

## 2009 Spring Research Festival Poster Winners

By Nancy Parrish, Staff Writer

Congratulations to the 24 poster presentation winners at the 2009 Spring Research Festival, listed here by award category and affiliation. The poster category is shown in parentheses.

### Laboratory Technician/ Technical Support Category

#### First Place

■ **Lakshman Bindu**, Protein Chemistry Laboratory, Advanced Technology Program, SAIC-Frederick (New Technology) ■ **Ondraya Espenshade**, U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID) (Biodefense) ■ **Susana Padilla**, Diagnostics Systems Division, USAMRIID (Biodefense)

#### Second Place

■ **Nicole Fer**, Functional Genomics Lab; Screening Technologies Branch; Developmental Therapeutics Program, SAIC-Frederick (Cancer Biology) ■ **Matthew Lackemeyer**, USAMRIID (Administrative Services)

#### Third Place

■ **Kristin Biris**, Cancer and Developmental Biology Laboratory, NCI (Developmental and Cell Biology) ■ **Jeffrey Brubaker**, Histology, USAMRIID (Infectious Pathogens) ■ **Dani Fink and Karen Lau**, Neutrophil Monitoring Laboratory, Clinical Services Program, SAIC-Frederick (Immunology) ■ **Mary Rhodes-Selser**, Biopharmaceutical Development Program, SAIC-Frederick (Vaccine and Gene Therapy)

### Postdoctoral Scientist Category

#### First Place

■ **George Lountos**, Macromolecular Crystallography Laboratory, NCI (Structural Biology and Chemistry)

#### Second Place

■ **Naiche Adler**, Cancer and Developmental Biology Laboratory, NCI (Development and Cell Biology) ■ **Xiazhong (Alex) Bao**, Cancer and Developmental Biology Laboratory, NCI (Development and Cell Biology) ■ **Gerd Bohe**, Gene Regulation Section, Laboratory of Cancer Prevention, Center for Cancer Research (CCR), NCI (Genetics and Epidemiology) ■ **Hai Huang**, Cancer and Developmental Biology Laboratory, NCI (Development and Cell Biology) ■ **Monika Kaczmarek**, Retroviral Molecular Pathogenesis Section, Laboratory of Cancer Prevention, NCI (Molecular Biology) ■ **Jianjian Zhu**, Cancer and Developmental Biology Laboratory, NCI (Development and Cell Biology)



### Student Category

#### First Place

■ **Angela Korrell**, Early Process Sciences Department, Biopharmaceutical Development Program, SAIC-Frederick (Drug Development and Delivery)

#### Second Place

■ **Edmund Price**, Molecular Targets Development Program, CCR, NCI (Cancer Biology) ■ **Kim Shafer-Weaver**, Laboratory of Cell-Mediated Immunity, SAIC-Frederick (Immunology) ■ **Xiang Zhang**, Retroviral Molecular Pathogenesis Section, Laboratory of Cancer Prevention, NCI (Molecular Biology)

#### Third Place

■ **Jeremy Bonebrake**, USAMRIID (New Technology) ■ **Rita Grantner**, Gene Regulation and Chromosome Biology Laboratory, NCI (Genetics and Epidemiology) ■ **Mark Pritt**, Center for Cancer Research Nanobiology Program, NCI, Basic Sciences Program, SAIC-Frederick (Informatics) ■ **Aaron Shim**, Laboratory of Cell and Developmental Signaling, NCI (Administrative Services)



### Symposium Winners

Spring Research Festival week included “Chemistry as a Life Science,” a symposium sponsored by the Center for Cancer Research that featured a guest speaker and a series of talks by postdoctoral and postbaccalaureate fellows. Winners for the best presentations included ■ **Tanja Grkovic**, Molecular Targets Development Program; ■ **Rahul Nandurdikar**, Laboratory of Comparative Carcinogenesis; and ■ **George Lountos** and ■ **Chao Tu**, both of the Macromolecular Crystallography Laboratory. ■

## Sixth Annual PALS Art Auction Displays Butterflies, Beach Scene, and More

By Ashley DeVine, Staff Writer

The Play and Learning Station (PALS) held its sixth annual art auction and bake sale on July 7, featuring art created by the PALS children and baked goods contributed by parents.

Children in the Yellow Room, ages six weeks to walking, painted “Butterflies Are Free,” using their feet as the wings of the butterflies. Children in the Red Room, from walking to age two, used their handprints around a painting of the world to create their painting called “It’s a Small World.” The Green Room’s two-year-olds painted “The Green Room’s Acre,” depicting a barn in a grassy field. Three- to five-year-olds in the Blue Room painted a beach scene titled “PALS Cozy Island.” A number of the children’s recent art projects were also on view during the event.

“The event was well-attended, and bidding for the auction items was quite exciting,” said Eileen Downey, Parents Advisory Committee (PAC) president.

The event, conducted by the PALS PAC, raised about \$400, which will be used to purchase fresh fruit and supplies for PALS.

PALS is available for full-time and part-time child care. For more information, please call 301-846-5200 and speak with Director Dianne Velazquez-Hunt or Assistant Director Natascha Fearnow. ■

### "It's a Small World"



### "Butterflies Are Free"



### "PALS Cozy Island"



### "The Green Room's Acre"



Thank you



## NCI-Frederick Employee Diversity Team

### Newsweek's Eleanor Clift Addresses Women's Equality

By Ashley DeVine, Staff Writer

To celebrate Women's Equality Day, the NCI-Frederick Diversity Team and the 21<sup>st</sup> Signal Brigade hosted guest speaker Eleanor Clift on August 25. She is a regular panelist on the syndicated talk show *The McLaughlin Group*, author of several books, and a contributing editor for *Newsweek*. She has been a contributing editor since 1994.

Ms. Clift began her career as secretary to *Newsweek's* National Affairs editor in New York and became the first woman at the magazine to go from secretary to reporter. She served as a reporter in *Newsweek's* Atlanta bureau before becoming congressional and political correspondent for six years and, more recently, White House correspondent.

Ms. Clift is the author of four books. She wrote *War Without Bloodshed: The Art of Politics* (Scribner, 1996) and *Madam President: Shattering the Last Glass Ceiling* (Scribner, 2000) with her late husband Tom Brazaitis. *War Without Bloodshed* takes the reader inside Capitol

Hill to see how decisions are really made.

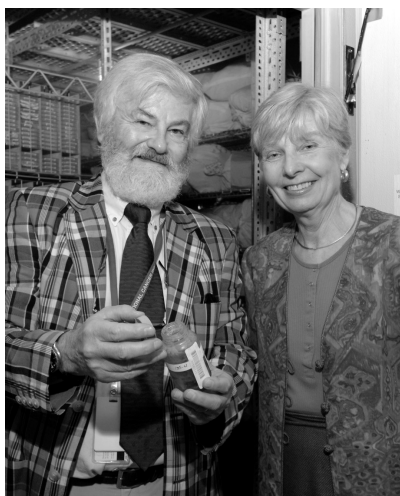
Set in 2008, *Madam President* explores what it would be like to have a woman nominated for the presidency. In 2003, Ms. Clift published *Founding Sisters and the Nineteenth Amendment* about the women's suffrage movement (John Wiley & Sons, 2003). Her most recent book, *Two Weeks of Life:*

*A Memoir of Love, Death, and Politics*

is about her husband's death from cancer and how we deal with death in America.

In addition to writing, Ms. Clift has appeared as herself in several movies, including *Dave*, *Independence Day*, *Murder at 1600*, *Rising Sun*, and the CBS series, *Murphy Brown*. ■

[Editor's note: information for this article was gathered from [www.eleanorclift.com](http://www.eleanorclift.com).]



### Diversity Display Case Needs Your Souvenirs!

By Maritta Perry Grau, Staff Writer

Through mid-October, we will be celebrating Hispanic Heritage Month through displays in the Diversity Team showcase, located in the front lobby of Building 549. If you have some interesting objects you'd like to share, please contact Ethel Armstrong, 301-846-5843, Interlibrary Loan Manager, Scientific Library.

The August display contained Indian cultural artifacts, thanks to Deepti Dave, Tripti Joshi, and Archana Shrestha, Data Management Services; Sukanya Sathyanarayana and Smruti Patel, Media Laboratory, SAIC-Frederick; Dr. Mohan Rao and Prasanjeet Bhaumik, Macromolecular Crystallography Laboratory, NCI; and Aparna Paranjali, Fort Detrick. They all contributed dolls, jewelry, handmade shoes and other leather works, art work, and costumes to the display case.

### Web Sites of Note

By Ashley DeVine, Staff Writer

Throughout our newsletter, you'll find web sites that provide you with more information than we can put in our stories. In addition, you're probably aware that many days, weeks, and months are devoted to the recognition of particular health care issues. While we can't list them all, we've selected a few dates that seem most pertinent to NCI-Frederick. Web sites for these dates are listed below.

#### September:

Ovarian Cancer Awareness Month: <http://www.ovarian.org/>

Prostate Cancer Awareness Month: [http://www.zerocancer.org/site/PageNavigator/PRO\\_Prostate\\_Cancer\\_Awareness\\_Month](http://www.zerocancer.org/site/PageNavigator/PRO_Prostate_Cancer_Awareness_Month)

#### October:

Breast Cancer Awareness Month: <http://www.nbcam.org/>

Respiratory Care Week, October 25–31: <http://www.aarc.org/rcweek/>

#### November:

Gynecologic Cancer Awareness Movement Weekend and the Gynecologic Cancer Foundation's half marathon/5K race, November 6–8, Washington, DC: <http://www.wcn.org/media/announcements/20090325.html>

Lung Cancer Awareness Month: [http://www.lungcanceralliance.org/involved/lcam\\_month.html](http://www.lungcanceralliance.org/involved/lcam_month.html)

Pancreatic Cancer Awareness Month: <http://www.pancan.org/>

American Diabetes Month: <https://www.diabetes.org/communityprograms-and-localevents/americanmonth.jsp>

#### December:

World AIDS Day, December 1: <http://www.avert.org/world-aids-day.htm>

# Team Spirit

## NCI Tops SAIC-Frederick in Second Annual Softball Game

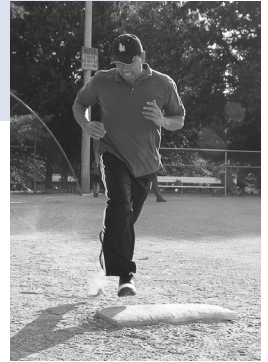
By Hal Grau, Guest Writer

NCI-Frederick bats were red-hot late in the softball game on August 13 and turned a close contest with SAIC-Frederick into an easy 17-9 victory. After opening up an early seven-run lead in the first three frames, mostly on timely hits and several SAIC-Frederick errors, NCI saw its rivals narrow the gap to 8-7 after five-and-a-half innings. SAIC-Frederick fought back with some outstanding defensive plays by second baseman Jeff Lake on a diving catch of a liner headed to the right and on two fine running catches by Most Valuable (MVP) SAIC-Frederick Player, outfielder Jiro Wada. The comeback was fueled offensively by doubles from Brad Leggett and Mr. Lake and a two-RBI (runs batted in) hit by Chris Hester.

NCI regained momentum, thanks to guest hitter Bubba Young, who blasted a pair of two-run homers and had a bases-loaded single that plated two more runs in the eighth inning. Key hits by NCI's Jess Hawes and guest players Chad Hartman and Jon Dalessio, along with some smart base running by NCI's Dianna Conrad, helped put the game out of reach for the SAIC-Frederick squad. After the game, Ms. Hawes was presented with the NCI MVP award for her outstanding defensive play.

Although good-natured competitive juices were flowing for both teams, it was fun for players and spectators to witness many of their co-workers in a different venue. SAIC-Frederick's Dr. Nazzena Labo, a native of Italy, was playing in her first softball game. She played catcher and contributed offensively by driving in a run with a fielder's choice in the seventh inning.

As players and fans were leaving the ballpark, an SAIC-Frederick player was heard yelling, "Team practice tomorrow at 6:30!" It appears someone is looking ahead to a rematch in 2010. ■



# Feeling Fine in '09

## Feeling Fine in '09 Participants Have Exercised More than Halfway around the World







By Ashley DeVine, Staff Writer

As of August 17, Feeling Fine in '09 participants lost 250 pounds (yearly goal is 2,000 pounds); ran, walked, and biked 16,853 miles (yearly goal is ~25,000 miles); and performed 3,266 hours of other fitness activities (yearly goal is 8,760 hours).



(Left): Robin Dewar, Kimberly Peifley, and Jane Jones; (Top): Steven Stull and Victoria Barron



| Activity  | Winners  |  |  |
|---|--|--|--|
|   | May  | June   | July   |
| Miles Walked   | <b>Judith Poiley-Nelson</b><br>Biopharmaceutical Development Program | <b>Robin Dewar</b><br>Applied and Developmental Research Program       | <b>Dawn Gartner</b><br>Contracts and Acquisitions                                |
| Miles Run   | <b>Lisa Riffle</b><br>Laboratory Animal Sciences Program             | <b>Jane Jones</b><br>Biopharmaceutical Development Program             | <b>John Carter</b><br>Applied and Developmental Research Program                 |
| Miles Biked    | <b>Victoria Barron</b><br>Contract Planning and Administration       | <b>Kim Peifley</b><br>Advanced Technology Program                      | <b>Susan Culler</b><br>Wilson Information Services Corporation                   |
| Weight Lost    | None   | <b>Helene Highbarger</b><br>Applied and Developmental Research Program | None   |
| Other Fitness Activities Completed   | <b>Steven Stull</b><br>Basic Science Program                         | <b>Michael Murphy</b><br>Vaccine Clinical Materials Program            | <b>Yunden Badralmaa</b><br>National Institute of Allergy and Infectious Diseases |

# New Faces at NCI-Frederick

Ninety-six people joined our facility in April, May, and June 2009.

## The National Cancer Institute welcomes...

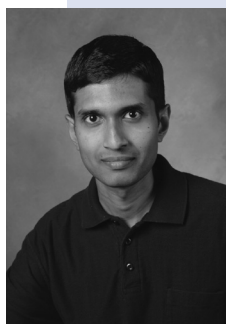
Prashanth **Bhaskar** ▪ Christopher **Campbell** ▪ Zhisong **Chen** ▪ Kyle **Christian** ▪ Siamon **Gordon** ▪ Xiang **Guo** ▪ Jing **Hao** ▪ Carrie **Hightman** ▪ Ryan **Holland** ▪ Clare **Holleley** ▪ Julia **Kenyon** ▪ Takeshi **Kinjo** ▪ Lillian **Kuo** ▪ Jixia **Liu** ▪ Meredith **Metzger** ▪ So Young **Moon** ▪ Ina **O'Carroll** ▪ Tobias **Paprotka** ▪ Adam **Parks** ▪ Vladimir **Pletnev** ▪ Katarzyna **Purzycka** ▪ Zhijun **Qiu** ▪ Natasha **Shanker** ▪ Brandon **Smith** ▪ Jason **Stagno** ▪ Shunsuke **Tanigawa** ▪ Narasimhan **Venkatachari** ▪ Emily **Whitson** ▪ Mumtaz **Yaseen** ▪ Noriko **Yoshikawa**



*Emily Whitson*

## Charles River Frederick welcomes...

Carlos Majalca **Cardenas**



*Prashanth Bhaskar*

## Data Management Services welcomes...

Gerson **CiFuentes** ▪ Wayne **Denier II** ▪ James **Ten Eyck** ▪ Kyle **Miller** ▪ Christopher **Rippeon**

## SAIC-Frederick welcomes...

Leslie **Abugan** ▪ Jennifer **Adu** ▪ Emelia **Annum** ▪ Karen **Barber** ▪ Aaron **Barkdoll** ▪ Sixta **Benegas** ▪ Niza **Borchin** ▪ Linda **Caldwell** ▪ Stephan **Carpenter** ▪ Van Lal **Chhuanenga** ▪ Simona **Colantonio** ▪ Josephine **Esteban** ▪ Patricia **Fitzsimmons** ▪ Robert **Fitzsimmons** ▪ Maureen **Gearheart** ▪ Debra **Grossman** ▪ Theresa **Guerin** ▪ Kelly **Haas** ▪ Eliahu **Heldman** ▪ Elaine **Hilton** ▪ Stephanie **Housel** ▪ Xiaojun **Hu** ▪ Krisma **Jackson** ▪ Keith **Jones** ▪ Nina **Jones** ▪ Stacey **Karnes** ▪ Gary **Krauss** ▪ Norman **Lambert** ▪ Michelle **Lee** ▪ Christopher **Lemieux** ▪ Edward **Livesey II** ▪ Joshua **Lorenzo** ▪ Cameron **Marlow** ▪ Johnny **McCray** ▪ Tamika **Mitchell** ▪ Kimberly **Montgomery-Recht** ▪ Michael **Mullendore** ▪ Timothy **Myers** ▪ Chrisdale **Ohler** ▪ John **Orzechowski** ▪ Michelle **Paulson** ▪ Taimoore **Rajah** ▪ John **Raley** ▪ Musharaf **Rashid** ▪ Melissa **Raymond** ▪ Carolyn **Reid** ▪ David **Roberson** ▪ Lila **Rutten** ▪ Jamie **Saynuik** ▪ Anish **Shah** ▪ Matthew **Sheffer** ▪ Ling **Su** ▪ Jamie **Talisman** ▪ Huong-Lan **Tran** ▪ Brigitte **Viands** ▪ Aaron **Vittini** ▪ Courtney **Watkins** ▪ Nicholas **Whims** ▪ Jerrod **Williams** ▪ Yongmei **Zhao** ■



*Linda Caldwell*



*Ryan Holland*



*Leslie Abugan*

## Be a "Penny Saver"

By Ken Carpenter, Guest Writer,  
Chief Financial Officer

Have you noticed posters for "APennySaved" outside of the Discovery Café and the Scientific Library? Have you received e-mails highlighting cost savings ideas that have benefited the airline industry and the General Electric Company™? As government contractors supporting the National Cancer Institute's mission, do you believe we should look for ways to provide this mission with more research dollars? If so, you could be a "Penny Saver" for NCI-Frederick.

Our goals are to save scarce resources, identify inefficient activities, and make sure SAIC-Frederick spends money and time on the important tasks of winning the war against cancer and AIDS. In an effort to support these goals, the Cost Management Committee searched for ways to engage everyone at SAIC-Frederick. The result was the "APennySaved" campaign. After all, who better to ask for cost savings ideas than those who regularly see activities that waste money and short-change research?

The initial response of ideas to this campaign was tremendous. We launched the campaign at the end of June and received a flood of suggestions within the first two days. These ideas ranged from easy to hard and from quick fixes to longer-term policy changes. Two suggestions were to turn your computer off at the end of the day (easy) and implement a Six Sigma black belt function here at Frederick (a little more difficult). Each idea received is passed on to our Cost Management Committee and is added to the agenda for the next committee meeting.

Cost savings is one way we can all contribute to finding a cure for cancer and AIDS and expediting the transfer of knowledge and technology from the bench to bedside. Whatever your role

and function is at SAIC-Frederick, your thoughts and ideas for this campaign are always welcome.

To submit an idea for the campaign, send an e-mail to [APennySaved@mail.nih.gov](mailto:APennySaved@mail.nih.gov).

## Be Awarded for Your Cost Savings Ideas

A Cost Savings Award is given out at our Annual Achievement Awards Ceremony in November.

All SAIC-Frederick employees are eligible for this award, except for those members of the SAIC-Frederick Cost Management Committee and Senior Management Team. This award is based on the following criteria:

- Produces quantifiable savings to the contract that benefits NCI-Frederick
- Goes beyond normal job expectations
- Implements a process
- Proposes savings that are significant in nature and are either a one-time savings event or a cost reduction that will recur year after year.

in the documented job description for each position.

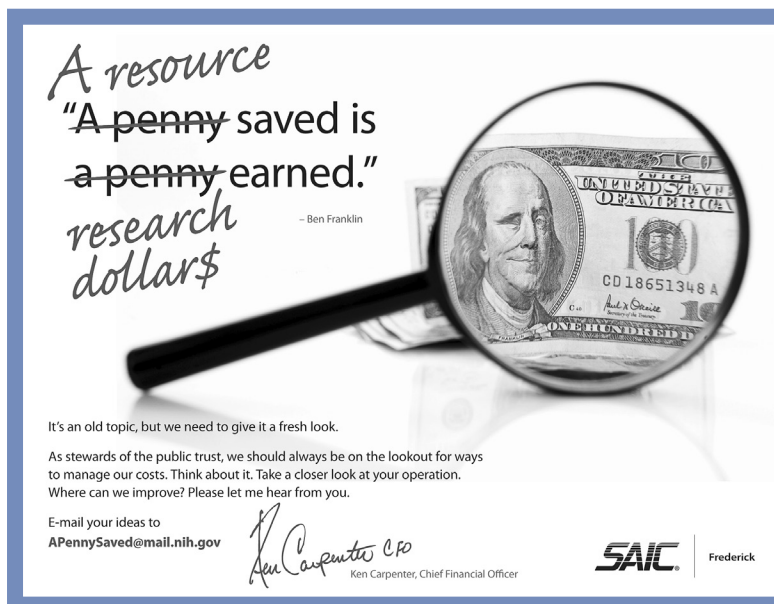
There is no limit to the number of cost savings suggestions that may be submitted for consideration for this award; however, keep in mind any such suggestion must be implemented within the period for the award, and the nominee must be able to produce evidence of savings achieved.

The SAIC-Frederick Cost Management Committee will ultimately decide if the impact of the cost savings is considered substantial to the overall contract performance based on scope, expectation of recurring cost savings, value of a one-time savings (if applicable), and the expected benefit to NCI-Frederick. While there is no stated limit to the proposed savings, it is expected that such savings would be beyond what is normally expected of an individual in performing his/her daily duties. The cost savings must also have a definitive positive impact on specific programs and on NCI-Frederick that would not have

been achieved if the proposed initiative had not been implemented.

The initiative must first be approved by the SAIC-Frederick Cost Management Committee for company-wide initiatives, or approved by a program director for program-specific initiatives. Once approved, the initiative must be implemented in such a way that the proposed cost savings commences before the end of the award period under review. Evidence of the proposed cost savings must be provided by the nominee or available for validation by the Cost Management Committee.

This evidence could be shown through financial reports or other documented means that reflect the results. It is not necessary to fully achieve the proposed cost savings as long as it is evident that progress is being made and savings will be achieved. ■



The Cost Savings Award must be given to an employee for an action or proposed solution to an issue that goes above and beyond what a manager would expect an employee to achieve in the daily conduct of an employee's work duties or as stated

## NCI-Frederick-in-Print: A Resource for Site Visits and Annual Reports

By Robin Meckley, Contributing Writer

When you are preparing for site visits and compiling annual reports, please take a look at NCI-Frederick-in-Print to find a list of your publications. This database, available on the Scientific Library's homepage under Quick Links, contains records for articles written by NCI-Frederick and SAIC-Frederick employees since 1997. Some book chapters, patents, and conference proceedings are also included. Library staff members add records to the database weekly to keep it up-to-date.

When possible, records will link to the full-text journal articles. PubMed reference numbers (PMIDs) and PubMed Central reference numbers (PMIDs) are also included, when available. In addition, references link to Journal Citation Reports, a database that provides the impact factors for journals.

NCI-Frederick-in-Print is accessible from the NCI-Frederick campus, and there are plans to make it available to the public. Please keep in mind that only eight people can access this resource at one time. If you use this database, please remember to use the Logoff button in the top right corner of the screen when you are finished.

Please contact Tracie Frederick at 301-846-1094 or [frederickt@mail.nih.gov](mailto:frederickt@mail.nih.gov) with any questions or suggestions about this database, especially if you notice that one of your publications is not listed.

### Library Aides Provide Essential Library Services Evenings and Weekends

Are you aware that the Scientific Library is open evenings and weekends to NCI-Frederick employees? We are open until 9:00 p.m., Monday–Thursday, and until 7:00 p.m. on Friday. On Saturday, the hours are 10:00 a.m.–5:00 p.m. and on Sunday, 11:00 a.m.–5:00 p.m. Our six part-time library aides operate the library during these hours. We have five regular library aides and one on-call

aide, who fills in when needed. Jeannie Gonzalez, Donnie Hipps, Jolaina Page, Lee Redmond, and Beverly Smith have worked as aides for many years, some for more than 10. Lora Main, our newest aide, joined the staff earlier this year. They all have full-time jobs during the day, some at NCI-Frederick, yet are committed to their evening and weekend shifts.

All of our library aides are trained in basic library skills and can assist patrons with certain reference questions. They are also available to help with the use of the library's computers and to help

### The Library Can Help with EndNote and Reference Manager

Do you need help with EndNote or Reference Manager? Are you unsure about how to edit a style? Whether you are a new or advanced user, the Scientific Library can help you troubleshoot your EndNote and Reference Manager problems. Save yourself precious time by contacting the Scientific Library at 301-846-1093 or [NCIFredLibrary@mail.nih.gov](mailto:NCIFredLibrary@mail.nih.gov) with your questions and problems.

Scientific Library  
NCI-Frederick

Logoff Help

Home Search Research

NCI-Frederick-in-Print Home

The NCI-Frederick-in-Print database is a collection of citations for journal articles authored by employees and contractors of the National Cancer Institute at Frederick from 1997 through the present. Please bear in mind that this new product is a work in progress, and we welcome any comments you may have.

**NOTE:** As of July 6, 2009, the NCI-Frederick-in-Print database will not include links to the PubMed record for each citation. Instead, a link to the journal Impact Factor from Journal Citation Reports will be included. Library staff are currently adding these links. The PMID for each citation is included, if one is available. You may use that to search PubMed to retrieve the record there.

**Search:** To find references in the NCI-Frederick-in-Print database.

**Research Resources:** To view a list of links helpful to your research.

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P.O. Box B., Bldg. 549, Frederick, MD 21702 Tel: (301) 846-1093  
Email: [NCIFredLibrary@mail.nih.gov](mailto:NCIFredLibrary@mail.nih.gov) Suggestion Box

USA.gov  
Government Made Easy

locate books and journals. The aides play a major role in our document delivery service, making copies of requested journal articles and e-mailing them to requesters. Our aides are also responsible for maintaining the proper order of books and journals on the shelves so that our users can find what they need quickly. Lastly, our aides assist the day staff with various tasks and projects involving journals and the library's NCI-Frederick-in-Print database.

EndNote and Reference Manager are bibliographic management software programs that allow users to organize and manipulate citations, and prepare bibliographies for publication. Both programs are available to NCI-Frederick employees via a site license. To get these software programs installed on your computer, contact Computer and Statistical Services at 301-846-5115, [helpdesk@css.nicfcrf.gov](mailto:helpdesk@css.nicfcrf.gov), or fill out a service request form at <http://css.nicfcrf.gov/helpdesk/default.asp>. ■

## Presentation Is Teaching

By Ken Michaels, Staff Writer

In the Effective Oral Presentations workshop that is offered on the NCI-Frederick campus, I usually introduce one of my segments with three major principles:

1. Always show respect for your audience.
2. Remember that presentation is teaching.
3. Remember that it's all about the message.

I'd like to address the second of these principles: Presentation is teaching. What does that mean? Essentially, it means that if the audience doesn't fully understand the message(s) being delivered, the presentation is a failure.

It's both common and natural for those with relatively little public speaking experience to experience a bit of nervous "jitters" as they prepare to give an oral presentation. They find themselves thinking, *Will I sound like I know what I'm talking about? Do I, in fact, really know what I'm talking about? Will they know that I'm nervous about giving this talk? What if I forget what I want to say? What if my mind goes blank?*

Notice that all of these notions are focused on you, and how well you will perform. But it's not about you. An information-rich presentation is not about the performance; it's about whether the audience understands the message.

Most audiences assume that the speaker knows what he or she is talking about. After all, the audience wouldn't be there if they thought the speaker knew nothing about the subject. You know your topic; that's a given. What you're there to do is to share what you know in a way that gives your audience a better understanding of the topic. When getting up to present, remember that you need to put on your teaching hat; focus on making sure your audience is getting the message, not on impressing them with your knowledge.

I don't mean to say that a good presenter pays no attention to performance. On the contrary, effective speakers pay a lot of attention to how they get their messages across. They take the time to consider how to use tools such as tone of voice, volume, pace, facial expressions, and hand gestures to best effect.

What I do mean to say, though, is that the attention to delivery is not rooted in the desire to come off looking good, but rather to be certain that the audience gets the point. As they "read" the audience, good speakers are not looking for evidence that they're scoring points; they're looking for signs of understanding—that the message is getting through.

On the flip side are those speakers who pay no attention at all to delivery. You've probably been to presentations where the

speaker takes the platform, picks up the remote in one hand, the laser pointer in the other, turns to the screen, and holds forth for 20 minutes or more, rarely, if ever, turning to see if the audience is even still in the room, much less getting the message (and the likelihood is that they're not).



Every parent knows that when you counsel a child about looking both ways before crossing the street, you don't just toss that message over your shoulder while

doing something else. You bend down, look the child in the eye, and deliver your message in simple, emphatic terms, watching the child's face for signs of understanding. It's not about you and your performance as a speaker; it's about whether the child is getting it.

And that's what really effective presenters do; they don't just talk to their audience. They teach. ■



The cover of the National Cancer Institute Telephone & Services Directory features a photograph of a modern building with a large arched window. The text "National Cancer Institute" is written vertically on the left. The title "telephone & services directory" is prominently displayed in the center. At the top, it says "National Cancer Institute at Frederick". At the bottom, it includes "U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES" and "National Institutes of Health". The date "July 2009" is in the bottom right corner.

### New Telephone Directory Published

By Nancy Parrish, Staff Writer

The new NCI-Frederick *Telephone and Services Directory* was published in July and is available from the Consolidated Warehouse. The directory includes new services and updated maps.

You may order the telephone directory for yourself or for a group, using the online ordering system or the Warehouse Supply Requisition form. Both are accessible at: <http://web.ncifcrf.gov/campus/als/supply-catalog/>. ■

**Be sure to include the stock number, 75105446.**

## Upcoming Events and Dates to Note

**October 16**

Poster Puzzler entries due

**October 12**

Columbus Day; NCI-Frederick closed

**Every Tuesday through October 28:**

Farmers' Market

11:00 a.m.–1:30 p.m. (in front of Building 549)

**November 11**

Veteran's Day; NCI-Frederick closed

**November 26**

Thanksgiving Day; NCI-Frederick closed

**December 25**

Christmas Day; NCI-Frederick closed

## Employment Opportunities

Please contact the individual contractor's human resources representatives or go to the contractor's web site for up-to-date, detailed information about jobs or research and training opportunities and requirements.

Charles River Laboratories  
[www.criver.com](http://www.criver.com)

Data Management Services  
[css.ncifcrf.gov/services](http://css.ncifcrf.gov/services)

National Cancer Institute at Frederick  
[www.training.nih.gov/postdoctoral](http://www.training.nih.gov/postdoctoral)

SAIC-Frederick, Inc.  
[www.saic-frederick.com](http://www.saic-frederick.com)

Wilson Information Services Corporation  
[www-library.ncifcrf.gov](http://www-library.ncifcrf.gov)

## NCI-Frederick Programs

NCI-Frederick/Ft. Detrick Fitness Challenge 2009  
[saic.ncifcrf.gov/fitnesschallenge/](http://saic.ncifcrf.gov/fitnesschallenge/)

NCI-Frederick Suggestion Committees  
[web.ncifcrf.gov/campus/committees/](http://web.ncifcrf.gov/campus/committees/)

NCI-Frederick Advanced Technologies to Support Research  
[web.ncifcrf.gov/research-technologies/default.asp](http://web.ncifcrf.gov/research-technologies/default.asp)

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Reminder: When you have a change in staff, be sure to change the information in the NCI-Frederick database. You can do this online by logging on to [web.ncifcrf.gov/campus/phonebook/](http://web.ncifcrf.gov/campus/phonebook/), or by contacting your human resources representative. For more information, you may refer to the inside front cover of the NCI-Frederick *Telephone & Services Directory*.

Comments or suggestions for *The Poster* may be directed to [poster@ncifcrf.gov](mailto:poster@ncifcrf.gov).

Need a large-print format of the *Poster*? Call 301-846-1055.

[web.ncifcrf.gov/ThePoster](http://web.ncifcrf.gov/ThePoster)

44126







**EXTRAS ■ EXTRAS ■ EXTRAS**

Write When You Get Work

*The following essay was written by Victoria Gou while she was a Werner H. Kirsten student intern in the Laboratory of Molecular Oncology in 1993:*

At seven o'clock in the morning, I walk on the spotless, white tiles of Building 469. The hallway is cluttered; large cabinets and radioactive waste units line the path. I am in an area bombarded by germs and contaminants. I walk with my arms held closely to my body, hoping to minimize contact with any possible dangers. I put on my lab coat and slip on small, powdered gloves.

My cells must be dying. They have suffered the entire four-day weekend without food. Fearful of what I may see, I am reluctant to view them. I place the plate on the stage and turn on the light. Thousands of shriveled, dead cells float in the media. Few cells remain attached to the plate. The casualties are high. To clear the scene of destruction, I remove the media and add four milliliters of fresh solution. I view the plate again. I see rounded cells, shriveled cells, flat cells. Which are transformed? Which are normal?

I look at the plate for a long time. My eyes become strained and my mind frustrated. How can I differentiate? Is this a technique acquired through time, or am I simply incompetent?

I return to my desk and frantically search through the literature. I must understand. I must know more about these cells: their complexities, their aberrations. I read the journals describing past experiments, and their language is foreign to me. I run to my supervisor for an interpretation. He explains my project a first time, a second time, a third time. He claims that my experiment is really simple. I claim that he's crazy. How can a project with so many facets be simple? Perhaps if I was studying amoeba or paramecia, I could accept his statement; but I am working with something far more complicated. I am researching retroviruses. The very sound of that word makes me anxious. Are they alive? Are they immortal? What do they do:

The endless questions feed the cells of frustration, yet there is still a greater desire to know. The cyclic quest for knowledge continues...

*Vicky Gou*  
*November 1998 ■*