



THE NATIONAL CANCER INSTITUTE AT FREDERICK

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NCI-Frederick among Top 15 Best Places to Work for Postdocs, According to *The Scientist*

By Ashley DeVine, Staff Writer

NCI-Frederick came in at number 14 in the U.S. “Top 40 Best Places to Work for Postdocs,” based on a survey by *The Scientist* magazine published March 1 (see <http://www.the-scientist.com>). The results praised NCI-Frederick in the areas of career development opportunities and family and personal life. Postdoc resources noted were the development program and the postdoc office.

“I am very pleased that NCI-Frederick has once again been ranked by *The Scientist* as one of the nation’s ‘Top 40 Best Places to Work for Postdocs.’ Training the next generation of research scientists is a core mission of NCI-Frederick, and one that we take very seriously. The staff at NCI-Frederick put a great deal of time and energy into providing the best possible environment for postdocs to work, and it is always rewarding for our staff to receive recognition by *The Scientist* for these efforts,” said Craig Reynolds, Ph.D., associate director, National Cancer Institute, and director, Office of Scientific Operations, NCI-Frederick.

In 2009 and 2010, NCI-Frederick ranked 19 and 21, respectively, in the “Top 40 Best Places to Work for Postdocs.”

The web-based survey was posted on *The Scientist*’s web site (<http://www.the-scientist.com>) from September 8 to November 29, 2010. The magazine sent e-mail invitations to its readers and to web site registrants who identified themselves as non-tenured life scientists working in academia, industry, or noncommercial research institutions. The magazine received 2,881 useable and qualified responses to the survey.

Survey participants were asked to assess their working environment by responding on a scale of 0–5 (5 = strongly agree; 1 = strongly disagree; and 3 = neither agree nor disagree) to 38 positive statements representing

nine areas: family and personal life, pay and benefits, equity, funding, value of the postdoc experience, career development opportunities and networking, and the quality of facilities and infrastructure, communication, and training and mentoring. Respondents were also asked to rate the importance of each of these positive statements on a scale of 0–5.

Seventy-six U.S. and 17 non-U.S. institutions that received five or more responses were included in the rankings. Scores for each of the 38 statements were averaged by institution and country. ■



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Presenting Research at International Meetings

Effect of FOXO3 Gene Presented at Cuban Conference

By Maritta Perry Grau, Staff Writer

Arthur “Andy” Hurwitz, Ph.D., head of the Tumor Immunity and Tolerance Section, Center for Cancer Research, NCI, presented recently at the biannual Latin American Immunology Society meeting in Havana, Cuba. The Center for Molecular Immunology, a Cuban research facility established under former Cuban president Fidel Castro, hosted the meeting. Hurwitz was the only NIH scientist in attendance.

Hurwitz presented his group’s findings on the FOXO3 gene and its effect on prostate tumors (*Journal of Clinical Investigation*, 121[4]:1361–1372, 2011). Their study indicated that FOXO3 “suppresses activation of cells related to immunity and thus leads to a reduced immune response against a growing cancer by identifying a gene that makes immune

cells suppressive, the researchers may have found a new target for enhancing immune responses to cancer tumor cells” (<http://www.cancer.gov/newscenter/pressreleases/2011/HurwitzFOXO3>).

Hurwitz noted that the biannual

invited experts from all around the world, so I was honored to be among these other scientists.”

Hurwitz said the location was a major attraction for him, and restrictions on travel were not too limiting. “Over the past few years, the relationship with Cuba has improved...Travel to Cuba for professional exchanges is not restricted, but is carefully regulated. When you get a visa to visit Cuba, you have to stay in the county for which the visa is issued. Therefore, we had to stay in Havana, but there were no restrictions within the city.”

Besides the excellent science on display and the opportunity to meet with fellow researchers, Hurwitz said he was “most impressed by the Cuban people. They were unbelievably friendly and



Andy Hurwitz, Ph.D, behind the wheel of a 1959 Buick Invicta in Havana, Cuba, found Cuban people very friendly and helpful.

meeting has been held for many years. “The science was excellent,” he said. “Although science is strong [in Cuba], unfortunately, opportunities [for research] are not as great as they are here in the U.S., Asia, and Europe. The organizers

helpful. The local scientists were also helpful and happy to learn about our work—I hope to be able to repay their hospitality. Some of the cars were pretty impressive, as well [see photo]. I even met a Cuban Red Sox fan.” ■

Occupational Health Services



Stephan Mann, MD, MPH, Named OHS Clinic Medicine Advisor

By Carolyn Cable, Occupational Health Services, Guest Writer

Occupational Health Services (OHS) announces that Stephan Mann, MD, MPH, is now the clinic’s occupational medicine advisor. Mann provides consultation services to the clinic and performs quality assurance reviews and critiques for the clinical staff.

Mann has a broad background in occupational medicine and is board-certified in occupational medicine by the American Board of Preventive

Medicine, as well as by the American Board of Family Physicians. He has also achieved certifications as an independent medical examiner, medical review officer, and air medical examiner. He is the medical director of Corporate Occupational Health Solutions and the Batelle National Biodefense Institute/National Biodefense Analysis and Countermeasures Center at Fort Detrick. ■

NCI-Frederick's Emergency Preparedness Plan

*By Randall Morin, Environment, Health,
and Safety, Guest Writer*

We have an **Emergency Preparedness Plan (EPP)**, formerly known as the Continuity of Operations Plan (COOP), at NCI-Frederick, as do most government organizations, so that in the event of natural or other disasters, we can continue the work of fighting cancer and AIDS.

You can expect that our EPP will be implemented during situations such as:

- Pandemic influenza,
- Fire,
- Power/water outage,
- Aircraft crash, or
- Natural disaster.

Who Implements Our EPP?

Putting such a contingency plan into effect happens through the efforts of the **Crisis Response Team**, under

guidance from the **Leadership Team**. The members of these teams make the strategic decisions on crisis management and communications. The **Support Team** coordinates all these activities, while the **Functional Unit Team** assesses the impact of the crisis on essential functions, recommends initial and subsequent actions, and responds to the emergency. Last, when the crisis has passed, the **Emergency Coordinator** determines when to deactivate the EPP.

What Does an EPP Do?

The EPP provides guidance for the continuity of essential functions during emergencies when NCI-Frederick operations cannot run at full capacity. The plan designates responsibilities for: leadership and support; for collecting information on the scope and impact of the situation; and for the submission of situational reports during and after an emergency or other event that disrupts normal operations.

How Do We Know When the EPP Is in Effect?

If you are not a member of the Crisis Response Team, you will be notified through phone trees, e-mail, and an NIH-managed emergency notification system called "Send Word Now" (see "Emergency Notification System: Important Instructions for All Employees," page 11). You should consult your supervisor for additional notification guidance that may pertain to individual programs.

Should I Report to Work?

SAIC-Frederick Protective Services maintains an updated roster of all essential functions personnel, including contractors, required to maintain minimal functions during an emergency. You should consult a supervisor for questions pertaining to the essential functions roster and any role you might have during an emergency. ■

NCI-Frederick Awards

Tha and Osborne Selected as LASP Employees of the Month

By Jim Stull and Ruth Green, LASP, Guest Writers

Mai Ni Cuai Thawng Tha, animal caretaker II, was selected as employee of the month for January 2011 by her peers in the Laboratory Animal Sciences Program (LASP). Tha was described as a hard worker, very helpful to her co-workers, and always willing to help wherever needed. She is a dedicated, conscientious employee and very important to the success of the program.

No employee was selected for February.

Marie Osborne, laboratory animal care II, was selected as employee of the month for March. Osborne is described as a team player and always willing to help other staff members if needed; she is kind to her fellow co-workers and always uses great judgment. ■



Mai Ni Cuai Thawng Tha



Marie Osborne

NCI-Frederick Recognized for Emphasis on Next Generation of Scientists

By Nancy Parrish, Staff Writer

The Frederick County Chamber of Commerce honored NCI-Frederick with a “Live Here Work Here” award at a ceremony on March 16 at the Weinberg Center in Frederick. This award recognizes “individuals and businesses who have contributed to the quality of life in Frederick County, with a special emphasis on education,” according to the Chamber of Commerce web site.¹ NCI-Frederick previously earned this award in 2003 and in 2006.

The award citation noted that “NCI employees are on a mission to help train the next generation of research scientists” by offering special programs in the elementary schools as well as providing “mentoring, fellowships, summer and after-school employment, and scholarships,” to high school, undergraduate and graduate students.²

Accepting the award were Barbara Birnman, public affairs specialist, and Julie Hartman, education program specialist, both of the NCI-Frederick Office of Scientific Operations. “It was very exciting receiving the award this

year because we did not have advance notice of the winner,” Birnman said. “The other finalist, the U.S. Army Garrison, Fort Detrick, was certainly a formidable competitor. When they announced that the NCI-Frederick had won, it was great!”

Birnman believes that NCI-Frederick’s commitment to education is “exceptional because the programs that are supported actually work, are ongoing, . . . and are used as models for programs in other agencies. Concentrating on elementary, middle, and high school students is critical in helping the students realize, at an early age, they can have a wonderful career in science.” The programs for college and postgraduate students provide continuing support in the lab as well as through mentoring and networking opportunities, she said.



Barbara Birnman and Julie Hartman accepted the 2011 Live Here Work Here award from the Frederick County Chamber of Commerce. Birnman noted that they accepted it “on behalf of all of the volunteers, mentors, and colleagues without whom all of the programs we support would not be successful.” Left to right: Richard Adams, Chamber President and CEO; Birnman; Hartman; and Paul Frey, Chamber Vice President. *Photo courtesy of Turner Photography.*

Sources:

1. http://www.frederickchamber.org/cwt/external/wcpages/programs/LHWH_awards.aspx
2. <http://frederickcountymdcoc.weblinkconnect.com/cwt/External/WCPages/WCEvents/EventDetail.aspx?EventID=282426> ■

SAIC-Frederick and DMS Recognized by Tech Council of Maryland

By Ashley DeVine, Staff Writer

SAIC-Frederick and Data Management Services (DMS) were recognized in March at the Tech Council of Maryland’s (TCM’s) ninth annual Frederick County Tech Awards celebration at Holly Hills Country Club in Ijamsville.

Larry Arthur, Ph.D., chief executive officer (CEO) of SAIC-Frederick, was named Frederick County CEO of the Year, and DMS was named Frederick County Firm of the Year.

Arthur’s award recognizes CEOs for “outstanding contributions and accomplishments during the 2010 fiscal year,” according to TCM’s 2011 Frederick County Nomination Form. “It’s great to have the opportunity to be recognized for the work we’ve done at SAIC-Frederick,” Arthur said.

The Firm of the Year award goes to the company that “has exhibited strong growth of revenue and employment, and contributed to the advancement of technology in 2010,” according to the nomination form.



Larry Arthur (holding award) with (from left) Laurie Boyer, Frederick County Office of Economic Development; Renee Winsky, Tech Council of Maryland; and Joe Faber, Comcast. *Photo courtesy of the Tech Council of Maryland.*

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In accepting the award, Jim Racheff, CEO of DMS, attributed the company's success to its employees. "Being recognized as the firm of the year is a testament to the good people DMS has been fortunate to recruit and retain—good people that are dedicated to their work, dedicated to supporting science, and dedicated to serving our clients," Racheff said. "I am often amazed at how much a small group of people can accomplish through their combined efforts."

"Over the past ten years Frederick County has grown by more than 19 percent. This year's winners have all played an important role in contributing to that growth and strengthening the tech and biotech community," Michelle Ferrone, vice president, Marketing and Operations, TCM, said in an e-mail notifying the winners of the Frederick County TCM awards.

The TCM awards are open to all companies in the mid-Atlantic region that have done business in the region during 2010. ■



Jim Racheff (holding award) with (from left) Laurie Boyer, Frederick County Office of Economic Development; Renee Winsky, Tech Council of Maryland; and Joe Faber, Comcast. *Photo courtesy of the Tech Council of Maryland.*

Two Researchers Recognized with Awards

By Ashley DeVine, Staff Writer

Deborah Hodge, Ph.D., staff

scientist, Laboratory of Experimental Immunology, Cancer and Inflammation Program, Center for Cancer Research, NCI-Frederick, was awarded a 2010 Milstein Travel Award from the International Society for Interferon and Cytokine Research (ISICR).



"This is a very generous award that enables researchers to meet other experts in their field and exchange information. I feel that without this award many scientists may lose out on the opportunity to attend an important international meeting," she said.

Hodge presented her abstract at the Joint Conference of the International Cytokine Society (ICS) and ISICR, held October 3–7, 2010; the abstract was titled "CS1-2 Targeted Removal of IFN-gamma 3' Untranslated Region AU-rich Element Alters B Cell Function, Resulting in Lupus-like Disease in C57BL6 Mice."

Hodge and colleagues discovered a conserved AU-rich element in the 3'

untranslated region of the interferon gamma gene. "We created a mouse with a targeted 162 nt deletion of this region and found that the mouse had low circulating levels of interferon gamma," Hodge said.

As a result, the mouse became sick with an autoimmune disease resembling human lupus. The mouse exhibited alterations in the activation and location of B cells, which are primary players in lupus development.

"We are currently working to understand the mechanism by which interferon gamma, either directly or indirectly, alters the function of these B cells," Hodge said. "We feel that by understanding this, we may be able to better understand the initiation events that are responsible for this complex and devastating disease."

Hodge began working at NCI-Frederick in 1997. She has a Ph.D. in biochemistry from West Virginia University.

Xing Zhang, Ph.D., postdoctoral fellow, Laboratory of Human Retrovirology, Clinical Services Program, Applied and Developmental Research Directorate, SAIC-Frederick, was awarded a 2010 Postdoctoral Investigator Award from ICS and a 2010 Milstein Travel Award from ISICR.



"I feel very excited to receive the awards," Zhang said. "It suggests that our research findings are recognized as innovative and meaningful by peer scientists in the immunology field."

Zhang also presented research at the Joint Conference of ICS and ISICR, on the following abstract: "Ku70 Is a Novel Cytosolic DNA Sensor and Induces Type-III IFN Rather Than Type-I IFN," which was later published in *The Journal of Immunology* as a "Cutting Edge" article (186[8]:4541–4545, 2011).

"The challenge of the project was to characterize the mechanism by which DNA virus and plasmid specifically induce type-III [interferon] IFN rather than type-I IFN," he said. Zhang and colleagues demonstrated that Ku70, a previously known DNA repair protein, is a novel cytosolic DNA sensor that activates type-III IFN. Clinical studies have shown that type-III IFN has fewer toxic side effects than type-I IFN (IFN- α 2b), and, therefore, may be an alternative therapy to IFN- α 2b.

"I want to express my appreciation to my team, especially my supervisor, Dr. Tom Imamichi, who shows me that science should have no limits," said Zhang, who began working at NCI-Frederick in December 2008. He earned his Ph.D. in biochemistry at the University of Houston. ■

Study Reveals Potential Target for Slowing Alzheimer's Disease

By Nancy Parrish, Staff Writer

One of the markers of Alzheimer's disease (AD) is accumulation of A β 1-40 peptides that aggregate into fibrils in the brain. The multi-pathway of the assembly process is still controversial, according to Yifat Miller, Ph.D., Center for Cancer Research Nanobiology Program (CCRNP). However, she said, determining the full molecular structures of A β 1-40 may lead to therapeutics that target A β 1-40 fibril formation at an early stage of the disease.

Recently, solid-state nuclear magnetic resonance (ssNMR) measurements revealed a unique triangular structure of the A β 1-40 fibril. This finding led to two significant discoveries by Miller and colleagues in CCRNP. Using the ssNMR data to create all-atom molecular dynamics simulations in explicit solvent, they found that (1) the unique A β 1-40 triangular structure has a cavity along the fibril axis, and (2) the N-termini play

a crucial role in the stability of the fibril by interacting with the U-turn or the C-termini domains. Miller and colleagues further illustrated polymorphic triangular structures due to the difference in the U-turn shape, as they had demonstrated for A β 17-42 (Miller et al., *Biophys J* 97[4]:1168-1177, 2009).

"Our study illuminates the molecular features of the unique triangular A β 1-40 fibrils and provides information that may encourage future work on an attractive target to disrupt this unique triangular fibrillar," Miller said. "Small molecules that can disrupt the interactions between the N-termini and the U-turn domains may be developed to interrupt the growth of the fibrils, and consequently, the fibrils' surface will be more accessible to drugs."

Miller, a visiting postdoctoral fellow in the Computational Structural Biology Group of CCRNP, received her doctorate in computational physical chemistry from the Hebrew University of Jerusalem in 2007. She joined CCRNP in 2008, and her work has focused on "the structural variability of potential conformations of Alzheimer's A β under various conditions



Yifat Miller, Ph.D., Center for Cancer Research Nanobiology Program, NCI-Frederick

and the self-assembly mechanism leading to ordered fibril formation," she said.

Miller plans to return to Israel in September to become a senior lecturer in the chemistry department of the Ben-Gurion University of the Negev. ■

The Unique Alzheimer's β -Amyloid Triangular Fibril Has a Cavity along the Fibril Axis under Physiological Conditions

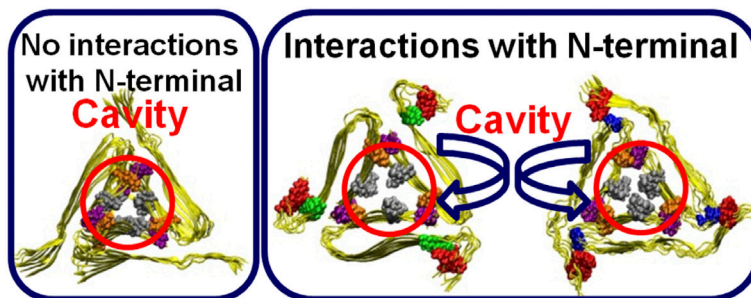
Yifat Miller, Buyong Ma, and Ruth Nussinov

Journal of the American Chemical Society 133, 2742-2748, 2011

Elucidating the structure of A β 1-40 fibrils is of interest in Alzheimer's disease research because it is required for designing therapeutics that target A β 1-40 fibril formation at an early stage of the disease. M35 is a crucial residue because of its potential oxidation and its strong interactions across β -strands and across β -sheets in A β fibrils. Experimentally, data for the threefold symmetry structure of the A β 9-40 fibril suggest formation of tight hydrophobic core through M35 interactions across the fibril axis and strong I31-V39 interactions between different cross- β units. Herein, on the basis of experimental data, we probe conformers with threefold symmetry of the full-length A β 1-40. Our all-atom

molecular dynamics simulations in explicit solvent of conformers based on the ssNMR data reproduced experimental observations of M35-M35 and I31-V39 distances. We revealed that the unique A β 1-40 triangular structure has a large cavity along the fibril axis and that the N-termini can assist in the stabilization of the fibril by interacting with the U-turn domains or with the C-termini

domains. Our findings, together with the recent cryoEM characterization of the hollow core in A β 1-42 fibrils (Miller et al. PNAS, 107:14128-14133, 2010), point to the relevance of a cavity in A β 1-40/1-42 oligomers, which should be considered when targeting oligomer toxicity. ■



Polymorphism in triangular A β 1-40 fibril: M35 in the hydrophobic cavity and I31-V39 interactions between cross- β units. Left: The N-termini are flexible. Middle: F4-V12 interactions. Right: F4-G25 interactions.

The following 34 articles have been selected from 14 of the most prestigious science journals published during the past quarter.

Alzheimer's Disease

Miller Y, Ma B, Nussinov R. The unique Alzheimer's beta-amyloid triangular fibril has a cavity along the fibril axis under physiological conditions. *J Am Chem Soc* 133(8):2742–2748, 2011.

Parthasarathy S, Long F, Miller Y, Xiao YL, McElheny D, Thurber K, Ma BY, Nussinov R, Ishii Y. Molecular-level examination of Cu²⁺ binding structure for amyloid fibrils of 40-residue Alzheimer's beta by solid-state NMR spectroscopy. *J Am Chem Soc* 133(10):3390–3400, 2011.

Cell and Tumor Biology

Fukuda Y, Aguilar-Bryan L, Vaxillaire M, Dechaume A, Wang Y, Dean M, Moitra K, Bryan J, Schuetz JD. Conserved intramolecular disulfide bond is critical to trafficking and fate of ATP-binding cassette (ABC) transporters ABCB6 and sulfonylurea receptor 1 (SUR1)/ABCC8. *J Biol Chem* 286(10):8481–8492, 2011.

Gabrieli G, Yi M, Narayan RS, Niers JM, Wurdinger T, Imitola J, Ligon KL, Kesari S, Esau C, Stephens RM, Tannous BA, Krichevsky AM. Human glioma growth is controlled by MicroRNA-10b. *Cancer Res* 2011.

Kanamaluru D, Xiao Z, Fang SS, Choi SE, Kim DH, Veenstra TD, Kemper JK. Arginine methylation by PRMT5 at a naturally occurring mutation site is critical for liver metabolic regulation by small heterodimer partner. *Mol Cell Biol* 31(7):1540–1550, 2011.

Sandovici I, Smith NH, Nitert MD, Ackers-Johnson M, Uribe-Lewis S, Ito Y, Jones RH, Marquez VE, Cairns W, Tadayyon M, O'Neill LP, Murrell A, Ling C, Constanica M, Ozanne SE. Maternal diet and aging alter the epigenetic control of a promoter-enhancer interaction at the *Hnf4a* gene in rat pancreatic islets. *Proc Natl Acad Sci U S A* 108(13):5449–5454, 2011.

Stauffer JK, Scarzello AJ, Andersen JB, De Kluyver RL, Back TC, Weiss JM, Thorgeirsson SS, Wiltrout RH. Co-activation of AKT and beta-Catenin in mice rapidly induces formation of lipogenic liver tumors. *Cancer Res* 71(7):2718–2727, 2011.

Cellular Immunology and Immune Regulation

Catalfamo M, Wilhelm C, Tcheung L, Proschan M, Friesen T, Park JH, Adelsberger J, Baseler M, Maldarelli F, Davey R, Roby G, Rehm C, Lane C. CD4 and CD8 T-cell immune activation during chronic HIV infection: Roles of homeostasis, HIV, type I IFN, and IL-7. *J Immunol* 186(4):2106–2116, 2011.

Lin Q, Fang D, Hou XW, Le YY, Fang JH, Wen F, Gong WH, Chen KQ, Wang JM, Su SB. HCV peptide (C5A), an amphipathic alpha-helical peptide of hepatitis virus C, is an activator of N-formyl peptide receptor in human phagocytes. *J Immunol* 186(4):2087–2094, 2011.

Developmental Biology

Naiche LA, Holder N, Lewandoski M. FGF4 and FGF8 comprise the wavefront activity that controls somitogenesis. *Proc Natl Acad Sci U S A* 108(10):4018–4023, 2011.

Tao YG, Xi SC, Shan JG, Maunakea A, Che A, Briones V, Lee EY, Geiman T, Huang JQ, Stephens R, Leighty RM, Zhao KJ, Muegge K. Lsh, chromatin remodeling family member, modulates genome-wide cytosine methylation patterns at nonrepeat sequences. *Proc Natl Acad Sci U S A* 108(14):5626–5631, 2011.

Yonamine I, Bamba T, Nirala NK, Jesmin N, Kosakowska-Cholody T, Nagashima K, Fukusaki E, Acharya JK, Acharya U. Sphingosine kinases and their metabolites modulate endolysosomal trafficking in photoreceptors. *J Cell Biol* 192(4):557–567, 2011.

DNA Dynamics and Chromosome Structure

Aggarwal M, Sommers JA, Shoemaker RH, Brosh RM. Inhibition of helicase activity by a small molecule impairs Werner syndrome helicase (WRN) function in the cellular response to DNA damage or replication stress. *Proc Natl Acad Sci U S A* 108(4):1525–1530, 2011.

Genomics, Proteomics, and Bioinformatics

Jacobs K, Hutchinson A, Thomas G, Wang Z, Yeager M. Genome-wide association study of renal cell carcinoma identifies two susceptibility loci on 2p21 and 11q13.3. *Nat Genet* 43(1):60–65+, 2011.

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Hemostasis, Thrombosis, and Vascular Biology

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HIV

Batorsky R, Kearney MF, Palmer SE, Maldarelli F, Rouzine IM, Coffin JM. Estimate of effective recombination rate and average selection coefficient for HIV in chronic infection. *Proc Natl Acad Sci U S A* 108(14):5661–5666, 2011.

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Host Defense

Qi J, Buzas K, Fan H, Cohen JI, Wang K, Mont E, Klinman D, Oppenheim JJ, Howard OM. Painful pathways induced by TLR stimulation of dorsal root ganglion neurons. *J Immunol* 2011.

Immunobiology

McCormack M, Alfirevic A, Bourgeois S, Farrell JJ, Kasperaviciute D, Carrington M, Sills GJ, Marson T, Jia XM, de Bakker PIW, Chinthapalli K, Molokhia M, Johnson MR, O'Connor GD, Chaila E, Alhusaini S, Shianna KV, Radtke RA, Heinzen EL, Walley N, Pandolfo M, Pichler W, Park BK, Depondt C, Sisodiya

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Platinum Publications

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SM, Goldstein DB, Deloukas P, Delanty N, Cavalleri GL, Pirmohamed M. HLA-A*3101 and carbamazepine-induced hypersensitivity reactions in Europeans. *N Engl J Med* 364(12):1134–1143, 2011.

Watkins SK, Zhu ZQ, Riboldi E, Shafer-Weaver KA, Stagliano KER, Sklavos MM, Ambs S, Yagita H, Hurwitz AA. FOXO3 programs tumor-associated DCs to become tolerogenic in human and murine prostate cancer. *J Clin Invest* 121(4):1361–1372, 2011.

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Zaidi MR, Davis S, Noonan FP, Graff-Cherry C, Hawley TS, Walker RL, Feigenbaum L, Fuchs E, Lyakh L, Young HA, Hornyak TJ, Arnheiter H, Trinchieri G, Meltzer PS, De Fabo EC, Merlino G. Interferon-gamma links ultraviolet radiation to melanomagenesis in mice. *Nature* 469(7331):548–553+, 2011.

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Bliskovsky V, Wu JZ, Sakakibara K, Patel J, Parent CA, Tessarollo L, Schwartzberg PL, Mock BA. Constitutive reductions in mTOR alter cell size, immune cell development, and antibody production. *Blood* 117(4):1228–1238, 2011.

Zhang X, Brann TW, Zhou M, Yang J, Oguariri RM, Lidie KB, Imamichi H, Huang DW, Lempicki RA, Baseler MW, Veenstra TD, Young HA, Lane HC, Imamichi T. Cutting Edge: Ku70 is a novel cytosolic DNA sensor that induces type III rather than type I IFN. *J Immunol* 2011.

Immunology

Walseng E, Furuta K, Goldszmid RS, Weih KA, Sher A, Roche PA. Dendritic cell activation prevents MHC class II ubiquitination and promotes MHC class II survival, regardless of the activation stimulus. *J Biol Chem* 285(53):41749–41754, 2010.

Inflammation

Melillo G. Hypoxia: jump-starting inflammation. *Blood* 117(9):2561–2562, 2011.

Lymphoid Neoplasia

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Web Sites of Note

By Ashley DeVine, Staff Writer

Throughout the newsletter, you'll find web sites that provide you with more information than we can put in the articles. In addition, many days, weeks, and months are devoted to the recognition of particular health care issues. Here are a few dates that seem most pertinent to NCI-Frederick.

June

National HIV Testing Day, June 27:

http://www.hivtest.org/press_files/default.aspx and <http://www.hhs.gov/aidsawarenessdays/days/testing/>

Fireworks Safety Month, June 1–July 4:

<http://www.nfpa.org/categoryList.asp?categoryID=297&URL=Safety%20Information/For%20consumers/Holidays/Fireworks> and <http://www.preventblindness.org/safety/fireworksafety.html>

July

World Hepatitis Day, July 28: <http://worldhepatitisalliance.org/WorldHepatitisDay.aspx>

UV Safety Month: <http://www.healthfinder.gov/nho/JulToolkit.aspx>

August

National Immunization Awareness Month:

<http://www.cdc.gov/vaccines/spec-grps/adults.htm> and <http://www.cdc.gov/vaccines/>

Cataract Awareness Month: <http://www.aao.org/eyecare/news/August-is-National-Cataract-Awareness-Month.cfm>

Spring Research Festival

SRF Promotes Scientific Collaboration despite the Weather

By Ashley DeVine, Staff Writer

The 15th annual Spring Research Festival (SRF) kicked off April 26 with the postdoctoral/postbaccalaureate symposium, “Cellular Mechanisms in Cancer, Autoimmunity, and Infectious Diseases,” chaired by Ira Daar, Ph.D., principal investigator, Developmental Signal Transduction Section, Laboratory of Cell and Developmental Signaling (LCDS), NCI-Frederick. The keynote address was presented by Silvio Gutkind, Ph.D., chief of the Cell Growth Regulation Section and the Molecular Carcinogenesis Unit, National Institute of Dental and Craniofacial Research.

The following postdoctoral and postbaccalaureate fellows received certificates and cash awards for their presentations at the symposium:

Postdoctoral Winners

First prize: Smita Kulkarni-Patel, Ph.D., Laboratory of Experimental Immunology, SAIC-Frederick, “Differential microRNA Regulation of HLA-C Expression and Its Association with HIV Control”

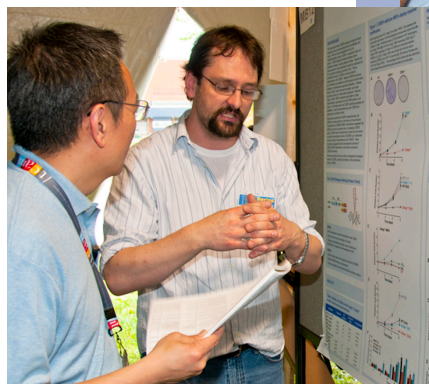
Second prize: Alyson Freeman, Ph.D., LCDS, NCI-Frederick, “Differential Effects of Dimerization on B-Raf and C-Raf Kinase Activity in Normal and Disease Signaling”



Third prize: George Lountos, Ph.D., Macromolecular Crystallography Laboratory, NCI-Frederick, “Structure-Assisted Design of Checkpoint Kinase 2 Inhibitors as Novel Anticancer Agents”

Postbaccalaureate Winner

Ashley Denney, Gene Regulation and Chromosome Biology Laboratory, NCI-Frederick, “A Novel Assay for Investigating Transcriptional Fidelity in *Saccharomyces cerevisiae*”



On April 27 and 28, scientists, postdocs, research technicians, and students presented 181 posters on current research discoveries. Winners will be announced in upcoming issues of *News & Views* and the *Poster*. “It was a fantastic festival with lots of scientific collaboration despite the weather,” said Julie Hartman, SRF chair.

Exhibitors Liked New Location

Also on both days, the Health Education and Community Services Exhibition featuring a sampling of the scientific research at the National Interagency Confederation for Biological Research was displayed. “Many of our exhibitors were pleased with the layout and believed their information was seen more by all of the attendees,” Hartman said.



Although vendors involved in the Biomedical Research Equipment and Sales Expo did not attend the second day of the festival due to the weather, nearly 200 companies showcased the latest scientific equipment and technology on April 27.

Giveaway Items Offered and Prizes Awarded

In place of T-shirts this year, the SRF Committee purchased giveaway items. All poster presenters and exhibitor participants received insulated, extra-large NCI-Frederick lunch bags.

The science poster scavenger hunt, a new activity this year, did not work out as planned, so members of the SRF Committee randomly selected winners from the poster presenters. The winners were: William Bruckart, U.S. Department of Agriculture; Christopher Conner, NCI-Frederick; Duncan Donohue, SAIC-Frederick; Megan Hill, U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID); Nicolas Homble, NCI-Frederick; Jim Jaissle, USAMRIID; Hyunbum Jang, SAIC-Frederick; Nishani Kuruppu, NCI-Frederick; Virginia Livingston, USAMRIID; Saddam Muthana, NCI-Frederick; Kaustav Nandy, SAIC-Frederick; Dara Riva, SAIC-Frederick; Martha Sklavos, NCI-Frederick; Alexander Stuffer, NCI-Frederick; and Rebecca Vieira, USAMRIID.

Prizes included gift cards, flash drives, and business pens, and were donated from BioLegend; Bulldog Bio, Inc.; Lonza Walkersville; Miltenyi Biotec; New England Biolabs; and Sarstedt, Inc.

“I am hopeful to secure an asphalt area for the festival next year so we can leave our boots at home,” Hartman said. ■

New Look for Web Site

Welcome to the New NCI-Frederick Online Presence

By Jillian DeShazer, Guest Writer

The first phase of the new NCI-Frederick web site was launched on May 2, and by now you have probably become familiar with it. The new web site has a new look and feel, as well as extensive organizational and structural changes that we think visitors will appreciate.

The primary task for the NCI-Frederick Web Design and Development Team (web team) was to determine how the community was utilizing the NCI-Frederick web site and web-based systems, as well as to identify areas for improvement. We compiled user data from various sources—web surveys, personal surveys, web metrics, and user suggestions—to determine the areas where most users experienced problems.

The resulting features and enhancements are intended to make the site easier to navigate, as well as to highlight valuable information about what we do here. As our goal is to provide you with the best possible tools to carry out your daily activities, we hope that you will take the time to review the enhancements and give us your feedback.

Phased Approach

One of the primary goals of this redesign was to provide a more consistent user experience by unifying the look and feel of the various applications used across the NCI-Frederick community. Due to the large amount of existing content, several releases of the web site will be necessary to achieve this vision.

Over the next several months, the web team will be updating legacy content and applications across the site. During this time, we will continue to reach out to the NCI-Frederick community for feedback and suggestions.



Key to significant changes identified by number in the image above:

1. Enhanced search interface—"radio buttons" allow you to narrow your search to "Services" or the "Phonebook."
2. Phonebook link—appears in the main NCI-Frederick banner as an icon. You may still access the Phonebook via the search or through the "About" section.
3. New navigation—is streamlined and easier to read. Click on "Expand Navigation" for expanded menu options.
4. Enhanced rotating feature article area—use the numeric buttons located at the top of the article area to select which article you would like to preview. Placing your mouse over the article image will pause the rotation and allow you more time to read. Clicking on the down arrow beside the article title allows you to read an expanded preview of the article.
5. NCI-Frederick at a Glance—previews the main content found under the "About NCI-F" section, including, but not limited to, a new "Visitor's Guide", a "Who To Contact" quicklist, and the full NCI-Frederick calendar.
6. Events and Notices—the "Events" tab now shows more upcoming events. Clicking on the "Notices" tab displays a list of pertinent staff notices.
7. User-directed content—this center area allows you to navigate to more information based on your interest. Each section title describes the type of information it contains, and you may (a) click on the section title to be taken to a page containing all available information on that topic/interest

continued on page 11

Emergency Notification System: Important Instructions for All Employees

By Tom Gannon-Miller, Protective Services, Guest Writer

The "Send Word Now" (SWN) emergency notification system automatically alerts employees to power outages, base closings, inclement weather conditions, and other emergencies. The system works well only when employees confirm their receipt of the message by listening all the way through to the end of the message.

Please follow the instructions below on what to do when you receive an emergency call from the SWN system. Keep these instructions in a safe place.



What to Do When You Receive a "Send Word Now" Telephone Call

1. When you answer your phone, you will hear the SWN introduction:

Example: *"This is Tom Gannon-Miller, Manager of Protective Services, and this is a message from Send Word Now, NCI-Frederick's emergency notification system. Please listen to the entire message for instructions on confirming receipt and important contact information. You may hang up only after you have heard the emergency telephone number given at the end of the message."*

2. The SWN operator (a recording) will announce the following:

"To pause during the message, press #."

You will then hear a detailed message regarding the emergency. For example, if the NCI-Frederick campus has experienced a power outage, the message will describe what buildings have been affected, the exact time of the outage, and any other relevant information.

3. The SWN operator will then announce:

"The sender left the following reply option. To select, press 1."

4. After you press 1, the SWN operator will announce:

"You have selected 1. Press 1 to confirm receipt of this message."

5. The SWN operator will announce:

*"To repeat the message or options, press *.
To change your reply, enter it now, or press # to end."*

6. After you press #, the SWN operator will announce:

"The sender left the following contact information. Phone number 301-846-1380."

7. After you hear the phone number, you may hang up.

The message has been confirmed.

Remember:

- You must press 1 (Step 3) and # (Step 5) to receive credit for confirming the message.
- You must wait until you hear the emergency telephone number before you may hang up.
- You may call the phone number given to obtain additional information about the emergency.

If you have any questions regarding the "Send Word Now" notification system, please contact Tom Gannon-Miller at 301-846-1380 or gannonmillert@mail.nih.gov. ■

continued from page 10

area; or (b) click on the plus (+) icon to expand a list of selected links from within that topic/interest area.

8. NCI-F Quicklinks—are included on every page within the web site.

9. Special notices—appear on each section-specific home page and allow for graphical content. Notices rotate in random order on each new page visit or refresh. Groups who have information that they would like to display but do not have enough content for a rotating feature article may display their information here.

Reminder: NCI-Frederick's new web address is

<http://ncifrederick.cancer.gov>

Be sure to update your bookmarks and links.

Coming Soon

Thanks to a great crew of volunteer usability testers, we have a long list of enhancements that we will be working on in the coming months, including, but not limited to: search results ranking, phonebook search enhancements, and an expanded events calendar application.

If you have a suggestion for, or wish to comment on, the NCI-Frederick web site or any related application, please contact Emily Bivona, project manager, at emily.bivona@nih.gov, or 301-846-1480. ■

Cloud Computing Provides Innovative Tools for Researchers

By Shannon McWilliams,
IT Systems Specialist, Guest Writer

The emergence of “cloud” computing¹ rests on many complex technologies and borrows extensively from common computing practices developed over the last 50 years. While some hail the cloud as the next big thing, others regard it as much ado about nothing, viewing it as just a continuation of a long trajectory of computing progress. Either way, there are some great capabilities due to these technology changes that are coming online to assist the cancer and AIDS research community.

From Punch Cards to High-Speed Networking and Virtualization

Through the years, computing models have changed as the underlying technology changed. Early on, mainframes dominated, and the only way to get access was through punch cards handed to operators. This technology gave way to interactive terminals that let the user share with other users in real time. At NCI-Frederick, we brought on one of the earliest supercomputers, a Cray, to assist with biomedical research.

As the computational power of desktop computers grew relative to the informatics needs of biologists, desktops took precedence in capturing and analyzing data. Now, with the torrent of data coming online from third-generation sequencers and higher-throughput laboratory automation, the need is again acute for computing power that is greater than the desktop or laptop can provide.

In the face of these challenges, new technologies are enabling new workflows. Over the last year, the Information Systems Program (ISP) has been aggressively repositioning its

technology stack to bring in high-speed networking and virtualization.

Increased Bandwidth Improves Access to Off-Site Facilities

A 10-gigabit-per-second connection between NCI-Frederick and the NIH main campus is now operational. This tenfold increase in bandwidth reduces data transfer bottlenecks between the laboratories, where the data is generated, and computational resources, where it is analyzed and stored. Removing or lowering these barriers provides researchers with more ubiquitous access to the analysis infrastructure and opportunities for collaborations between the laboratories that are connected to the NIH network, regardless of their geographical location.

As a result of the recent data transfer and outbound computing experiments that the ISP staff conducted in conjunction with the Pittsburgh Supercomputing Center, a routing change was implemented to optimize the NIH access to the National Lambda Rail² and Internet2³, national high-speed networks connecting major research institutions.

Virtualization Technology Saves Time and Money

Alongside these network improvements, steady progress in virtualization technology is under way. Extensive ISP testing and operational experience with each of the major virtualization platforms culminated with the selection of VMware as the primary platform. Currently, 72 cores are available, with another 128 coming online in the next months. Virtualization may provide researchers with needed server configurations in days instead of weeks, and potentially at a fraction of the cost.

In the coming year, ISP will be testing various ways to make these resources even more fault-tolerant and to increase their availability to researchers.

Putting the Cloud to Work

How these new computing technologies will come together to make the cloud valuable can already be seen in the NIH Human Microbiome Project’s genomics tool, CloVR⁴. CloVR is an open-source virtual machine for sequencing analysis that utilizes cloud computing platforms such as Amazon EC2⁵ or DIAG.⁶ Able to scale to 1,280 CPUs, CloVR provides tremendous sequencing throughput.

Though the informatics needs in the biomedical community appear at times to be outstripping the pace of compute and storage technological advancement, savvy use of emerging computing tools such as clouds could provide a way for tools to handle the volume. More depth on this topic can be found in Lincoln D. Stein’s informative paper, “The Case for Cloud Computing in Genome Informatics.”⁷

For more information, you may contact Shannon McWilliams at 301-846-1530 or mcwilliamsjs@mail.nih.gov.

References:

1. <http://nist.gov/itl/cloud;>
2. <http://nlr.net>
3. <http://internet2.edu>
4. <http://clovr.org>
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6. <http://diagcomputing.org>
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Do's and Don'ts of Social Media

Social Media Guidelines Released for NCI Staff

By Ashley DeVine, Staff Writer

The NCI Office of Communications and Education (OCE) released social media guidelines at the end of March to inform NCI staff about the standards we must follow when creating an NCI blog, Facebook page, or Twitter account, or when submitting a video to the NCI YouTube channel. These standards also apply to employees officially representing NCI on any of these social media web sites.

Facebook, Twitter, and Blogs

To create an NCI Facebook page, Twitter account, or blog, employees must receive permission from senior management in their NCI division, office, or center (DOC), who agrees to authorize and own the account. The DOC director will serve as the joint owner of the Facebook page, Twitter account, or blog. If you do not know who your DOC director is, contact your DOC communications contact for assistance. The DOC communications contact for NCI-Frederick is Cheryl Parrott, director, Public Affairs, NCI-Frederick (301-846-5382; parrottc@mail.nih.gov); Center for Cancer Research (CCR) is Kimberly Martin, manager, CCR Office of Communications (301-594-5990; martinkim@mail.nih.gov); and SAIC-Frederick is Frank Blanchard, director, Public Affairs, SAIC-Frederick (301-846-1893; blanchardf@mail.nih.gov). A complete list of DOC communications contacts can be found at <http://oce.nci.nih.gov/planning/div-com-mgrs.cfm>.

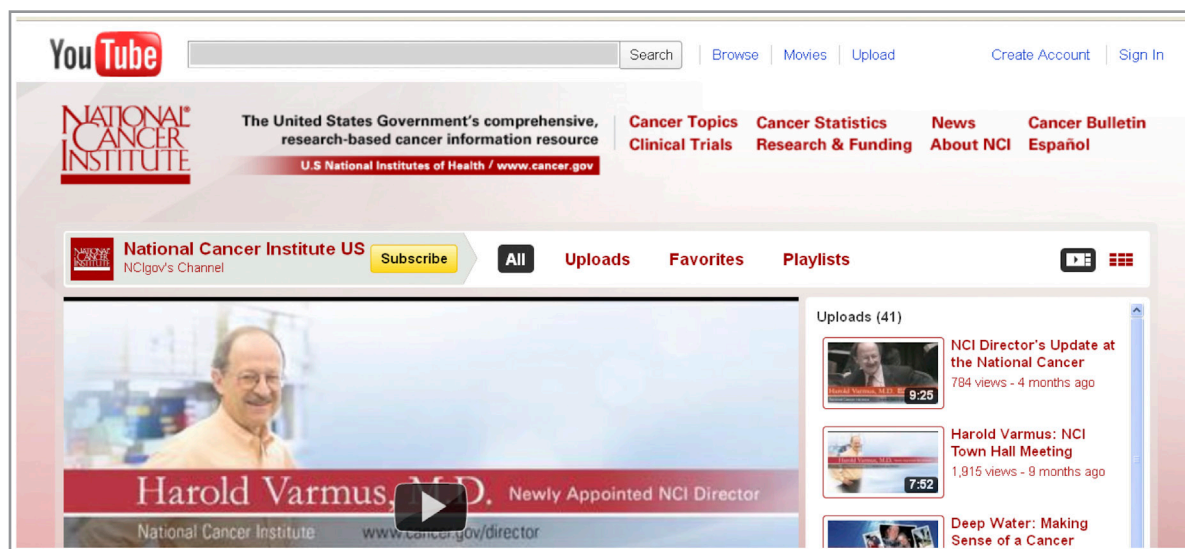
The use of social media platforms should be considered part of an official NCI communications effort. The first step to setting up a director-approved NCI Facebook page, Twitter account,

or blog is to discuss your ideas with your DOC communications contact and ask him/her to fill out and submit the online registration form(s) for NCI Facebook, Twitter, or blogs. Your OCE Communications Planning and Coordination Branch's (CPCB) communication program manager also can provide planning advice and best practices for creating these accounts. The communication program manager for NCI-Frederick is Li Gwatkin (301-594-9001; li.gwatkin@nih.gov).

Your DOC communications contact must submit your request and provide some basic information about the director-approved Facebook page, Twitter account, or blog to NCI's OCE and the Center for Bioinformatics and

YouTube channel. Individual DOCs cannot create their own YouTube channels or sub-channels, or post their public-facing videos on any other video-sharing platform. Videos posted on the NCIgov Network must also be posted on an official NCI web site.

To have your video considered for posting on the NCIgov Network, it must be approved by your DOC director and must meet the requirements in the video production checklist (go to <http://oce.nci.nih.gov/planning/guidelines/video-checklist.pdf>). Once your video meets the checklist requirements and other guidelines, you can fill out the online request form at <http://oce.nci.nih.gov/planning/guidelines/video-request.cfm>. OCE will work with you to post your



Information Technology. An additional requirement for NCI Facebook pages is that they must have at least two co-administrators with log-in permission, one of whom is the primary point of contact. The completed registration form(s) will go to OCE for review and approval, and a copy will be sent to the DOC communications contact. NCI OCE will notify the DOC communications contact if the registration has been accepted or not.

NCI YouTube Channel

The NCI YouTube channel, called the NCIgov Network (<http://www.youtube.com/ncigov>), is the only approved NCI

video to the NCIgov Network.

For More Information

A number of other standards and key recommendations for all NCI social media activities are laid out in NCI's social media guidelines, including information on comments policies, 508 accessibility captioning, and style and design standards. These guidelines and the registration and request forms for the social media platforms described above can be found at <http://oce.nci.nih.gov/planning/guidelines/>. ■



Congratulations to the March 2011 Poster Puzzler winner! Felicia Krapf, IT program administrator, Developmental Therapeutics Program Computer Center, Applied and Developmental Research Directorate, SAIC-Frederick, is pictured, right, with Paul Miller, executive editor of the *Poster*.

The Poster Puzzler:

Blowing Off Steam

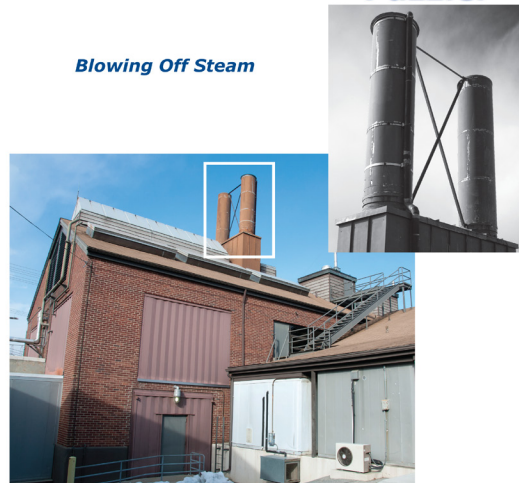
By Ashley DeVine, Staff Writer, and Rocky Follin, Facilities Maintenance and Engineering, Contributing Writer

The March 2011 Puzzler shows two heating, ventilating, and air conditioning (HVAC) exhaust stacks on the roof of Building 472. Originally built in 1952, Building 472 was a stimulant plant for Fort Detrick's Biological Warfare Program. In 1975, the building was completely remodeled and the HVAC exhaust stacks were installed for the Fermentation Production Facility, now known as the Biopharmaceutical Development Program (BDP). General building exhaust air is expelled from these stacks, which are 36 inches in diameter. BDP still occupies Building 472 today. ■



Puzzler

Blowing Off Steam



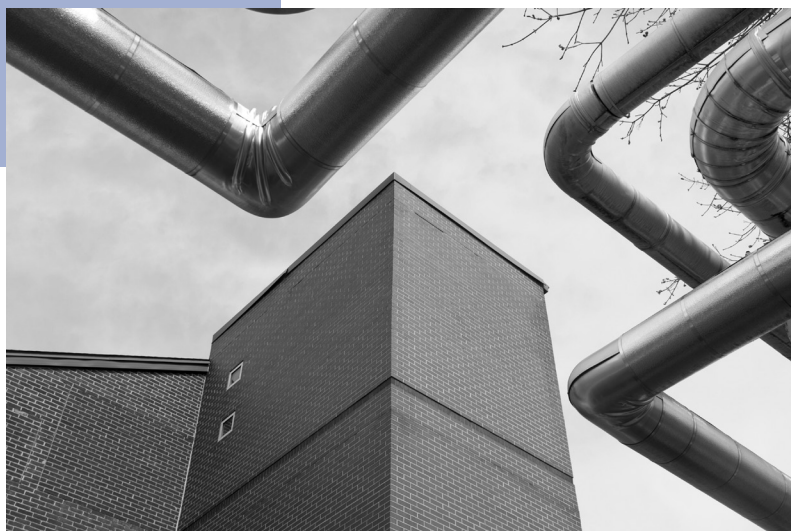
Poster Puzzler

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. 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, July 22, 2011**, and the winner will be drawn from all correct answers received by that date.

Good luck and good hunting! ■



Have Poster, Will Travel

Poster Travels to South Africa

By Maritta Perry Grau, Staff Writer

Dr. Robin Dewar and Helene Highbarger, both with the Virus Isolation and Serology Laboratory, Clinical Services Program, traveled with the *Poster* last year to South Africa.

They attended the Phidisa Project's annual meeting in Pretoria, where they participated in "strategic planning...to restate the vision and scope of the project. Major General Radebe [pictured with Robin, far left], the current head of the project and the original champion of our collaboration eight years ago...added a great deal of energy and inspiration to the proceedings. Robin and I brainstormed with people we don't ordinarily work with, and engaged in very lively discussion. It was productive and fun," Highbarger said. (See <http://www.phidisa.org/about.html> for more information.)



The *Poster*, NCI-Frederick's newsletter, is making 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. ■

Advanced Technology Research Facility

ATRF Construction Continues to Make Progress

By Hoyt Matthai, ATRF, Guest Writer

The interior construction continues to bring shape to the laboratory wings of the Advanced Technology Research Facility (ATRF). Steel studs are in place on most of the floors, and drywall is being installed.

The final design of the administration wing and atrium, which includes details on specific spaces such as hallways, offices, an auditorium, and conference rooms, is scheduled to begin in early May. Completion of the final design is anticipated in the summer, with the fit-out of these areas to begin in the fall.

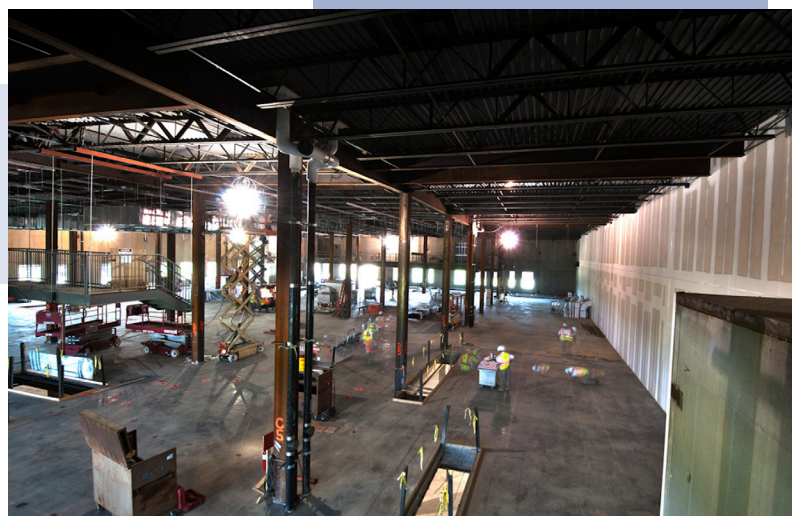
BDP Personnel to Work on Site

The Biopharmaceutical Development Program (BDP) is scheduled to place a trailer on site in June, to house the cGMP validation contractor, cGMP Validation, LLC. In addition to about 25 cGMP Validation staff, two or three BDP personnel will begin working at the site in June to oversee the validation of the facility.

Required by the U.S. Food and Drug Administration for all cGMP facilities, validation is documented evidence demonstrating that all facilities, equipment, systems, and processes used to produce materials for human administration are designed for their intended purpose and perform to their expected specifications.

Validation activities will continue through February 2013 for placing all BDP cGMP laboratories, utilities, and equipment into use at the ATRF.

Occupancy of the ATRF is expected to begin in the summer of 2012. ■



Successfully Moving from Science to Business...and SAIC

By Nancy Parrish, Staff Writer

Stefanie Bednarczyk started out in a science-oriented career and moved into the business world on a path that eventually led her to SAIC Corporate.

A 1997–1998 Werner H. Kirsten student intern, Bednarczyk worked in the Laboratory of Experimental Immunology (LEI) during her senior year at Governor Thomas Johnson High School. Following her internship, she moved to the U.S. Army Medical Research Institute of Infectious Diseases to work as a laboratory technician in the Toxinology Division, where she stayed for three years while studying biology at Hood College.

Moved to the Business World “Accidentally”

After graduating from college, Bednarczyk began working professionally as a regulatory affairs medical writer for Computer Sciences Corporation (CSC), where she remained for seven years. “I moved from a more science-based career path to the business world quite accidentally,” she said. At CSC, her talent for writing was recognized, and, she said, “I was moved into a department called Business Development, which I knew nothing about. I quickly learned how to dissect a Request for Proposal, respond to it the way the federal government mandates, and—here’s the key part—win!”

Now a life sciences account executive for SAIC, Bednarczyk acquires new business for the Health, Energy and Civil Solutions Group, the corporate group to which SAIC-Frederick also belongs. She attributes her success at SAIC to the appropriate fit between her “intensely competitive” personality and the challenges of new business acquisition.

She also enjoys the scientific environment. “I get to stay engaged in enough science/health-oriented topics so I don’t get too bored, but the fast and furious nature of very large proposals and sales/marketing gives me a charge I hadn’t found in anything else.”

Mentor Support, Caring Co-workers Stand Out in Memory

While she has “many fond memories” of her days at NCI-Frederick, she said, what stands out was the support she received from her mentor, Howard Young, Ph.D. When Young helped her and other students develop posters for a presentation at NIH and then accompanied them to Bethesda, she was impressed with “how much he cared about us.”

She also recalls the friendly and caring atmosphere in the lab, which she describes as being “like a little family.” She said she realized then that whatever she did professionally, “it had to be something I really enjoyed, with people I really enjoyed, who felt like family.”

Scientific Foundation Has Proved Invaluable

By her own admission, Bednarczyk has not followed “the typical career path” of other student interns who have remained in science or medicine, but she is grateful for her experience at NCI-Frederick. “There are a number of foundational things that I learned in the lab that I still keep in my ‘toolkit of knowledge,’” she said. Having had hands-on scientific experience enables her to “have intelligent conversations with very technically savvy individuals... at all levels in the government and in corporate/academic/nonprofit entities.” The scientific base of her education, which, she believes began at NCI-Frederick, “really has allowed me to soar in my field.”



Former student intern Stefanie Bednarczyk is a life sciences account executive at SAIC. While she did not follow the career path taken by many other interns, she says she continues to draw on her experience at NCI-Frederick. *Courtesy photo.*

“Don’t Waste One Moment”

Bednarczyk advises current interns to have the right attitude: “You are not JUST a student—what you do really does have a real impact on science.” Further, students should recognize the internship as a once-in-a-lifetime opportunity to learn and grow. “Don’t waste one moment of your experience... You will never again be in an environment where it is ok to be wrong—to have no idea what you are doing—and that it will be fully accepted and people will want to help you.”

Equally important is maintaining contact with your co-workers. “They are the people you should look to when you are trying to figure out what it is you want to do in this crazy world.” ■

Outreach and Special Programs

Upcoming Summer Student Activities

By Ashley DeVine, Staff Writer

Student Orientation

June 23, 9:30–11:30 a.m., Building 549 Auditorium

Boot Camp

Attention, all summer students: Are you beginning your first research experience at NCI or do you need a refresher course on basic science skills? If so, consider attending the Office of Intramural Training and Education's (OITE's) Summer Student Boot Camp. The camp will be held at NCI-Frederick on **June 27**, 9 a.m.–4 p.m., in the Building 426 Conference Room.

The boot camp is open to all students and provides an all-day training session with workshops on research culture, the scientific method, and science communication. Keren Witkin, Ph.D., OITE, will teach the camp with help from NIH postdocs. For a complete schedule, go to https://www.training.nih.gov/boot_camp. If you are interested in attending the boot camp, register in advance at https://www.training.nih.gov/events/view/_2/480.

Student Jeopardy

For additional details, see "Summer Events at the Scientific Library," page 26.

July 14, 9 a.m.–4 p.m., Building 549 Auditorium

Student Poster Day

July 27, 9 a.m.–3 p.m., Building 549 Lobby

Giants of Science: Notable Scientists through the Ages

For additional details, see "Summer Events at the Scientific Library," page 26.

Runs each Monday through **August 29**, 12–1 p.m., Building 549 Conference Room A:

June 6: Archimedes

June 13: Leonardo Da Vinci

June 20: Francis Bacon

June 27: Galileo Galilei

July 6: Isaac Newton

July 11: Charles Darwin

July 18: Alfred Nobel

July 25: Nikola Tesla

August 1: George Washington Carver

August 8: Marie Curie

August 15: Albert Einstein

August 22: James Watson and Frances Crick

August 29: John Nash

Student Seminar Series

For additional details, go to <http://ncifrederick.cancer.gov/campus/outreach/seminar/>.

Runs each Tuesday through August 2, 12–1 p.m., Building 549 Auditorium

June 14: Dr. Stacy Agar, National Institute of Allergy and Infectious Diseases, "Zen and the Art of Scientific Discovery"

June 21: Dr. Kim Klarmann, NCI-Frederick, "Potential Targets for Leukemia Treatment: The Id Family of Transcription Regulators"

June 28: Dr. Smita Bhonsale, U.S. Army Medical Research and Materiel Command, "Regenerating Hope"

July 5: Dr. Travis Warren, U.S. Army Medical Research Institute for Infectious Diseases, "Advances in Therapeutic Applications for Treatment of Lethal Virus Infections"

July 12: Dr. Mario Guerrero, Naval Medical Research Center, "Mobile Laboratory Technologies in Biological Defense"

July 19: Dr. Tim Widmer, U.S. Department of Agriculture Foreign Disease-Weed Science Research Unit, "Learning to Tame the 'Plant Destroyer' Pathogen"

July 26: Dr. Joel Schneider, NCI-Frederick, "Hydrogel Materials for Tissue Engineering and Drug Delivery"

August 2: Dr. Susan Mackem, NCI-Frederick, "From Thumb to Pinky: How to Make a Hand with the Correct Number of Digits in the Proper Order"

Student Mini Film Series

For additional details, see "Summer Events at the Scientific Library," page 26.

All movies are shown in the Building 549 Auditorium beginning at noon.

June 30: *Naturally Obsessed*; **July 7:** *Whiz Kids*; **July 21:** *AIDS Jaago* (Part 1); **July 28:** *AIDS Jaago* (Part 2); **August 4:** *The Way of All Flesh/Henrietta Lacks*

Take Your Child to Work Day Is July 20

Take Your Child to Work Day (TYCTWD) is Wednesday, **July 20**. Help make the day a success by sponsoring a program or Hub activity, or by volunteering on the day of the event. Registration for programs/Hub activities continues through June 3. If you need help planning an activity, e-mail the TYCTWD Planning Committee at kidsday@ncifcrf.gov or call 301-846-7338. Pre-registration for children runs June 20–July 6. Watch your e-mail for more information, or visit the web site to register: <http://kidsday.ncifcrf.gov/>.

New Summer Student App Available

A free NCI Summer Student App is now available for Apple and Android devices. The App features information about NCI and its divisions, such as the Center for Cancer Research and the Division of Cancer Epidemiology and Genetics; upcoming summer student events in Frederick, Rockville, and Bethesda; links to NIH and NCI-Frederick shuttle maps/schedules, visitor maps for the Bethesda and Frederick campuses, and information on the Washington Metro; and other recreational activities and places to go, such as the NIH and NCI-Frederick libraries and locations for lunch. In addition, a "Tools" section includes links to other free Apps that may be useful to students during their summer internships. To download the App from iTunes, go to <http://itunes.apple.com/us/app/nci-summer-internship-program/id431948152?mt=8>. To download the App for Android devices, go to https://market.android.com/details?id=com.bluepanestudio.nci_2011&feature=search_result. ■

Outreach and Special Programs



Farmers' Market Welcomes New Vendors

By Nancy Parrish, Staff Writer

After a successful winter season and productive Spring Market and Plant Sale in May, the NCI-Frederick Farmers' Market will welcome new vendors for the 2011 season. In addition to its regular vendors, who offer the bounty from their local farms, the market will offer pork and lamb, as well as a wonderful array of maple syrup products. Several new artisans will also be joining the market this summer.

The regular season Farmers' Market is held every Tuesday through October 25 in front of the Scientific Library/Conference Center and Discovery Café, Building 549, from 11:00 a.m. until 1:30 p.m.

For additional information, e-mail farmersmkt@mail.nih.gov. ■



Discovery Café

Discovery Café Officially "Re-opens" for Business

By Nancy Parrish, Staff Writer

The Discovery Café hosted its grand re-opening on April 18, complete with free coffee and doughnuts. Closed since September 2010, the café's opening was greeted with great anticipation by the NCI-Frederick community.

The new company, Regent Managements, Inc., took over the existing space and created a whole new menu. Think New York deli: chalk board menus with a wide array of choices, from breakfast platters to deli-style sandwiches and wraps. A large salad bar is also available every day, as well as a variety of hot entrees, including vegetarian selections.

"All the food is prepared fresh every day," said Charlie Ware, head chef.

Paul Miller, senior program analyst, Office of Scientific Operations, and member of selection committee, feels Regent Managements "has made the Discovery Café a great place to eat....The food is competitively priced, delicious, and the portions are more than generous....I hope the NCI-Frederick community turns out to support them."

For hours and more information on the Discovery Café, please visit the web site: <http://ncifrederick.cancer.gov/Staff/Cafe.aspx>. ■



Discovery Café re-opened on April 18. L to R: Regent Managements staff Jesse Song, Tommy Kolitsopoulos, Tommy Caporonis, Chef Ware, John Gang, and Taso Kolitsopoulos; selection committee members Paul Miller, NCI-Frederick, and Ellen Miller and Dennis Dougherty, SAIC-Frederick.

Addiction? EAP Can Help

By Selden Cooper, Employee Assistance Program, Contributing Writer

Addictions, whether to drugs or to activities, exact a staggering toll on individuals, relationships, families, organizations, communities, and society each year.

Almost any activity with the potential to tap into the brain's reward circuits can become "addictive," whether it's eating, exercising, shopping, using the Internet, sex, gambling, or even work and attainment of wealth and status.

What Do Addictive Behaviors Have in Common?

- Compulsive use of the substance, or engaging in the preferred activity.
- Losing control over the use of the substance or participation in the activity.
- Subordinating personal health, relationships, job, and other social roles to indulge in the drug-of-abuse or compulsive activity.
- Developing tolerance to a given drug, so that progressively higher doses are required to obtain the desired physiological effects.
- Suffering physiological withdrawal symptoms when consumption of the drug is abruptly reduced or terminated.
- Developing life-threatening pathological organ and system changes, such as cirrhosis of the liver; however, all organs and systems, from the brain to the heart, gastrointestinal and reproductive systems, are vulnerable.
- Reducing compulsive activities typically results in dysphoric (moods that engender unpleasant or uncomfortable feelings) states, such as generalized tension or restlessness, anxiety, agitation, negative emotional states, and preoccupation.
- Developing a profound sense of personal unworthiness and shame, which, paradoxically, often serves to reinforce the addiction, since it also

serves to temporarily alleviate those feelings.

Addictive disease is chronic and progressive (the damage is cumulative), and, in the case of chemical addictions, can be lethal, if the progression of the disease is not arrested.

Why Do We Continue Addictive Behaviors?

So, if addictive behaviors have so many detrimental effects, why do we indulge?

In one respect, the answer is simple: It makes one "feel good," even if temporarily (positive reinforcement).

The answer, however, is far more complex than that of "feeling good"; another effect of engaging in the addiction is often that of alleviating or attenuating a painful or dysphoric state of mind and body (negative reinforcement).

There are no more potent influences on behavior than positive and negative reinforcement. Many factors may play a role: genetic factors; psychological predispositions; the impact of overwhelming or chronic stress; and many social factors, such as our society's "chemophilia" and intolerance of pain, the influence of one's reference group, the debilitating impact of poverty, and other social pathologies.

One thing is certain: no one is immune.

What Is the Good News on Treating Addictive Behaviors?

The good news is that addictive disease, whether chemical or non-chemical, is treatable, particularly when caught relatively early. It is most certainly not representative of a moral or character defect, and people with addiction deserve the same consideration, compassion, and assistance that we would accord to any other disabling condition; the social stigma associated with the disease is one of the major factors that contributes to the maintenance of the problem, as it dissuades people from seeking the help that is available, and to which they are entitled.



Selden Cooper, LCSW-C, has more than 25 years of experience in employee assistance and has provided services to NCI-Frederick for ten years.

A wide range of effective treatments is available for addictions, ranging from individual and group psychotherapies, biochemical interventions, therapeutic communities, to twelve-step fellowships.

In recent years, research suggests that confrontation is not particularly helpful. Instead, more positive philosophies have been developed, some of which are aimed at those unwilling to embrace abstinence as a goal; others aim to prevent relapse, emphasizing mindfulness as an antidote to the automaticity that characterizes addictive behavior. Couples therapy and family therapy are also important approaches.

Where Can You Go for Help with Addictive Behaviors?

If you have questions about addictions or any other issues, contact me (Selden Cooper, LCAW-C, CEAP) at 301-846-1308; I am on site Tuesdays and Wednesdays (all day), and Friday mornings, Building 426. ■

Green Tips

Summer Green Tips

By Michele Gula Atha and Howard Young,
NCI Green Team, Guest Writers

Go Green and Save \$\$ at the Pump

With gas prices expected to reach \$5 per gallon this summer, here are a few ways to save fuel and money at the pump:

- Slow down. Not only could you get a costly speeding ticket, you are also wasting expensive fuel. Every 5 miles per hour over 60 that you drive is like paying an additional \$0.24 per gallon for gas (<http://www.fueleconomy.gov/feg/driveHabits.shtml>).
- Check your tire pressure to ensure that your tires are properly inflated; properly inflated tires mean better gas mileage.
- Use the lowest octane gas recommended for your car. Only 10 percent of the cars manufactured since 1982 require high-octane gas. (<http://www.keepomahabeautiful.com/newsletter/14-november/38-going-green>). In addition to being

more expensive, high-octane gas releases more toxic compounds.

- Empty any unnecessary heavy objects from your car. Extra weight requires more fuel.
- Use roof racks sparingly because they increase wind resistance and reduce gas mileage.
- If you are in the market for a new car, consider fuel-efficient models.
- Use public transportation when possible, especially if traveling within the Washington, D.C., metro region. Parking is free on weekends at metro stations.

Before You Leave for Vacation

- Turn up your thermostat if the air conditioning is on.
- Turn off your water.
- Unplug electronic devices and appliances.

Think Green while Traveling

- Consider traveling with family and friends. Not only will you save money and fuel by carpooling, you will also

create memories with family and friends that will last a lifetime.

- Take your own toiletries and leave the complimentary ones behind. The mini-bottles are extremely wasteful when it comes to packaging.
- Return brochures if possible. Reusing is even better than recycling.

Gardening

- Are the plants in your garden in need of thinning? If so, ask your neighbors or co-workers if they would like some free plants for their gardens. In addition to recycling, you will bring a smile to the faces of those who will enjoy the blossoms this year and in the future.
- Create a compost pile with scraps from fruits and vegetables.
- Water your garden with a watering can instead of a hose. You will build arm strength and significantly reduce water usage. ■

Campus Improvement Committee

CIC Volunteers Continue Campus Beautification Project

By Maritta Perry Grau, Staff Writer

This spring, the NCI-Frederick Campus Improvement Committee continued its annual flower-planting project to beautify our campus. Pictured are volunteers Cathy Hixson (on left), AIDS and Cancer Virus Program, and Guity Mohammadi, Cancer Inflammation Program, transferring the tender seedlings to garden packs for further nurturing in the FDA greenhouses. In late May, NCI-Frederick volunteer gardeners planted marigolds, zinnias, and geraniums across the campus.

So if a colorful spot of flowers outside one of our buildings catches your eye this summer, thank the gardeners inside that building. ■



NCI-Frederick Employee Diversity Team

Women of NCI-Frederick

By Ashley DeVine and Nancy Parrish,
Staff Writers

Last March, four women were named Women of NCI-Frederick as part of the Women's History Month display sponsored by the NCI-Frederick Diversity team. The women were selected from nominations submitted by the NCI-Frederick community.

The women selected were Karen Hite, research associate, Molecular Targets Screening Laboratory, SAIC-Frederick; Courtney Kennedy, financial systems analyst, Information

Systems Program, SAIC-Frederick; Siobhan Tierney, assistant program manager, Environment, Health, and Safety (EHS) Directorate, SAIC-Frederick; and Terry Van Dyke, Ph.D., director, Center for Advanced Preclinical Research (CAPR) and chief, Mouse Cancer Genetics Program (MGCP), Center for Cancer Research, NCI-Frederick.



Courtney Kennedy

How They're Making History

Karen Hite develops high-throughput molecular target screens to look for compounds that might be used as chemotherapeutic agents. She recently developed a screen to identify agents that could be used as inhibitors of autophagy, a process of cellular self-degradation. "I am particularly proud of setting up the autophagy screen," she said, "because it involved mastering a very complicated and difficult instrument, the BD Pathway, as well as setting up a complex system to analyze the data."

Courtney Kennedy has worked at NCI-Frederick for eight years. She provides support and training for various software programs used at NCI-Frederick. One of her recent projects was to develop

a SharePoint site for NCI-Frederick's Emergency Preparedness Plan (EPP). "The site is continuing to develop and will hopefully prove successful should a true EPP situation arise," Kennedy said.

As assistant program manager in EHS, Siobhan Tierney assists with reports, budgets, and the "odd projects that don't necessarily 'fit' into one of the EHS groups." In response to the 2004 Homeland Security Presidential Directive 12 (HSPD-12), all government agencies—including NIH—were required to issue a personal identity verification (PIV) card to anyone needing access to federal buildings and information systems. A member of the NCI-Frederick HSPD-12 team, Tierney was the point of contact for the NIH HSPD-12 team. Thanks to her efforts and persistence, NCI-Frederick employees were able to obtain their PIV cards by the June

2010 deadline without having to travel to Bethesda.

Terry Van Dyke, Ph.D., came to NCI-Frederick in September 2007 to lead MCGP and establish CAPR. A leader in the study and use of genetically engineered mice (GEM) as a model of human disease, she studied one of the first transgenic cancer models during her postdoctoral research. Her work as co-chair of an advisory committee to the director of NCI in the late 1990s led to the establishment of the Mouse Models of Human Cancers Consortium (MMHCC). She served as co-chair of MMHCC for more than two years.

What Keeps Them Going

Challenges are precisely what keep Hite motivated. "I have enjoyed the challenges of the various projects that I have been involved with through the years, as well as the people I have worked with in our lab and the collaborators associated with our lab," she says.



Terry Van Dyke, Ph.D.

Kennedy is motivated by knowing she works for an organization that is dedicated to discovering the causes of cancer, AIDS, and other diseases, and

improving the lives of those living with these diseases. "What keeps me coming to NCI-Frederick is the opportunity to work with and learn from such a diverse group of individuals/professionals and contribute in any way possible, no matter how small, to the goal of NCI-Frederick," she said.

Tierney appreciates the "wonderful opportunities" she has had during her 26 years at NCI-Frederick. She began as a technician in the In Vitro Cell Line Screening Laboratory, and, after completing her M.B.A., she became a manager for a number of buildings. Missing life at the bench, she transferred into the Laboratory of Molecular Retrovirology, and



Karen Hite

then took advantage of a "unique and satisfying opportunity" to combine all of her previous experience into her current

NCI-Frederick Employee Diversity Team

position in EHS. What keeps her coming to work every day are “the people and pride of being associated with NCI.”

Van Dyke is impressed with the interaction between SAIC-Frederick and NCI-Frederick, and how this interaction facilitates the rapid development of major government initiatives. “NCI is uniquely poised to develop effective preclinical strategies for the improvement of cancer therapies and diagnostics,” she said. “The wide varieties of scientific technologies available here make these initiatives possible,” she said.

How They Spend Their Spare Time

For the past 12 years, Hite has volunteered with the Frederick County chapter of the American Red Cross. In this role, she responds to many local and national disasters and is inspired by “the amazing people that I have been in contact with.” She has also honed her ability to “think outside the box to solve problems,” a skill she says she applies to her work in the lab. She also enjoys

spending time with her husband and their eight-year-old daughter, and has recently taken up triathlon competition.

Much of Kennedy’s free time is spent volunteering for organizations that care for dogs and refereeing high school volleyball. On weekends, you might find her volunteering at a local adoption event for a rescue organization in Maryland or transporting rescue dogs to multiple states for various rescue organizations. She also fosters dogs throughout the year and takes one of her dogs to a nursing home every week as part of the Wags for Hope program.

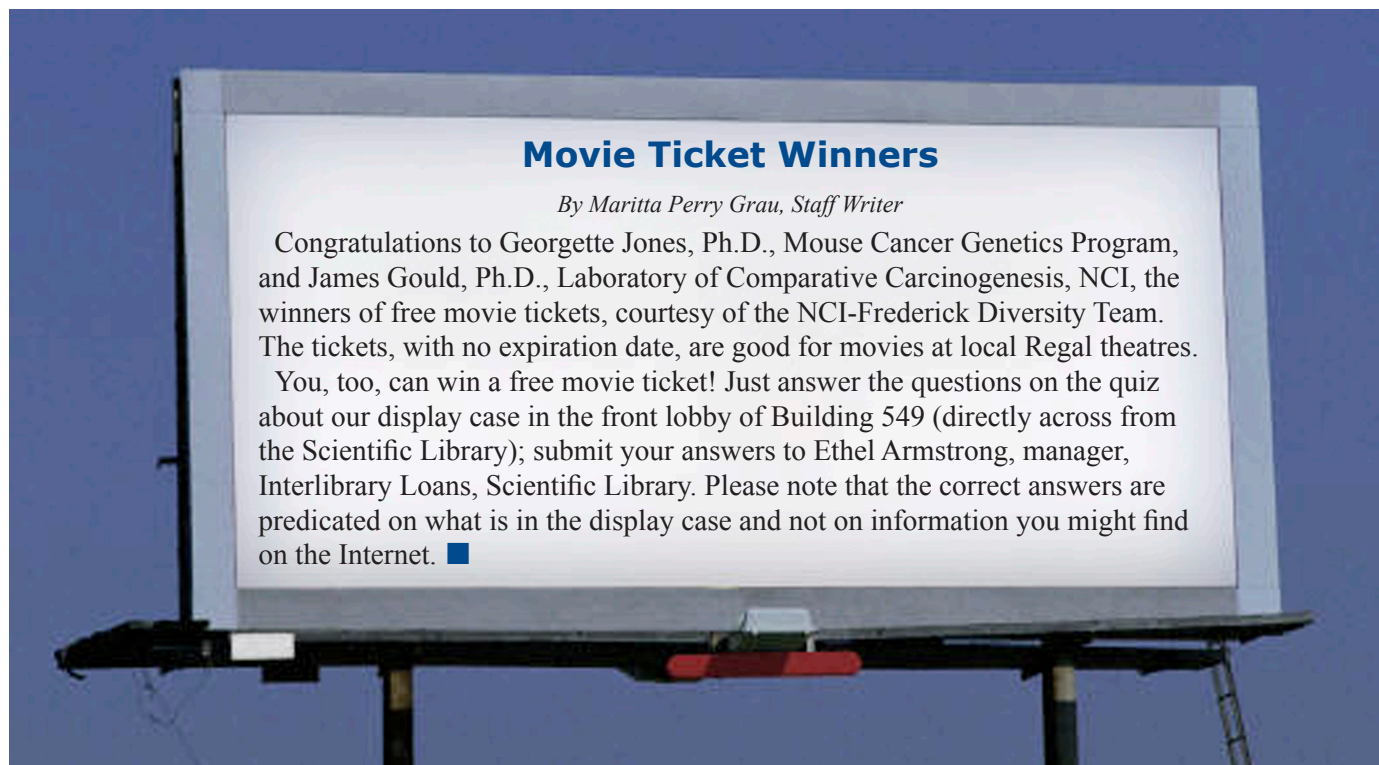
Tierney is also a dog lover, and is especially partial to Dalmatians and Greyhounds. At the moment she has

one of each, and enjoys taking them to a friend’s farm, where they can run off leash. She also loves to play tennis and practices yoga, although, she says, “not often enough.”

When she’s not working, Van Dyke relaxes by taking walks in the woods or other natural surroundings, playing her clarinet, and listening to music. “I consider most of the activities in which I am engaged as part of what is expected of me in my job as a scientist and leader,” she said. She has gone above and beyond her regular duties by contributing to programs such as the launch of the “Cell Genetics and Signaling” seminar program and postdoctoral training program. ■



Siobhan Tierney



Reporting Accidents and Incidents Is Important

By Tammie Ford, *Environment, Health, and Safety*,
Guest Writer

What could safety goggles have in common with traffic lights? How about earplugs with seat belts, or stair handrails with childproof caps?

“All were invented as a result of previous accident reports and investigations. Traffic lights were not invented until numerous car accident reports and investigations” suggested the need for such a device. Eye and ear protection was not “invented until many people reported suffering tragic eye injuries” and non-reversible hearing loss on the job, according to the article “Accident Reporting and Investigation” at <http://www.docstoc.com/docs/3835132/The-Importance-of-Accident-Reporting-and-Investigation-Question-What-do>.

“Think about all the safety equipment you use and safety procedures you follow every day”: Almost all safety equipment and safety procedures were created to eliminate accidents that have already happened. How many falls does it take to get a step stool for your office? Usually, it takes one serious enough to send someone to the emergency room, but this need not be the case. That is “why accident reporting and investigation [are] so important. The results of [the] investigations can [help] prevent similar accidents from occurring in the future” the web site article explained.

Know the Difference between Accidents and Incidents

Accidents are undesired circumstances that give rise to personal injury, ill health, damage to property, product, or environment, and result in company losses or increased liabilities. An incident

describes undesired circumstances and near misses with the potential to cause accidents. Remember to report incidents, even if the actual harm caused was trivial. Reporting these incidents may eliminate a major accident in the future.

Take for example the lab technician who splashes a chemical in his eyes. He may choose not to report the incident. A few days later, he may experience delayed symptoms that could be covered under worker’s compensation, eliminating costly doctor bills for the technician. The chemical safety procedures might be incorrect. Did he wear his safety glasses, or were safety goggles needed? Maybe a chemical fume hood was appropriate for this particular chemical. All these questions can be answered by reporting the incident and having an investigation performed by the Environmental Health and Safety (EHS) Office, Environment, Health, and Safety Directorate (EHS), and Occupational Health Services (OHS) to help eliminate such accidents in the future.

Know the Emergency Procedure for Accident Reporting

If you experience an accident or incident while at work, the first step is to inform your immediate supervisor. You should go to, or call, OHS or EHS to report the accident/incident, no matter how minor.

OHS has a certified nurse practitioner on call 24/7 and provides first aid when necessary. OHS personnel provide multiple services, from suturing to ordering an x-ray or assisting with referral to a specialist. OHS is an advocate for the employee, and the group’s goal is to restore a healthy worker to the workplace.

Secondly, involve your supervisor. He or she will need to complete the “EHS Supervisor Accident Investigation” form

that EHS will send when the accident is reported. Your supervisor may also want to re-address safety issues with workers and consider whether meaningful and needed protocol changes should be made.

EHS and OHS work together to investigate, trend accident data, and based on those reported accidents and the data accumulated, put safety procedures into place to help eliminate potential accidents. We must know what requires fixing before we can take action to fix it. In the long run, this saves NCI-Frederick money, and it keeps NCI-Frederick workers safe.

No Matter How Trivial, Report it!

“People tend to overlook what is probably the only advantage of a workplace accident: the opportunity to correct an unsafe act or to remove a hazard, and to impress upon everyone the results of unsafe work habits and conditions,” the web site article noted.

“If you ever think your contribution to accident reporting and investigation is not important,” think again. What would your work environment be like if no one had ever reported accidents in the past? The mere act of working would be an accident waiting to happen. ■



New Faces at NCI-Frederick

Eighty-three people joined our facility in January, February, and March 2011.

The National Cancer Institute welcomes...

Kirill Afonin ■ Joo-Myung Ahn ■ Cherie Butts ■ Amaya Castro-Ruiz ■ Heejun Cho ■ Adam Day ■ Jennifer Delawder ■ Xia Ding ■ Jessica Henry ■ Ken Ishikawa ■ Taisuke Izumi ■ Christine Kantner ■ Tanuja Kashyap ■ Lyuba Khavrutskii ■ Seokho Kim ■ Suryun Kim ■ Min-Hyung Lee ■ Sook Lee ■ Jing Lin ■ Mingyong Liu ■ Yu Liu ■ Brian Madgey ■ Alok Mishra ■ Beatriz Mothe Pujadas ■ Christopher Nelson ■ Joan Pontius ■ Xiuping Qian ■ Susanne Selk ■ Meena Sharma ■ Zhifa Shen ■ Cheryl Shipe ■ Shangjin Sun ■ James Tricoli ■ Yuko Tsutsui ■ Christopher Westlake ■ Weishi Yu

SAIC-Frederick welcomes...

Yohannes Abebe ■ Anahita Agharahami ■ Gregory Appleby ■ Meenakshi Balakrishnan ■ Geoffrey Barger ■ Christopher Bennett ■ Xiaohong Chen ■ Chasidi Davis ■ Messhemo Davis ■ Thomas Forbes ■ Natasha Freeman ■ Keri Fuller ■ Keisha Hines-Harris ■ Nicole Holland ■ Paul Horning ■ Soumya Jaganathan ■ Marcel Johnson ■ Stacy Kopka ■ Michael Kruis ■ Zhengwu Lu ■ Paula Master ■ Paul McGregor III ■ David Mott ■ Tom Oduor ■ Nimit Patel ■ Lauren Pauls ■ Venkata-Satya Prerepa ■ Dylan Riffle ■ Romin Roshan ■ Alfred Sackey-Mensah ■ Heather Sewell ■ Wen Shao ■ Jeffery Shives ■ Brian Smith ■ Shawn Spencer ■ Eric Stahlberg ■ Brian Staiger ■ Jianjun Wang ■ Chad Warren ■ Jeremy Wilhide ■ Patrick Woods ■ Sharon Ying ■ Angela Zimmerman

Data Management Services welcomes...

Stephanie Baker ■ Emily Bivona ■ Nancy Brandt ■ Robert Dacey ■

Data Management Services, Inc.

Helpdesk Assists with a Variety of Problems

By Jim Racheff, Data Management Services, Guest Writer

Computer users at NCI-Frederick may contact the NCI-Frederick Computer Helpdesk with information technology (IT)-related requests for service and support, or with any computer-related questions, including:

- General desktop computer support
- Account passwords and e-mail assistance
- Support for systems that are developed and supported by Computer and Statistical Services (C&SS), as well as NCI-Frederick web sites.
- Suspected virus or IT security problems
- Purchase of IT equipment
- Access to site-licensed software
- Use of a loaner computer

The Helpdesk is staffed from 8 a.m. to 5 p.m., Monday through Friday, excluding NCI-Frederick holidays. Users can expect most desktop support requests to be addressed within five working days; “urgent” requests are handled within one working day.

Users can contact the Helpdesk via:

- Web: <http://css.ncifcrf.gov/helpdesk>
(Note: this is the preferred method for requesting support.)
- Phone: 301-846-5115
- E-mail: fredhelpdesk@nih.gov

NIH Active Directory Consolidation Continues

C&SS is helping NCI-Frederick laboratories and program areas consolidate computer and user accounts into the NIH Active Directory (AD). Consolidating our local security systems will allow us to more easily share information with each other and with other collaborators at NIH, as well as to help NCI-Frederick comply with laws, regulations, and policies related to IT security. Several groups have already been migrated, and the effort is expected to continue through June 2011.

Halling Earns ITIL Version 3 Expert Rating, Agile Master Certification

Stephanie Halling, director, Client Services, recently earned an “expert” rating in Information Technology Infrastructure Library (ITIL) Version 3 (V3). ITIL is a set of concepts

and practices for IT services management, development, and operations. The ITIL framework provides detailed descriptions of a number of important IT practices and provides comprehensive checklists, tasks, and procedures that any IT organization can tailor to its needs.

The ITIL expert level of qualification is awarded to those individuals who demonstrate a superior level of knowledge of ITIL V3 in its entirety.

Halling also earned a “master” level of certification in the Scrum methodology of agile project management in April. Agile project management is an iterative method of incrementally delivering projects in a highly flexible and interactive manner.

Halling’s ITIL and agile qualifications are complimented by a master’s degree in business administration and Project Management Institute (PMI) project management training.

Questions?

Any questions about these initiatives or any IT-related matter may be directed to the Helpdesk at 301-846-5115 or fredhelpdesk@nih.gov. ■

Summer Events at the Scientific Library

By Robin Meckley, Scientific Library,
Contributing Editor

The Scientific Library staff has planned a variety of activities for the summer. Complete information on all events is available from the library's web site at <http://www-library.ncifcrf.gov>.

Mondays: Giants of Science: Notable Scientists through the Ages

For specific dates, see page 18.

Our Summer Video Series presents weekly videos on notable scientists through the ages. Our chronological journey through scientific history began with Archimedes and Leonardo Da Vinci, and will continue with such notables as Galileo, Isaac Newton, Charles Darwin, and others. Our study moves into the 20th century with a focus on giants such as Nikola Tesla, Marie Curie, and Albert Einstein. We wrap up with James Watson and Francis Crick, a separate look at Rosalind Franklin, and a final session on John Nash. These 60-minute sessions are held on Mondays from 12 to 1 p.m.

Tuesdays: Farmers' Market

The library staff participates in the NCI-Frederick Farmers' Market, which is held each Tuesday in front Building 549. We will host a table on the last Tuesday of each month, beginning June 28. We offer free recipe cards and yummy treats, along with information about the library and all its services.

Wednesdays: Reading Diversions

Our Reading Diversions Book Club has changed its meeting day to Wednesdays for the summer only. On June 29, we will discuss two books about anatomy. The nonfiction selection is *The Making of Mr. Gray's Anatomy* by Ruth Richardson, and the fiction selection is *The Anatomy of Deception* by Lawrence Goldstone. On August 3, we will discuss the nonfiction book *Animal, Vegetable, Miracle: A Year of Food Life* by Barbara Kingsolver.

Thursdays: New! Mini Film Festival

For specific dates, see page 18.

We are hosting a new series this summer aimed primarily at students, but open to all. Our Mini Film Festival will be held on Thursdays at noon, for five

weeks beginning June 30. This program consists of a 60-minute video, followed by a brief discussion. Films include *Naturally Obsessed*, *Whiz Kids*, *AIDS Jaago*, Parts 1 and 2, and *The Way of All Flesh/Henrietta Lacks*.

July 14: Student Science Jeopardy Tournament

This is the fifth summer that the Scientific Library staff has offered this fun and educational event designed for students. Teams of two students each, from high school or undergraduate college, vie for prizes and bragging rights as they participate in the traditional Jeopardy "answer-and-question" format. The tournament kicks off at 9 a.m. Check the library's web site for information on how to register.

July 20: TYCTWD, Book Swap, and Therapy Dogs

The staff will present special programs for children at NCI-Frederick's annual Take Your Child to Work Day (TYCTWD) on July 20. We will also hold our annual Children's Book Swap, during which Reading Education Assistance Dogs (R.E.A.D.) therapy dogs will visit the library to interact with the children.

NCI-Frederick READ Celebrities Announced

Posters of each of the NCI-Frederick READ celebrities were unveiled at a ceremony at the Scientific Library on April 12, during National Library Week. Greg Alvord, Data Management Services, Lisa Devore, Charles River Frederick, Paul Stokely, SAIC-Frederick, and Yili Yang, NCI-Frederick, were introduced as the 2011 READ honorees. According to Sue Wilson, principal manager, Wilson Information Services Corporation, the READ celebrities program was developed in 1985 by the American Library Association to promote reading by creating posters featuring celebrities with their favorite books.

Alvord selected *Lila*, by Robert Pirsig, as his favorite book; Stokely chose *The System of the World*, by Neil Stephenson; Yang chose *Principles of Molecular Medicine*, Marschall S. Runge and Cam Patterson, editors; and DeVore chose *The Help*, by Kathryn Stockett. Their posters will be added to the permanent display at the library. ■



NCI-Frederick READ posters unveiled. Left to right: Debbie McCalpin and Sue Wilson, library staff; Paul Stokely, Greg Alvord, READ celebrities; Susie Culler, Ethel Armstrong, and Elena Zdanova, library staff.

On Effective Communication

Who Are These Guys?

By Ken Michaels, *Visual Communications*,
Staff Writer

Have you ever been invited to a meeting, and, shortly after the moderator got into the agenda, found yourself looking around the room and wondering who all the people in the room are? Unfortunately, it's happened to me lots of times. And in these circumstances, not knowing who the participants are and what their roles are can pose a serious obstacle to coming to mutual understanding about whatever may be under discussion.

It seems to me that whenever people are gathered together from different parts of an organization to work on a project together, the very first item on the agenda ought to be introductions. And there's a good reason why.

In his book, *The Checklist Manifesto* (New York, Metropolitan Books, 2009), author-surgeon Dr. Atul Gawande explains that operating room teams are sometimes assembled hastily, and individuals come from a variety of departments and specialties. The surgeon often doesn't know who the

anesthesiologist on the case is, or the circulating nurse, and certainly not the junior house staff who might be observing or even assisting. Or so it was. In recent years, this has changed.



He relates that the pre-surgery checklist in current use at Johns Hopkins spells out explicitly that before starting an operation with a new team, everyone introduces themselves. “I’m Atul Gawande, the attending surgeon’ ‘I’m Jay Powers, the circulating nurse’ ‘I’m Zhi Xiong, the anesthesiologist’ – that sort of thing” (p. 107).

Gawande (pp. 107–109) acknowledges that it felt pretty hokey when they first began doing it, and then he learned that psychology studies in various fields had led to this practice. The studies showed that people who don't know each other's

names don't work together nearly as well as those who do. Evaluating the effect of the checklist by post-surgery interviews, Hopkins found that, after three months of use, members of the surgical team who reported that they “functioned as a well-coordinated team” rose from 68 percent to 92 percent!

Pre-surgery checklists now in use in virtually every operating room in the United States continue to prove that when a surgical procedure begins with simple introductions, teamwork is rated superior, morale is improved, and people feel more engaged. Gawande reports that, at the Kaiser hospitals in Southern California, employee satisfaction rose 19 percent, and the rate of turnover among operating room nurses dropped from 23 percent to a mere 7 percent (p. 109).

Knowing the names of the people we're working with is more than a courtesy; it actually improves our performance and the quality of our output. Please, meeting organizers and conveners, put “Introductions” at the top of the agenda for your meeting. Be sure that everyone present knows who everyone else is. You'll get better results. ■

Occupational Health Services

Walking to Spring Research Festival Earns Rewards

By Will Sheffield, *Occupational Health Services*, Guest Writer

The NCI-Frederick and Fort Detrick Spring Research Festival on April 27 and 28 presented a good opportunity to go green and get fit. Occupational Health Services (OHS) set up a walking station at Porter Street and Ditto Avenue with giveaway items as well as raffle tickets for more substantial prizes. The idea was to encourage people to take the environmentally friendly alternative to driving or riding the shuttle bus to the festival, located about a mile from NCI-Frederick, adjacent to Building 1520.

In the five hours that the walking station was open on the first day, 210 people stopped to pick up a small gift and enter the raffle. Prizes included a HydraCoach intelligent water bottle, fitness ball, yoga mat, soft insulated cooler, and duffel bag.

Winning names were drawn from all those submitted on the first day; the station was not open on the second day because of the extreme weather conditions.

Winners included: Ashley Burg • Robin Dewar • Jean Eyler • Joe Graybill • Russ

Hanson • Helene Highbarger • Brad Hollinger • Keifford Jackson • Anne Kamata • Marilyn Lyles • Brian Madgey • Mike Malasky • Heather Marshall • Uma Mudunuri • G. Pickington • Jim Sawitzke • Jessica Walrath • Andy Warner • David Wells • Sarah Whitfield.

Because of the large turnout and the enthusiasm of the participants, OHS plans to set up a walking station again next year. ■

Upcoming Events and Dates to Note

Farmers' Market

Every Tuesday through October 25
11 a.m.–1:30 p.m., in front of Building 549

July 4

Independence Day: NCI-Frederick closed

July 20

Take Your Child to Work Day

July 22

Poster Puzzler Entries Due

July 27

Student Poster Day

September 5

Labor 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

Data Management Services
css.ncifcrf.gov/services

National Cancer Institute at Frederick
www.training.nih.gov

SAIC-Frederick, Inc.
<http://www.saic-frederick.com/>

Wilson Information Services Corporation
www-library.ncifcrf.gov

NCI-Frederick Programs

NCI-Frederick/Ft. Detrick Fitness Challenge 2011
saic.ncifcrf.gov/fitnesschallenge/

NCI-Frederick Suggestion Committees
ncifrederick.cancer.gov/campus/committees/

NCI-Frederick Advanced Technologies to Support Research
web.ncifcrf.gov/research-technologies/default.asp

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