



Poster

THE NATIONAL CANCER INSTITUTE AT FREDERICK

DECEMBER 2009

New Era of Research Begins with Advanced Technology Partnerships Initiative

By Hoyt Matthai, Guest Writer, Advanced Technology Research Facility, and Maritta Perry Grau, Staff Writer

“Building the right kind of NCI for the future.” That’s the title on the home page of NCI’s Advanced Technology Partnerships Initiative (ATPI). And by the end of 2011, many NCI-Frederick laboratories and offices may find new homes in the Advanced Technology Research Facility (ATRF), an outgrowth of the ATPI, at the 62-acre Riverside Research Park, Frederick.

NCI’s web site, <http://www.ncifcrf.gov/atpi>, describes the ATPI as a way of “taking a proactive approach to accelerate progress against cancer, not just by funding and conducting research, but also by establishing the platforms—in this case, state-of-the-art technology and drug development platforms—to turn that research into effective interventions as quickly and efficiently as possible.”

In its 2010 annual plan and budget proposal (see URL above), NCI stated that the ATRF’s groundbreaking began “a new era of expanded drug and technology development via public, private, and academic partnerships. The research park represents an opportunity to co-locate private sector research and development programs, biotechnology partners, and academic



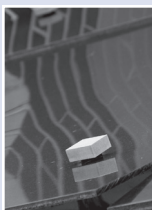
Artist's rendering of the new Advanced Technology Research Facility, courtesy of the Matan Companies.

collaborators on a research campus dedicated to reducing the cancer burden.”

FFRDC Designation Will Aid Collaborations

The proposal explained that because “NCI-Frederick is one of just 38 Federally Funded Research and Development Centers, and the only FFRDC devoted solely to biomedical research... the ATPI will expand collaborations with a variety of private companies and institutes to develop new agents, new diagnostics, and new ways of monitoring response to therapy—and then carry

continued on page 2



*What is it?
Where is it?
Story on page 17.*

IN THIS ISSUE

3 American Recovery and Reinvestment Act **4** Science Today **5** Platinum Publications **8** The Challenges of Mentoring **10** Postdoctoral Appreciation **11** Student Interns **12** Technology Transfer Center **13** Occupational Health Services **14** Poster People Profile **15** Write When You Get Work **16** Poster Puzzler **17** Have Poster, Will Travel **18** NCI-Frederick Employee Diversity Team **20** Administrative Resource Center **21** Outreach and Special Programs **22** Keeping Fit **22** Feeling Fit **23** Thinking Green **24** Play and Learning Station **25** Halloween **26** New Faces at NCI-Frederick **27** SAIC-Frederick, Inc. **28** Wilson Information Services Corporation **30** In Memoriam: David Derse **31** On Effective Communication **32** Employment Opportunities, NCI-Frederick Programs

Advanced Technology Partnerships Initiative

continued from page 1

them forward to first-in-human studies.”

The FFRDC designation allows NCI-Frederick to be operated by a private contractor, which is able to more rapidly deploy resources than a purely governmental entity.

ATRF Will Consolidate Staff from 33 Buildings

The Matan Corporation began construction in September on the facility. When completed, the ATRF “will occupy 330,000 square feet and house an estimated 350 NCI and SAIC-Frederick scientists, consolidating advanced technology programs” currently spread among 33 aged buildings, according to NCI Director John E. Niederhuber, M.D.

“We are not simply leasing modern workspaces; the ATRF will be at the core of an effort to bring together public, private, and academic partners to more rapidly deliver new, safe, and effective therapies to cancer and AIDS patients,” Dr. Niederhuber said in a recent D-Brief.

SAIC-Frederick teams have worked with NCI to develop concepts for the research park and ATRF as part of the NCI’s ATPI. The teams at NCI-Frederick have already finalized laboratory placement and layout for each wing. Placement of casework and equipment is nearly ready, with a 95 percent design review expected in January.

Matan should complete the building shell and turn it over to NCI in June 2010. At that point, construction and finishing of interiors for the Biopharmaceutical Development Program wing will begin. Fit-out of the research wings will take place later in the summer.

As we go to press, the architect and engineering firm for designing the administration wing has not been chosen, although substantial completion of the administration wing is forecast for December 2010. All wings of the facility should be occupied by the fourth quarter of 2011.

Dr. Niederhuber noted that the impetus for this project began in 2007, when

NCI’s Translational Research Working Group recommended that NCI find a way to “coordinate core services essential for early translational research to reduce duplication and ensure that high-quality services are readily accessible to all projects and investigators.”

It’s rare to find, under one roof, all of the essential “technologies and expertise” needed to move a drug or treatment from the laboratory to the patient. NCI and SAIC-Frederick believe that the ATRF, with so many technologies and so much expertise located in one place, will enable NCI to more easily “provide the drug development help that extramural researchers so desperately need,” Dr. Niederhuber added.

ATRF Will Centralize Technology Development

Already, NCI-Frederick provides expertise in many areas of biomedical research, from genomic sequencing, proteomics, and imaging, to nanotechnology and advanced computing, to name just a few. NCI envisions the ATRF as a centralized venue for technology development, where scientists can constantly refine their research, reaching ever newer, cutting-edge levels. “These efforts will assist scientists in conducting experiments to develop a greater understanding of the molecular basis of cancer,” Dr. Niederhuber said.

How will the ATRF be used? New molecular profiling technologies will sequence DNA more quickly than is possible today. Advanced bioinformatics capabilities will continue to evolve to handle increasingly large amounts and more complex forms of data. Proteins will be studied as easily as we currently study nucleic acids.

There’s a reason, too, that this project is called the Advanced Technology Partnerships Initiative. NCI will assist and teach other institutions, and in particular, academic researchers, how to exploit the latest technological innovations. Programs at the new facility

will also enable studies that NCI research partners and collaborators might not otherwise have been able to accomplish on their own, without the access to the breadth and depth of technologies, expertise, and resources the ATRF can provide. This partnering approach also follows the Translational Research Working Group report’s recommendation to “develop enhanced approaches for negotiation of intellectual property agreements and agent access to promote collaborations among industry, academia, NCI, and foundations.”

ATRF Will Move Research Forward

Dr. Niederhuber also expects the ATRF to move research forward through new drug discovery, development, and production. He pointed out that the Government Accountability Office reported to Congress in November 2006 that the drug development industry’s productivity has declined because it has been unable to effectively utilize emerging technologies and to translate basic discoveries into new drugs.

Access to clinical-grade drugs and biologics manufactured to FDA’s cGMP standards is essential for first-in-human and proof-of-concept studies. NCI-Frederick has a longstanding history and unique competency in working closely with investigators to rapidly develop initial research findings into cGMP products. For example, since its inception in 1993, the Biopharmaceutical Development Program, one of the groups that will move to the new facility, has completed more than 100 projects, with 68 having advanced into clinical trials.

Finally, Dr. Niederhuber commented, “The mark of an important initiative is what it accomplishes. In this case, the work of NCI-Frederick and its tremendous array of technologies is long-proven. What our colleagues do next, in a modern new space, with enthusiastic partners all around, will be exciting to watch.” ■

American Recovery and Reinvestment Act

NCI-Frederick to Receive up to \$340 Million in ARRA Funds to Support Key Programs

By Ashley DeVine, Staff Writer

Plans are underway for SAIC-Frederick to administer nearly \$340 million of the \$1.26 billion in American Recovery and Reinvestment Act (ARRA) funds received by the National Cancer Institute (NCI). This funding will be used to support several key NCI programs, including: Therapeutically Applicable Research to Generate Effective Treatments (TARGET), The Cancer Human Biobank (caHUB), the cancer Biomedical Informatics Grid® (caBIG®) Cancer Knowledge Cloud, and an expansion of the NCI Community Cancer Centers Program (NCCCP).

The TARGET initiative will use The Cancer Genome Atlas (TCGA) model to identify genomic targets in pediatric cancer. Co-funded by NCI and the National Human Genome Research Institute, TCGA is a large-scale effort to

characterize the genomic changes that occur in cancer. Twenty million dollars in ARRA funding will be administered under the SAIC-Frederick contract to expand TARGET's current focus on acute lymphoblastic leukemia and neuroblastoma to five additional pediatric cancers.

caHUB, a national biorepository of human tissue, blood, and other biological samples, received \$60 million in ARRA funding. "The ARRA funding is intended to allow caHUB to establish a solid foundation in the initial two years and a basis for growth and continued development," according to <http://www.recovery.gov>. caHUB was initiated in early 2009.

Under a planned \$103 million ARRA-funded project, the research infrastructure of caBIG® will be extended to support

a twenty-first century translational medicine paradigm and standards-based, oncology-specific extensions to hospital physician practice. A second component of this project will encompass development of oncology-extended Electronic Health Records (caEHRs) to capture clinical observations from the NCCCP. These caEHRs will permit electronic identification of candidate participants for clinical research studies.

The NCCCP, a three-year pilot program with the mission of extending cancer care to more communities through a network of community hospitals, received \$80 million in ARRA funding. This funding will introduce new research programs in to the NCCCP's 16 existing cancer centers, and will increase the number of cancer centers.

The NCI Budgets and Contracts Office provided information for this article. Other sources include <http://www.cancer.gov/recoveryfunding> and <http://www.recovery.gov>. ■

AED Program Needs YOU

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

Volunteer to be a trained responder in the NCI-Frederick Automated External Defibrillator (AED) Program. The training for volunteer responders consists of a traditional three-and-a-half hour CPR course developed by the American Heart Association, along with instructions on how to use an AED. A few hours of training for you could mean a lifetime to a victim of sudden cardiac arrest.

Both morning and afternoon sessions are usually held in the Building 426 Conference Room. Class size has been increased to two instructors and 12 participants. To register for a class and become a volunteer responder, please contact the Environment, Health, and Safety Program at 301-846-1451.

Although December classes are over, you can register for the following 2010 sessions (later dates will be announced in each quarter's *Poster*):

Date	Times
January 11	8:00 a.m.; 1:00 p.m.
February 8	1:00 p.m.
February 10	8:00 a.m.
March 8	1:00 p.m.
March 11	8:00 a.m. ■



OSRA Application Widens Researchers' Access to Chemical Information

By Igor Filippov, Guest Writer, Chemical Biology Laboratory; and Dianna Conrad, Contributing Writer, Scientific Program Analyst

Today's computer technologies enable scientists to present, in their publications, massive amounts of molecular and chemical structural information. However, until now, researchers could not easily access this information in chemical literature, for machine data analysis.

Such older materials are now more accessible, thanks to Igor Filippov, Ph.D. (SAIC-Frederick, Inc.), in the Computer-aided Drug Design Group, part of the new Chemical Biology Laboratory (formerly the Laboratory of Medicinal Chemistry). Marc Nicklaus, Ph.D. heads the group.

Their new lab aligns with the (also newly formed) Molecular Discovery Program, Center for Cancer Research (CCR).

Dr. Filippov designed an optical structure recognition application (OSRA), based on advances in image processing. "OSRA is a utility which converts an image of chemical structure into a computer format (SDF, for example)," he explained.

"Open source" application means that the source code of the software is available for everybody to review, study, and modify. OSRA application reads documents in more than 90 graphical formats, including GIF, JPEG, PNG, TIFF, PDF, and PS, and automatically recognizes and extracts the graphical information representing chemical structures. This ability to extract information from older chemical literature can help researchers greatly expand the structural information available for research.

Chemical structure images have long been an important tool to convey structural information in the context of a printed document. There exists a vast "treasure trove" of chemical information

in the form of journal publications and patents, both in the U.S. and abroad. Unfortunately, most of this information predates computerized data-mining techniques and is not available for machine data analysis.

OSRA Needed to Convert Information for Machine Data Analysis

Until the development of OSRA, there has been no open source tool to convert these graphical images into computer-recognizable formats for molecules, such as SMILES or SDF.

available commercially, while ChemOCR and ChemReader are not available to the general public.

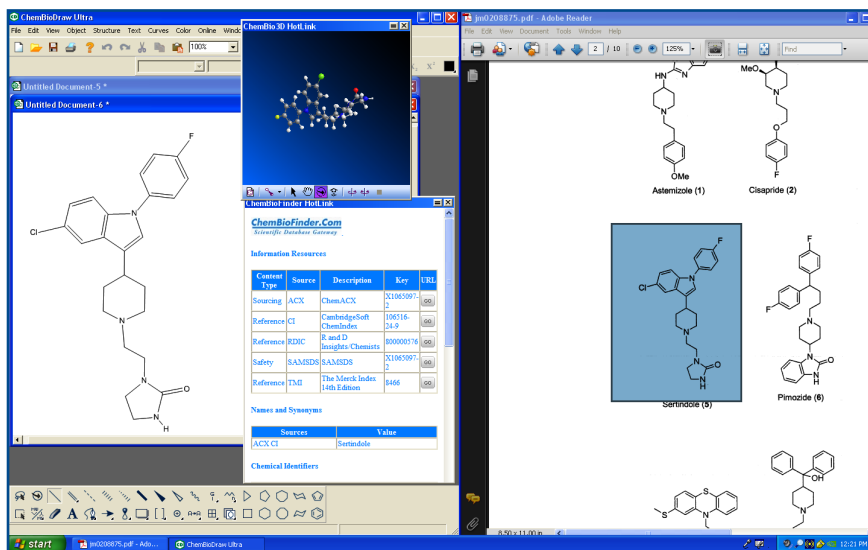
OSRA's Open Source Format Makes It Unique

OSRA is the only project that allows independent review of the code because of its open source nature. It is freely available to the community, and the benchmarks show favorable recognition rates, as compared to other programs.

Since OSRA is open source, its development is progressing very quickly; people from all over the globe give suggestions, modify the code, and develop their own OSRA-based applications. The European Patent Office, International Union of Crystallography, FDA, and others have expressed interest

in using OSRA.

Finally, OSRA is very easy to include as a plug-in into other software workflows, and today plug-ins exist to run OSRA from such molecular editors as ChemDraw, Symyx Draw, BKChem, and the cheminformatics toolkits, Pipeline Pilot and CACTVS. Installers exist for Microsoft Windows and Mac OS X, and the source code compiles on Linux or any other modern



The optical structure recognition application (OSRA) converts images of chemical structures into a computer format, as shown in this screen caption. Photo courtesy of Dr. Igor Filippov, Chemical Biology Laboratory.

A number of programs have been aimed at data-mining the patent and publication texts for chemical names, which, while they vary in their degree of success to process textual information, still do not capture chemical information encoded in structure images.

One of the first such programs, Kekule (no longer available), was developed at NCI. Three projects other than OSRA (CLiDE, ChemOCR, and ChemReader) are used to recognize chemical structure images. Of those three, only CLiDE is

Unix variant.

"We were surprised and pleased that so many leading researchers and groups have expressed interest in, or are actually using, OSRA, including large corporations and governmental regulatory agencies worldwide," Dr. Nicklaus commented.

For information, you can contact Dr. Filippov at 301-846-5961 or igorfil@helix.nih.gov, or access the software at: <http://cactus.nci.nih.gov/osra> <http://osra.sourceforge.net> ■

Findings Could Improve Success of Cancer Immunotherapy Treatments

By Ashley DeVine, Staff Writer

With her background in modulating the host's immune system to provide protection against disease, Kimberly Shafer-Weaver, Ph.D., Clinical Services Program, jumped at the opportunity to directly assess the immune system in the tumor microenvironment.

Working with a mouse model of prostate cancer, Dr. Shafer-Weaver and colleagues in the Laboratory of Molecular Immunoregulation, Center for Cancer Research, NCI-Frederick, discovered that tumor antigen-specific CD8⁺ T cells that infiltrate murine prostatic tumors are induced to become immune suppressive or "regulatory" T cells. This discovery was published as a "Cutting Edge" article in the *Journal of Immunology*.

"Our findings may help explain why some cancer patients have an initial response using immune-based therapy, yet over time, the treatment often fails," Dr. Shafer-Weaver said. By preventing or reversing tumor-induced immune suppression, immunotherapy as a cancer

treatment could have greater success in the future.

Now that the fate of the CD8⁺ T cells and their potential impact on tumor immunity are better understood, the next step is to characterize the mechanism by which these cells become suppressor cells and by which they mediate their suppressive function. Understanding how CD8⁺ T cells are induced to become suppressor cells will provide insight into approaches that can block this process and possibly sustain tumor immunity. Additionally, understanding how these cells adversely affect the potency of immunotherapies or host anti-tumor immune responses can help us to "tip the scale" in favor of tumor eradication.

Dr. Shafer-Weaver has worked at NCI-Frederick for eight years. She received her Ph.D. from the George Washington University, Institute of Biomedical Sciences, in the Department of Microbiology, Immunology, and Tropical Medicine. The article published in the *Journal of Immunology* was part



Kimberly Shafer-Weaver, Ph.D., Scientist I, Laboratory of Cell-Mediated Immunity, Clinical Services Program, SAIC-Frederick, Inc.

of her Ph.D. dissertation work, which she performed with Andy Hurwitz, Ph.D., head of the Tumor Immunity and Tolerance Section, Cancer and Inflammation Program, Laboratory of Molecular Immunoregulation. ■

Cutting edge: Tumor-specific CD8⁺ T cells infiltrating prostatic tumors are induced to become suppressor cells

Kimberly Shafer-Weaver, Michael Anderson, Katherine Stagliano, Anatoli Malyguine, Norman Greenberg, and Arthur Hurwitz
J Immunol 183(8):4848–4852, 2009

We previously reported that naive, tumor-specific CD8⁺ (TcR-I) T cells transferred into prostate tumor-bearing mice traffic to the prostate where they become tolerized. We now report that TcR-I cells suppress the proliferation of naive T cells. This suppression is mediated at least in part by secreted factors, and the suppressive activity can be blocked by Abs directed against TGF-β. We further report that TcR-I cells must infiltrate the prostate to acquire suppressive activity. Delivery

of tumor-specific CD4⁺ T cells prevents the conversion of TcR-I cells into suppressor cells. Taken together, our findings may have critical implications for sustaining T-cell responsiveness during immunotherapy, as the development of suppressor cells in the tumor microenvironment may eliminate the potency of T cells primed in the periphery or delivered during adoptive immunotherapy.

Cutting Edge

THE JOURNAL OF IMMUNOLOGY

Cutting Edge: Tumor-Specific CD8⁺ T Cells Infiltrating Prostatic Tumors Are Induced to Become Suppressor Cells¹

Kimberly A. Shafer-Weaver,^{1*} Michael J. Anderson,¹ Katherine Stagliano,¹ Anatoli Malyguine,¹ Norman M. Greenberg,¹ and Arthur A. Hurwitz¹

We previously reported that naive, tumor-specific CD8⁺ (TcR-I) T cells transferred into prostate tumor-bearing mice traffic to the prostate where they become tolerized. We now report that TcR-I cells suppress the proliferation of naive T cells. This suppression is mediated at least in part by secreted factors, and the suppressive activity can be blocked by Abs directed against TGF-β. We further report that TcR-I cells must infiltrate the prostate to acquire suppressive activity. Delivery of tumor-specific CD4⁺ T cells prevents the conversion of TcR-I cells into suppressor cells. Taken together, our findings may have critical implications for sustaining T-cell responsiveness during immunotherapy, as the development of suppressor cells in the tumor microenvironment may eliminate the potency of T cells primed in the periphery or delivered during adoptive immunotherapy. *The Journal of Immunology*, 2009, 183: 4848–4852.

The CD4⁺ regulatory T (Treg)³ cell plays a critical role in maintaining self-tolerance to auto-Ags and is involved in the pathogenesis of various clinical conditions, including chronic viral infections, autoimmune disease, and cancer. Treg cell frequency correlates negatively with cancer prognosis (1), and in murine models the removal of Treg cells or the blocking of their suppressive ability has been shown to enhance immunity to tumors, resulting in delayed tumor growth (1, 2) and improvement of antitumor immunity elicited by cancer vaccines (3, 4). As a result, suppressive T cells are thought to contribute to immune evasion by tumors.

Traditionally, studies of CD8⁺ T cells in immunotherapy have focused on their antitumor effector functions through the induction of CTL activity and the secretion of IFN-γ. However, there is substantial evidence that CD8⁺ T cells can develop suppressor activities similar to those of naturally occurring and induced CD4⁺ Treg cells (5–9). Stimulation in the presence of TGF-β can induce CD8⁺ T cells to express Foxp3, a transcription factor associated with programming Treg cell differentiation (10, 11). In addition, Suzuki and colleagues have described a naturally occurring population of CD8⁺ CD122⁺ T cells that exert suppressive function mediated by an IL-10-dependent mechanism (12).

The pathophysiological role of tumor-infiltrating CD8⁺ Treg cells remains less understood than that of CD4⁺ Treg cells. The presence of IL-10- and TGF-β-expressing CD8⁺ suppressor cells was detected in colorectal tumor-bearing mice (13), although the antigenic specificity of these cells was unidentified. Expansion of CD8⁺ suppressor cells has also been reported in cancer patients (14–16). However, it remains unclear whether these cells are recruited to the tumor as suppressor cells or whether they are tumor-specific. T cells that are converted into suppressor cells as a consequence of the tumor microenvironment.

In this report, we demonstrate that T cells persisting within murine prostate tumors suppressed the *in vitro* proliferation of both naive CD8⁺ and CD4⁺ T cells, which is mediated in part through TGF-β. The induction of suppressor activity was dependent on the CD8⁺ effector cells trafficking to the immunosuppressive tumor microenvironment. The ability of tumors to induce suppressive activity in tumor-specific CD8⁺ T cells may partially explain the consistent failure of adoptive immunotherapy, as these cells may inhibit the effectiveness of subsequent transfers of *ex vivo* activated, tumor-specific T cells.

¹Tumor Immunity and Tolerance Section, Laboratory of Molecular Immunoregulation, Cancer and Inflammation Program, National Cancer Institute, Frederick, Maryland 21702; ²Laboratory of Cell-Mediated Immunity, SAIC, Frederick, Inc., Frederick, Maryland 21702; and ³Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA 98109

Received for publication March 19, 2009; Accepted for publication August 20, 2009.

The cost of publication of this article was defrayed in part by the payment of page charges. This article must therefore be freely available to subscribers with a JCI/CI account. See www.jimmunol.org for details.

This work was supported by the Intramural Research Program of the National Cancer Institute, National Institutes of Health and the Department of Defense Prostate Cancer Research Program and has been funded in part with federal funds under contract NO1-CD-13980 to K.A.S.W. and A.A.H. K.A.S.W. was a postdoctoral scholar in the Intramural Research Program of the National Cancer Institute, Washington, DC, and this work is from a dissertation in partial fulfillment of the requirements for the Ph.D. degree.

*Address correspondence and reprint requests to Dr. Arthur A. Hurwitz, National Cancer Institute, National Institutes of Health, Frederick Cancer Research Center, Building 907, Room 209, Frederick, MD 21702. E-mail address: hurwitz@mail.nih.gov.

© Publication and the copyright in this article are hereby transferred to the American Association of Immunologists, Inc. 0022-1775/09/183(8):4848–4852/\$16.00/0. DOI: 10.1093/jimmunol/183.8.4848

The following 35 articles have been selected from 14 of the most prestigious science journals published during the past quarter.

Apoptosis

Klamt F, Zdanov S, Levine RL, Pariser A, Zhang YQ, Zhang BL, Yu LR, Veenstra TD, Shacter E. Oxidant-induced apoptosis is mediated by oxidation of the actin-regulatory protein cofilin. *Nat Cell Biol* 11(10):1241–U193, 2009.

Biostatistics

Jacobs KB, Yeager M, Wacholder S, Craig D, Kraft P, Hunter DJ, Paschal J, Manolio TA, Tucker M, Hoover RN, Thomas GD, Chanock SJ, Chatterjee N. A new statistic and its power to infer membership in a genome-wide association study using genotype frequencies. *Nat Genet* 41(11):1253–1257, 2009.

Yeager M, Chatterjee N, Ciampa J, Jacobs KB, Gonzalez-Bosquet J, Hayes RB, Kraft P, Wacholder S, Orr N, Berndt S, Yu K, Hutchinson A, Wang ZM, Amundadottir L, Feigelson HS, Thun MJ, Diver WR, Albanes D, Virtamo J, Weinstein S, Schumacher FR, Cancel-Tassin G, Cussenot O, Valeri A, Andriole GL, Crawford ED, Haiman CA, Henderson B, Kolonel L, Le Marchand L, Siddiq A, Riboli E, Key TJ, Kaaks R, Isaacs W, Isaacs S, Wiley KE, Gronberg H, Wiklund F, Stattin P, Xu JF, Zheng SL, Sun JL, Vatten LJ, Hveem K, Kumle M, Tucker M, Gerhard DS, Hoover RN, Fraumeni JF, Hunter DJ, Thomas G, Chanock SJ. Identification of a new prostate cancer susceptibility locus on chromosome 8q24. *Nat Genet* 41(10):1055–1057, 2009.

Cell, Tumor, and Stem Cell Biology

Chang SW, Biswas K, Martin BK, Stauffer S, Sharan SK. Expression of human BRCA1 variants in mouse ES cells allows functional analysis of BRCA1 mutations. *J Clin Invest* 119(10):3160–3171, 2009.

Lauchle JO, Kim D, Le DT, Akagi K, Crone M, Krisman K, Warner K, Bonifas JM, Li Q, Coakley KM, Diaz-Flores E, Gorman M, Przybranowski S, Tran M, Kogan SC, Roose JP, Copeland NG, Jenkins NA, Parada L, Wolff L, Sebolt-Leopold J, Shannon K. Response and resistance to MEK inhibition in leukaemias initiated by hyperactive Ras. *Nature* 461(7262):411–U110, 2009.

Liu YM, Borchert GL, Donald SP, Diwan BA, Anver M, Phang JM. Proline oxidase functions as a mitochondrial tumor sup-

pressor in human cancers. *Cancer Res* 69(16):6414–6422, 2009.

Matsumoto S, Yasui H, Batra S, Kinoshita Y, Bernardo M, Munasinghe JP, Utsumi H, Choudhuri R, Devasahayam N, Subramanian S, Mitchell JB, Krishna MC. Simultaneous imaging of tumor oxygenation and microvascular permeability using Overhauser enhanced MRI. *Proc Natl Acad Sci USA* 106(42):17898–17903, 2009.

Saydam O, Shen YP, Wurdinger T, Senol O, Boke E, James MF, Tannous BA, Stemmer-Rachamimov AO, Yi M, Stephens RM, Fraefel C, Gusella JF, Krichevsky AM, Breakefield XO. Down-regulated micro-RNA-200a in meningiomas promotes tumor growth by reducing E-cadherin and activating the Wnt/beta-catenin signaling pathway. *Mol Cell Biol* 29(21):5923–5940, 2009.

Cellular Immunology and Immune Regulation

Bergamaschi C, Jalah R, Kulkarni V, Rosati M, Zhang GM, Alicea C, Zolotukhin AS, Felber BK, Pavlakis GN. Secretion and biological activity of short signal peptide IL-15 is chaperoned by IL-15 receptor alpha in vivo. *J Immunol* 183(5):3064–3072, 2009.

Sikder H, Zhao Y, Balato A, Chapoval A, Fischelevich R, Gade P, Singh IS, Kalvakolanu DV, Johnson PF, Gaspari AA. A central role for transcription factor C/EBP-beta in regulating CD1d gene expression in human keratinocytes. *J Immunol* 183(3):1657–1666, 2009.

Clinical Trials and Observations

Thomas DL, Thio CL, Martin MP, Qi Y, Ge D, O'Huigin C, Kidd J, Kidd K, Khakoo SI, Alexander G, Goedert JJ, Kirk GD, Donfield SM, Rosen HR, Tobler LH, Busch MP, McHutchison JG, Goldstein DB, Carrington M. Genetic variation in IL28B and spontaneous clearance of hepatitis C virus. *Nature* 461(7265):798–U52, 2009.

DNA: Replication, Repair, and Recombination

Parks AR, Li ZP, Shi QJ, Owens RM, Jin MM, Peters JE. Transposition into replicating DNA occurs through interaction with the processivity factor. *Cell* 138(4):685–695, 2009.

Epidemiology and Prevention

Amundadottir L, Kraft P, Stolzenberg-Solomon RZ, Fuchs CS, Petersen GM, Arslan AA, Bueno-De-Mesquita HB, Gross M, Helzlsouer K, Jacobs EJ, LaCroix A, Zheng W, Albanes D, Bamlet W, Berg CD,

Berrino F, Bingham S, Buring JE, Bracci PM, Canzian F, Clavel-Chapelon F, Clipp S, Cotterchio M, de Andrade M, Duell EJ, Fox JW, Gallinger S, Gaziano JM, Giovannucci EL, Goggins M, Gonzalez CA, Hallmans G, Hankinson SE, Hassan M, Holly EA, Hunter DJ, Hutchinson A, Jackson R, Jacobs KB, Jenab M, Kaaks R, Klein AP, Kooperberg C, Kurtz RC, Li DH, Lynch SM, Mandelsson M, McWilliams RR, Mendelsohn JB, Michaud DS, Olson SH, Overvad K, Patel AV, Peeters PHM, Rajkovic A, Riboli E, Risch HA, Shu XO, Thomas G, Tobias GS, Trichopoulos D, Van Den Eeden SK, Virtamo J, Wactawski-Wende J, Wolpin BM, Yu H, Yu K, Zeleniuch-Jacquotte A, Chanock SJ, Hartge P, Hoover RN. Genome-wide association study identifies variants in the ABO locus associated with susceptibility to pancreatic cancer. *Nat Genet* 41(9):986–U47, 2009.

Genes, Structure, and Regulation

Ranatunga D, Hedrich CM, Wang FY, McVicar DW, Nowak N, Joshi T, Feigenbaum L, Grant LR, Stager S, Bream JH. A human IL10 BAC transgene reveals tissue-specific control of IL-10 expression and alters disease outcome. *Proc Natl Acad Sci USA* 106(40):17123–17128, 2009.

Hematopoiesis and Stem Cells

Suh HC, Ji M, Gooya J, Lee M, Klarmann KD, Keller JR. Cell-nonautonomous function of Id1 in the hematopoietic progenitor cell niche. *Blood* 114(6):1186–1195, 2009.

HIV

Meier A, Chang JJ, Chan ES, Pollard RB, Sidhu HK, Kulkarni S, Wen TF, Lindsay RJ, Orellana L, Mildvan D, Bazner S, Streeck H, Alter G, Lifson JD, Carrington M, Bosch RJ, Robbins GK, Altfeld M. Sex differences in the toll-like receptor-mediated response of plasmacytoid dendritic cells to HIV-1. *Nat Med* 15(8):955–U161, 2009.

Immunology

Shafer-Weaver KA, Anderson MJ, Stagliano K, Malyguine A, Greenberg NM, Hurwitz AA. Cutting edge: Tumor-specific CD8+ T cells infiltrating prostatic tumors are induced to become suppressor cells. *J Immunol* 183(8):4848–52, 2009.

Shanker A, Brooks AD, Jacobsen KM, Wine JW, Wiltrout RH, Yagita H, Sayers TJ. Antigen presented by tumors in vivo determines the nature of CD8(+) T-cell cytotoxicity. *Cancer Res* 69(16):6615–6623, 2009.

continued on page 7

continued from page 6

Inflammation

Takahashi M, Galligan C, Tessarollo L, Yoshimura T. Monocyte chemoattractant protein-1 (MCP-1), not MCP-3, is the primary chemokine required for monocyte recruitment in mouse peritonitis induced with thioglycollate or zymosan A. *J Immunol* 183(5):3463–3471, 2009.

Lymphoid Neoplasia

Purdue MP, Lan Q, Martinez-Maza O, Oken MM, Hocking W, Huang WY, Baris D, Conde B, Rothman N. A prospective study of serum soluble CD30 concentration and risk of non-Hodgkin lymphoma. *Blood* 114(13):2730–2732, 2009.

Mechanisms of Signal Transduction

MacDonald CJ, Cheng RYS, Roberts DD, Wink DA, Yeh GC. Modulation of carcinogen metabolism by nitric oxide-aspirin 2 is associated with suppression of DNA damage and DNA adduct formation. *J Biol Chem* 284(33):22099–22107, 2009.

Molecular Basis of Cell and Developmental Biology

Vanacore R, Ham AJL, Voehler M, Sanders CR, Conrads TP, Veenstra TD, Sharpless KB, Dawson PE, Hudson BG. A sulfilimine bond identified in collagen IV. *Science* 325(5945):1230–1234, 2009.

Microbiology, Biology, Pathology, and Genetics

Collier LS, Adams DJ, Hackett CS, Bendzick LE, Akagi K, Davies MN, Diers MD, Rodriguez FJ, Bender AM, Tieu C, Matise I, Dupuy AJ, Copeland NG, Jenkins NA, Hodgson JG, Weiss WA, Jenkins RB, Largaespada DA. Whole-body sleeping beauty mutagenesis can cause penetrant leukemia/lymphoma and rare high-grade glioma without associated embryonic lethality. *Cancer Res* 69(21):8429–8437, 2009.

Oncogene

Satyanarayana A, Kaldis P. Mammalian cell-cycle regulation: Several Cdks, numerous cyclins, and diverse compensatory mechanisms. *Oncogene* 28(33):2925–2939, 2009.

Sodora DL, Allan JS, Apetrei C, Brechley JM, Douek DC, Else JG, Estes JD, Hahn BH, Hirsch VM, Kaur A, Kirchhoff F, Muller-Trutwin M, Pandrea I, Schmitz JE, Silvestri G. Toward an AIDS vaccine: Lessons from natural simian immunodeficiency virus infections of African nonhuman primate hosts. *Nat Med* 15(8):861–865, 2009.

Protein Function, Structure, and Folding

Pletnev S, Gurskaya NG, Pletneva NV, Lukyanov KA, Chudakov DM, Martynov VI, Popov VO, Kovalchuk MV, Wlodawer A, Dauter Z, Pletnev V. Structural basis for phototoxicity of the genetically encoded photosensitizer killer red. *J Biol Chem* 284:32028–32039, 2009.

Tu C, Zhou XM, Tropea JE, Austin BP, Waugh DS, Court DL, Ji XH. Structure of ERA in complex with the 3' end of 16S rRNA: Implications for ribosome biogenesis. *Proc Natl Acad Sci USA* 106(35):14843–14848, 2009.

Retrovirus Biology

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

Lombardi VC, Ruscetti FW, Das Gupta J, Pfof MA, Hagen KS, Peterson DL, Ruscetti SK, Bagni RK, Petrow-Sadowski C, Gold B, Dean M, Silverman RH, Mikovits JA. Detection of an infectious retrovirus, XMRV, in blood cells of patients with chronic fatigue syndrome. *Science* 326(5952):585–589, 2009.

RNA-mediated Regulation and Non-Coding RNAs

Hodges C, Bintu L, Lubkowska L, Kashlev M, Bustamante C. Nucleosomal fluctuations govern the transcription dynamics of RNA polymerase II. *Science* 325(5940):626–628, 2009.

Matsuda E, Garfinkel DJ. Posttranslational interference of Ty1 retrotransposition by antisense RNAs. *Proc Natl Acad Sci USA* 106(37):15657–15662, 2009.

Uranishi H, Zolotukhin AS, Lindtner S, Warming S, Zhang GM, Bear J, Copeland NG, Jenkins NA, Pavlakis GN, Felber BK. The RNA-binding motif protein 15B (RBM15B/OTT3) acts as cofactor of the nuclear export receptor NXF1. *J Biol Chem* 284(38):26106–26116, 2009.

Watts JM, Dang KK, Gorelick RJ, Leonard CW, Bess JW, Swanstrom R, Burch CL, Weeks KM. Architecture and secondary structure of an entire HIV-1 RNA genome. *Nature* 460(7256):711–U87, 2009.

Zofall M, Fischer T, Zhang K, Zhou M, Cui BW, Veenstra TD, Grewal SIS. Histone H2A.Z cooperates with RNAi and heterochromatin factors to suppress antisense RNAs. *Nature* 461(7262):419–U120, 2009.

Vaccines

Rosati M, Bergamaschi C, Valentin A, Kulkarni V, Jalah R, Alicea C, Patel V, von Gegerfelt AS, Montefiori DC, Venzon DJ, Khan AS, Draghia-Akli R, Van Rompay KKA, Felber BK, Pavlakis GN. DNA vaccination in rhesus macaques induces potent immune responses and decreases acute and chronic viremia after SIVmac251 challenge. *Proc Natl Acad Sci USA* 106(37):15831–15836, 2009. ■



The Challenges of Mentoring

Dimitrov, Klinman, and Le Grice Receive Mentoring Awards

By Maritta Perry Grau, Staff Writer

Recently, NCI Director John E. Niederhuber, M.D., recognized 12 researchers “for their outstanding work as mentors, for their most admirable efforts to guide and shape the careers of young scientists...by creating a successful training environment, being available as a sounding board, communicating effectively, and providing an all-important example of how to be an extraordinary, dedicated scientist,” Dr. Niederhuber said in a recent D-Brief.

Among those 12 are three NCI-Frederick senior investigators in the Center for Cancer Research: Dimiter Dimitrov, Ph.D., was recognized with an Outstanding Mentor Award; Dennis Klinman, M.D., Ph.D., and Stuart Le Grice, Ph.D., received Mentor of Merit Awards.

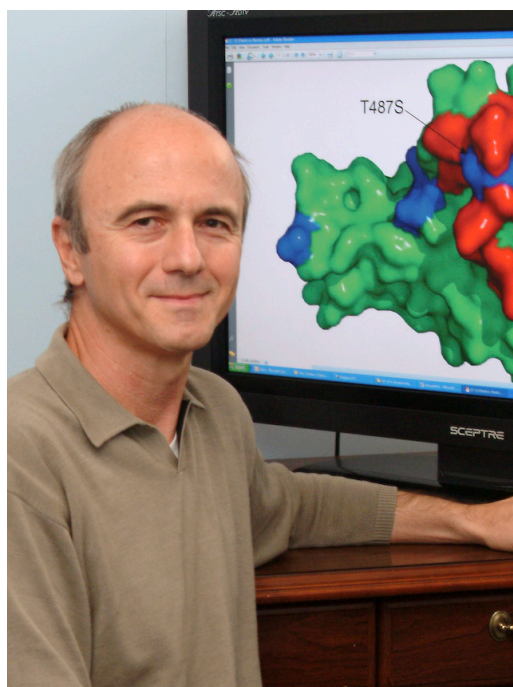
Dr. Niederhuber commented, “It is difficult to overstate the value of their effort. In the past few years, we have identified as an Institute priority the need to bring new minds to biomedical research. NCI committed significant resources from economic stimulus funds to universities across the country for education and training, and to help new faculty members get a solid start in their academic careers.”

We asked the three NCI-Frederick investigators to discuss the challenges of being mentors.

Mentoring Is Rewarding

Dr. Dimiter “Mitko” Dimitrov, head of the Protein Interaction Group, Nanobiology Program, noted that being a mentor is especially rewarding when you “discuss new ideas with young scientists who are interested in science and suggest original solutions of scientific problems.” He also said that this award is his most precious “because I was nominated by my mentees with whom I share my life every day, as in a big family.”

Dr. Dennis Klinman is head of the Immune Modulation Group, Laboratory of Experimental Immunology, Cancer Inflammation Program. Dr. Klinman recognized that mentoring is a way of “paying forward” the help a researcher receives from others. He quoted Isaac Newton, “If I have seen further, it is by standing on the shoulders of giants.” All of us participating in the scientific enterprise benefit enormously from the training we’ve received from our mentors and colleagues. I just try to carry on that tradition, and am rewarded by the success



Dimiter Dimitrov, Ph.D.

of those who’ve spent time in my lab.”

Dr. Stuart Le Grice who heads the RT Biochemistry Section, HIV Drug Resistance Program, finds that mentoring is rewarding in many ways. “One is seeing that some of my early high school trainees have returned to the lab annually for more than six years, which indicates an interest in the lab and its personnel. Another is when anyone in the lab receives an award, such as the NCI Director’s Innovation Award. Most important is seeing my fellows move on into an academic position. Finally, receiving a mentoring award based on the

recommendation of my lab personnel is something I feel very proud about.”

A Mentor Teaches Many Lessons

The three scientists have a variety of “mentees” at every level from high school to postgraduate. The mentors make time for both individual and group discussions of scientific problems and progress.

Dr. Dimitrov has had both high school and college students, but currently has only postgraduate and postdoctoral scientists; in all, 11 employees. “On average, each day is about one to two hours mostly discussions on scientific problems but also on other problems that could affect research,” he said.

Dr. Klinman mentors eight postdoctoral fellows and one dental student. “I meet one-on-one with every fellow several times a month, and have an ‘open door’ policy, which means if my door is open, anyone is welcome to come in and discuss science. On average, I spend about a quarter of my time in direct mentoring,” he estimated.

Dr. Le Grice said that his staff includes high school students, Werner Kirsten intern students, visiting scientists, postdoctoral fellows, and full-time staff—about 12 employees. “I try each day to be in the lab and have enough time to discuss shortly the progress of each project. Projects are discussed in more detail at group meetings or in my office,” he said.

All three awardees mentor their students through various means, from suggesting lines of research, supervising experiments, and checking lab notes, to reviewing mentees’ papers.

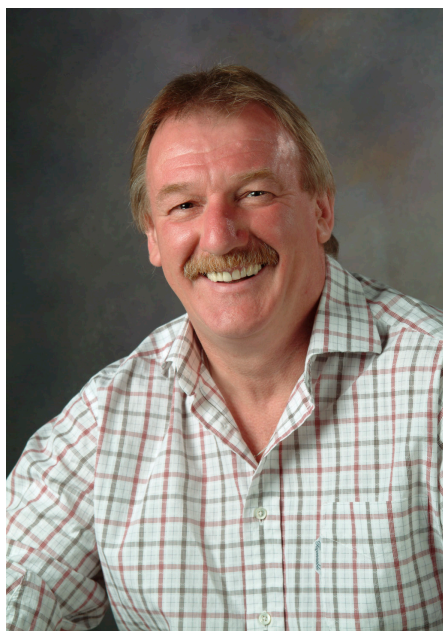
Dr. Klinman explained, “There are many lessons my fellows must learn before leaving the lab.” These include:

- How to select a good project;
- How to review the literature and identify novel/important questions;
- How to use the literature and other resources to select the best technique to answer a scientific question;

The Challenges of Mentoring

- How to conduct a solid, well-controlled experiment (and when it's OK to do a "quick and dirty" preliminary experiment);
- How to interpret the results of an experiment, including appropriate statistical analysis, and use this information to plan follow-up studies; and
- How to prepare findings for presentation (including considerable time spent preparing and revising manuscripts).

Dr. Le Grice added that in his lab, high school and SIP students are always matched with a senior investigator. That way, his lab personnel gain direct, hands-on experience in bearing the responsibility for overseeing a project in addition to their own. "At this level, my philosophy is that, once the overall goals are set, the 'learning' process should be shared by the mentee and lab investigator, and I am informed at regular intervals on progress. High school students are also required to present their data at our lab meeting at the end of their stay. Postdoctoral fellow mentoring takes the form of brief discussions in the lab, more extended discussions in my office, and formal presentations at the lab or program level."



Stuart Le Grice, Ph.D.

Dr. Le Grice encourages his fellows to attend at least one national meeting each year, and requires them to report to the lab about the meeting they attended. His postdocs also review papers for scientific journals and write their own manuscripts. "Lines of research are normally mutually agreed upon, giving the mentee the opportunity to indicate what he or she likes/dislikes about the project," he said.

Mentors Are Inspired by Their Own Teachers

Reflecting on their own experiences with mentors early in their careers, the researchers identified icons from as long ago as early childhood.

Dr. Dimitrov singled out Dr. Robert Blumenthal "who hired me 20 years ago as a visiting scientist at NIH. I find myself emulating him in many aspects, including my relationships with my associates. He is absolutely amazing in his interest in science and willingness to share his valuable time at any moment and discuss ideas and experiments."

Dr. Klinman said he was "first inspired to pursue a career in research at the age of four, watching Mr. Wizard on television. I had numerous professors in college and graduate school who taught and inspired me, and many senior investigators at NIH who supported my career. I'm particularly encouraged by the strong support provided for basic research here at NCI."

Dr. Le Grice said, "Advice from my first postdoctoral supervisor, Dr. John G. Scaife, University of Edinburgh, has carried me through my entire research career. Progress in science is made through sharing and discussing scientific data. When conducting research,

honesty and integrity should never be compromised. Take pride in how you nurture your junior colleagues—their success is your reward."



Dennis Klinman, M.D., Ph.D.

A mentor faces many challenges in working with students and postgraduates, as the mentor tries to teach, to encourage, and still carry on his or her own research. Dr. Niederhuber commented, "We should never forget, though, the extraordinarily fertile training ground that is the NIH campus. The students who work in our

midst—from high school and college to postdoctoral fellow—help keep our laboratories vibrant and successful. Often it is these young people who are the greatest scientific risk takers. Mentors help them channel enthusiasm into new heights of achievement."

Dr. Dimitrov summed up the mentor's many challenges as really teaching the mentee "everything that could affect the life of a scientist." ■

Postdoctoral Appreciation

Postdocs Team Up to Celebrate

*By James Gould, Guest Writer,
Laboratory of Experimental Immunology*

The National Postdoctoral Association (NPA) has instituted a National Postdoc Appreciation Day to celebrate the important contributions that postdoctoral fellows make at their home institutions.

NCI-Frederick hosts more than 250 postdoctoral fellows at any given time; making for a very dynamic

community, but one that is difficult to mobilize. So members of the Center for Cancer Research (CCR) Fellows Steering Committee, Dr. James Gould and Leslie Chinn, worked with Outreach staffers Julie Hartman and Barbara Birnman to set up the event.

Their hard work paid off when nearly 100 postdocs and principal investigators showed up at the tent on the front

lawn of Building 549 to celebrate on September 24. Treated to ice cream and popsicles, the celebrants received information about NPA, the NIH Fellows Committee, and the CCR-Fellows and Young Investigators (CCR-FYI) Steering Committee, and were given copies of the NIH postdoc handbook.

The group gathered for a photo that will be part of a larger collage of NIH fellows for a welcoming gift to the new NIH Director, Dr. Francis Collins.

The NCI-Frederick postdoctoral community is truly an international one: about 50 percent of trainees come from outside the United States. Postdocs generally remain in a position an average

of three to five years, with some doing multiple fellowships in several labs or different institutions.

If you are interested in becoming a postdoctoral fellow, you can check for jobs on the NIH or NCI databases or at web sites for postdoctoral fellowships. However, one of the most effective ways to become a postdoctoral fellow is through networking and directly contacting principal investigators who are doing interesting work in your field.

career-oriented events on campus, as do the CCR Office of Training and Education and the NCI-Frederick Office of Outreach. The CCR-FYI Steering Committee provides support and advocacy for postdoctoral and clinical fellows at NCI in all aspects of their training and career development. This latter committee also supports the annual Fellows Colloquium and the NCI-Frederick Postdoc Seminar Series. Finally, there is also a



A large group of postdoctoral fellows gathered for the first National Postdoc Appreciation Day held in September on the NCI-Frederick campus. The picture will be part of a montage gift for NIH Director Dr. Francis Collins.

Fellows at NCI-Frederick have ample resources to help with career development. For example, the NIH Office of Intramural Training and Education hosts several monthly

growing movement to build a stronger postdoctoral community in Frederick by engaging fellows outside of the lab in social, academic, and cultural activities.

For more information on aspects of postdoctoral fellowships, contact Dr. Gould, gouldj@mail.nih.gov or 301-846-7543. Or visit the following web sites:

CCR-FYI: <http://ccr.cancer.gov/careers/fellows/default.aspx>

CCR OTE: <http://ccr.nci.nih.gov/careers/> (Jobs, career development and CCR-FYI)

Frederick Fellows: Frederick_Fellows@list.nih.gov (Listserv for Frederick fellows)

NCI-Frederick: <http://web.ncifcrf.gov/default.aspx>

NIH Listserv: <https://list.nih.gov/> (Join and monitor listservs)

NIH OITE: <http://www.training.nih.gov> (Job listings and career development)

NPA: <http://www.nationalpostdoc.org> ■

Student Interns

Two Student Interns Named Semifinalists in Siemens Competition

By Ashley DeVine, Staff Writer

Two Werner H. Kirsten student interns were named semifinalists in the 2009–2010 Siemens Competition in Math, Science, and Technology. Class of 2010 students Shaan Ahmed, Tuscarora High School, and Stephen Lavanier, Governor Thomas Johnson High School, were among the 18 semifinalists chosen in Maryland.

“Through this competition, students have an opportunity to achieve national recognition for science research projects that they complete in high school,” according to the Siemens Foundation web site, <http://www.siemens-foundation.org/en/competition.htm>. The competition is administered by The College Board and funded by the Siemens Foundation.

Working with mentors Anne Monks, Ph.D., and Nicole Fer in the Division

of Cancer Treatment and Diagnosis Screening Technologies Branch, Mr. Ahmed studied Palmerolide A, “a naturally occurring marine macrolide and potential anti-melanoma compound that has been found to be cytotoxic in UACC-62 (melanoma) cells,” he said. Mr. Ahmed’s project was titled “Palmerolide A, a natural compound



Stephen Lavanier



Shaan Ahmed

from an Antarctic tunicate, induces stress pathways in human melanoma cells involving autophagy and the garbage packaging protein p62.”

Mr. Lavanier studied the mechanisms of JS-K, a promising anticancer compound, in his research project titled “The role of CDNB in understanding the mechanism of action of JS-K, a promising anti-leukemia compound.”

“My data indicate that the arylating ring of JS-K, in addition to its ability to release nitric oxide, is a major contributor to the anticancer effects of this compound,” he said. Mr. Lavanier worked with mentor Monika Kaczmarek, Ph.D., and principal investigator Sandra Ruscetti, Ph.D., in the Retroviral Molecular Pathogenesis Section of the Laboratory of Cancer Prevention. Both interns were thankful for the help and support of their mentors. “I really appreciate both my mentors for all their hard work with me with this project and writing the report, and putting up with my procrastination,” Mr. Ahmed said. “I would like to personally thank my wonderful mentor, Dr. Monika Kaczmarek, and my principal investigator, Dr. Sandra Ruscetti, for all of their

support on my research project,” Mr. Lavanier said. ■



Court and Costantino Receive "Excellence in Technology Transfer" Award

By Courtney Silverthorn, Guest Writer,
Technology Transfer Center

Donald Court, Ph.D., and Nina Costantino, Gene Regulation and Chromosome Biology Laboratory, NCI-Frederick, were recognized with an Excellence in Technology Transfer Award at the 2009 Federal Laboratory Consortium's (FLC's) Mid-Atlantic Region (MAR) Meeting awards ceremony on September 17.

The nomination, "Innovative Techniques and Reagents for Improved Genetic Engineering," was based on their development of specialized bacterial strains and plasmids that utilize the homologous recombination system in *E. coli* harnessed into an enabling platform technology ("recombineering") that allows highly efficient and rapid genomic manipulation.

Dr. Court and Ms. Costantino were recognized for seeking technical support and technology transfer mechanisms to provide this technology as broadly as possible. This support included interactions with NCI's Technology Transfer Center, NCI's Preclinical Repository, operated by the Biological Resources Branch, and NIH's Office of Technology Transfer. These efforts resulted in distribution of the plasmids and bacterial strains to more than 1,100 non-commercial recipients using material transfer agreements, as well as to 18 companies under royalty-bearing licenses.

Dr. Court and Ms. Costantino have made additional technical know-how available through their recombineering web site (<http://recombineering.ncifcrf.gov/>), enabling recipients to rapidly adopt this innovative platform technology. In response to the Excellence in Technology Transfer Award, they said, "We're very excited to have received thousands of requests for strains and help in using

this technique. It's significantly changed the way we and other scientists do genetics, and we're honored to have been recognized with this award."

The FLC brings together more than 250 U.S. federal laboratories and centers to share techniques and expertise in the transfer of scientific discoveries to the marketplace. The FLC MAR gives an Excellence in Technology Transfer Award annually to recognize those who have displayed exemplary effort in the transfer of technology from a federal laboratory.

Also recognized from NCI at the 2009 FLC MAR meeting were Dr. Frederic Kaye (Excellence in Technology Transfer) for his cancer cell line bank; Karen Maurey, director, NCI Technology Transfer Center (Outstanding Technology Transfer Professional Award); and Dr. Robert Wiltout, director, Center for Cancer Research (Laboratory Director of the Year).



Dr. Robert Wiltout, director of CCR, was recognized as Laboratory Director of the Year at the fall Federal Laboratory Consortium meeting.



Dr. Donald Court (left) and Nina Costantino received Excellence in Technology Transfer awards at the fall Federal Laboratory Consortium meeting.

This latter award recognizes the laboratory director who has made maximum contributions to the overall enhancement of technology transfer for economic development.

"It is an honor to receive the award, and I and my colleagues at the Center for Cancer Research recognize the importance of supporting and building strong scientific partnerships with public and private institutions. Working together, we can accelerate the speed at which we bring scientific discoveries to the marketplace for the ultimate benefit of public health," Dr. Wiltout stated. ■

Employee Assistance Benefits: For You AND Your Household Members

By Nancy Parrish, Staff Writer

Let's face it: life is not always a bowl of cherries. From time to time, everyone is faced with financial or legal concerns, stress overload or anxiety, parenting issues, grief, or workplace conflicts—or a combination of these. Sometimes, these issues interfere with our family or workplace responsibilities.

At such times, you can take advantage of the Employee Assistance Program (EAP), a benefit that provides access to free and confidential assistance to help you cope with challenging personal or work-related issues.

Provided and administered through Business Health Services (BHS), the program offers assistance to *all NCI-Frederick and contractor employees and their household members*. Benefits

include up to five free, face-to-face personal counseling sessions per person, per issue, per calendar year. You can get assistance with personal, professional, or family problems through short-term professional counseling with a licensed clinician located either on site at NCI-Frederick or near your home or work.

For longer-term issues and/or additional support, EAP also provides referrals to in-network providers and community resources.

Help with Legal and Financial Issues Also Available

Should you need legal help—with issues like estate planning, real estate concerns, motor vehicle violations, business matters, and more—the EAP

provides you with up to one half-hour of free consultation with a qualified attorney per problem episode per calendar year. Initial legal consultation is free for up to 30 minutes and may be provided via telephone or in-person. Should further legal assistance be needed, EAP will connect you to a local professional at a discounted hourly rate.

Financial services include help with debt management, credit counseling, college or retirement funding, and more. Initial financial consultation is free for up to 60 minutes and is provided via telephone only. Should further financial assistance be needed, your consultant will provide you with referrals to community resources.

For More Information

You can visit BHS at <http://www.bhsonline.com> (enter the username NCIF). There you can access newsletters, tip sheets, and an extensive Online Resource Library on a variety of issues such as adoption, buying a home or car, heart health, pregnancy, wills, substance abuse, and more. ■

I get benefits too?



Yes! NCI-Frederick extends its Employee Assistance Program (EAP) to HOUSEHOLD MEMBERS, too!

How to Contact Business Health Services

Call 1-800-765-3277. Clinicians are available to answer your call 24 hours a day, 7 days a week.

To reach the NCI-Frederick on-site counselor directly, call 301-846-1308, Tuesdays or Wednesdays, 7:00 a.m. until 6:00 p.m.; or Fridays, 7:00 a.m. until 11:00 a.m.

All calls are held in the strictest confidence, as governed by federal regulations.

Don't forget! Household members are eligible to use the web site and/or call the EAP on their own to access any of the services.

Poster People Profile

Megan Etzler: ARC Administrator and Bracket Racer

By Ashley DeVine, Staff Writer

During the week, Megan Etzler, administrative technician, Administrative Resource Center (ARC), NCI-Frederick, provides administrative support to two labs, works as coordinator of the Integrative Time and Attendance System (ITAS), and assists with the Travel Core. But on the weekends, you will find her bracket racing in an M&M rear-engine dragster that can travel up to 175 mph.

“The first time you go fast, it is a rush that is indescribable,” Ms. Etzler said. She became interested in bracket racing at the age of eight when her father took her to a race track. “I saw kids my age racing and I thought it was so neat,” she said. When Ms. Etzler turned 16, not only did she obtain her driver’s license, she also received a license to drive a rear-engine dragster. “Bracket racing is when two cars dial in their time; meaning it takes me 7.60 seconds to get to a quarter of a mile,” Ms. Etzler said.

After both cars dial in, the one with the slower dial-in time will get a head start. For example, if car A dials in at 17.75 seconds for a quarter of a mile and car B dials in at 15.25 seconds, car A would get a 2.5 second head start. Winning a race requires a combination of the best reaction time and a finishing time that is closest to the car’s dial-in time.

Ms. Etzler races every weekend at the Mason Dixon Dragway in Hagerstown. She’s also traveled up and down the East Coast from Florida to New York, and as



Megan Etzler, Administrative Technician, Administrative Resource Center, NCI-Frederick

far west as Indiana. “I love to win. The rush you get after you win makes it all worthwhile. Also, the racetrack is like a big family,” she said. Ms. Etzler has won three track championships in junior

dragsters, won a Superpro championship her first year, and she’s received various track awards, such as Lady Racer, Most Likely to Go Pro, Most Improved, etc.

There is always risk involved with racing at high speeds, as Ms. Etzler learned when her motor blew at a race at Virginia Motorsports Park in 2006.

“I was going 145 mph and I heard this big BANG! My tires locked up and went sideways. I never crashed, but it was a scary experience,” she said.

In February 2007, Ms. Etzler began working at NCI-Frederick in a student position while pursuing a bachelor’s degree in elementary/special education at Hood College. She applied for a full-time position with the company in August 2008. “I assist an administrative officer with supporting two labs that we have here in Frederick,” she said. These two labs are the Laboratory of Cancer Prevention (LCP) and the Cancer and Developmental Biology Laboratory (CDBL). Ms. Etzler reviews all personnel packages for employees whom these laboratories want to hire. The ARC is a laboratory’s point of contact for all administrative questions.

Ms. Etzler is also the coordinator of ITAS, the government’s timekeeping system, and assists with managing NCI-Frederick employee travel in the Travel Core. “A typical work day for me is an adventure. There is always a new challenge to tackle and that is what I love about my job,” she said.

Working in the ARC, Ms. Etzler takes the burden of administrative work away from scientists so they can focus on cancer and AIDS research. She also supports NCI-Frederick’s mission by working in the Travel Core. “I help review travel for the scientists to attend conferences that will help them gain more knowledge about the fight against cancer and AIDS,” she said.

Ms. Etzler says her college background has helped in her administrative position and in working with scientists. “I can understand or relate to what the scientists are doing here at Fort Detrick because of the classes I took in college,” she said. In addition to her bachelor’s degree, Ms. Etzler has completed government system-related training courses, such as Basic and Advanced ITAS training, Domestic and Foreign Travel training, and Capital HR, to further her administrative skills. ■



Ms. Etzler bracket races in an M&M rear-engine dragster

Jeff Yoder, M.D.: Moving from the Bench to the Bedside

By Nancy Parrish, Staff Writer

Jeff Yoder knew he was going to graduate school before he ever finished high school. But once he got there, his interests changed from scientific research to clinical practice, and today he is a staff anesthesiologist at a large metropolitan hospital.

A 1995 graduate of Frederick High School, Dr. Yoder was a Werner H. Kirsten student intern at NCI-Frederick in 1994–1995, working with mentor James Kenny, Ph.D., in the Laboratory of Leukocyte Biology. “My experience [as a student intern] was a major influence on my decision to pursue graduate education following college,” he said.

Dr. Yoder graduated summa cum laude with a B.S. in biochemistry from the University of Maryland Baltimore County in 1999, and in the same year he entered Washington University School of Medicine in St. Louis, Missouri. An avid runner in those days, Dr. Yoder completed the Marine Corps Marathon in Washington, D.C., as well as marathons in Chicago and Houston while attending college and medical school.

Changing Focus

Initially enrolled in an M.D./Ph.D. program, Dr. Yoder was actively involved in research during the early years of medical school; one of his projects culminated in a publication in *Science*. However, as he progressed through the medical school curriculum, he said, he “developed an increasing interest in clinical medicine and patient care, and ultimately chose to focus on this, obtaining an M.D. in 2003.”

He and his wife, a classmate, were married right after graduation, and they remained in St. Louis for their respective residencies. For Dr. Yoder, this was a one-year internship in general internal medicine and a three-year residency in anesthesiology at Barnes-Jewish Hospital.



Former student intern Dr. Jeff Yoder, shown here with his 2-year-old daughter, recently moved from St. Louis to Denver, where he is an anesthesiologist at a large hospital.

During his final year of residency, his daughter was born, and about the same time he accepted a fellowship in neuroanesthesia, which, he said, involves “surgical anesthesia care of patients for brain and spine surgery, as well as ICU [intensive care unit] care.” He also accepted a full-time faculty position at Washington University School of Medicine.

It was a busy time for Dr. Yoder, he admitted, but also “tremendously rewarding. I enjoyed the often complex and challenging cases, as well as the opportunities for research, and teaching of residents and medical students. I authored several publications, gave

lectures, and wrote book chapters.”

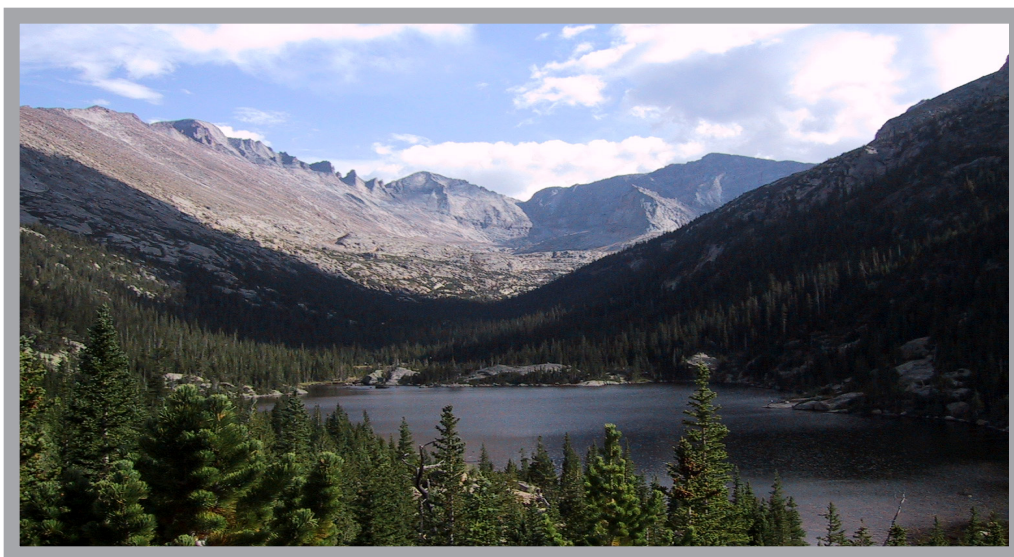
Last year, Dr. Yoder and his wife moved to Denver, Colorado, so that she could pursue her subspecialty as an allergist. Dr. Yoder is currently a staff anesthesiologist at Saint Anthony’s Central Hospital.

So far, Colorado seems to agree with him. While no longer running, he said, “I still enjoy the outdoors... particularly hiking. There are about 50 peaks in Colorado over 14,000 feet, and I am working my way through climbing all of these.... I am enjoying this immensely.”

Dr. Yoder’s primary memories of his days as an intern include the people he worked with. “Everyone was enthusiastic about what they were working on, and seemed to enjoy teaching and getting me involved,” he recalled. “We had a lot of fun times in and out of the lab.”

“Make the Most of It”

Dr. Yoder advises current student interns to take advantage of this opportunity, maintain a good attitude, and learn as much as you can. “Remember that this is truly a unique opportunity; make the most of it. Keep a positive attitude and ask lots of questions. Be enthusiastic, work hard, and make a good impression on your mentor and labmates. Learn as much as you can about the business of science. These things are more important than the success or failure of your individual project.” ■





This could have been yours! Paul Miller, Executive Editor of the *Poster*, holds the Puzzler prize that was not awarded this quarter. He is standing next to the post-indicator valve that stumped our readers in the September issue. ■

The Poster Puzzler:

Guess We Stumped You!

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

For the first time in Puzzler history, we received no correct answers for the September Puzzler, which is the post-indicator valve near Building 434. A post-indicator valve is the main shut-off valve for the automatic sprinkler system within a building. In the event of a fire, these valves are used to shut off the water supply to a building's sprinkler system so the fire department can use fire engine pumps to supply water from a nearby fire hydrant. The National Fire Protection Association requires these valves, which are installed at the same time sprinkler systems are installed in buildings. The valves are always located outside a building where the main groundwater supply pipe enters the building. Forty-two buildings on the NCI-Frederick campus have post-indicator valves. ■



Puzzler



Guess We Stumped You!



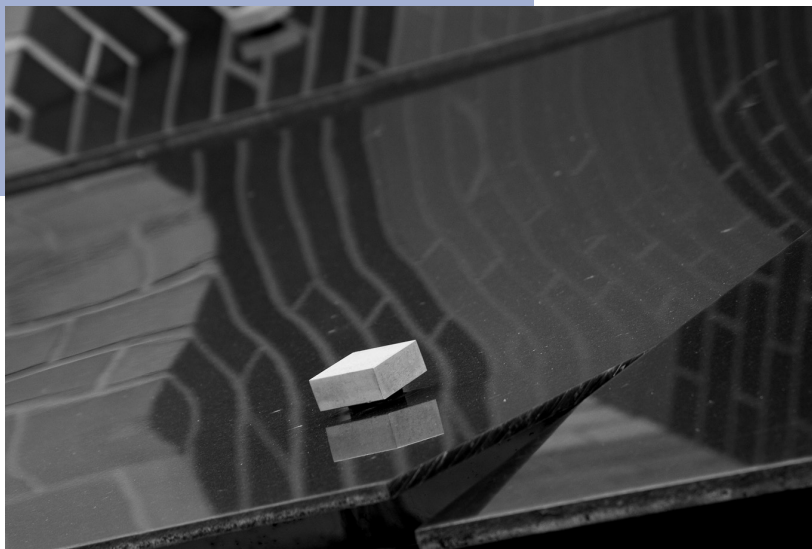
Poster Puzzler

What is it?

Where is it?

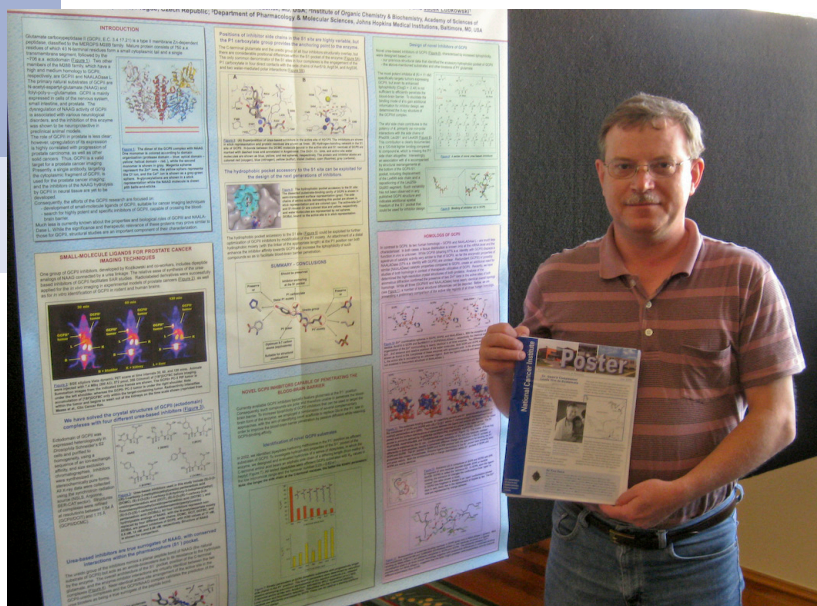
Your challenge, should you decide to accept it, is to correctly identify the item and its location from the picture to the right. Clue: It's somewhere at Fort Detrick/NCI-Frederick. Win a framed photograph of the Poster Puzzler and an NCI-Frederick tee shirt by e-mailing your guess, along with your name, 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, January 22, 2010**, and the winner will be drawn from all correct answers received by that date.

Good luck and good hunting! ■



Have Poster, Will Travel

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



While in Surfers Paradise, Queensland, Australia, Jacek Lubkowski, Ph.D., Chief, Macromolecular Assembly Structure and Cell Signaling Section, Macromolecular Crystallography Laboratory, paused for a photo with the poster he presented for the sixth International Proteolysis Society Meeting, October 26–30.

Get in the Holiday Mood

By Maritta Perry Grau, Staff Writer

Break out the tinsel and mistletoe, chimes, and bells. December and January mark special holidays for people in many different cultures. Whether you're celebrating Hanukkah (Jewish) beginning December 12, Al Hijira (Muslim new year) beginning December 18, the winter solstice December 22, Christmas (Christian) December 25, Kwanzaa (African American) December 26, or the New Year on January 1, there's probably a religious, national, or cultural winter holiday that you observe. Go to <http://main.uab.edu/Sites/students/life/leadership/33689/> to find detailed lists of holidays for every month of the year.

Stop by the NCI-Frederick café and watch the December movie, *Nothing Like the Holidays*, on December 17 and 18, or check it out at the Scientific Library after December 31. The 2008 movie follows the Rodriguez family, gathering at their parents' home in Chicago for a Christmas celebration, only to learn that their mother plans to divorce their father. The announcement stuns them all but also motivates them to work together to re-establish their family connections and help their parents resolve issues.

Many people in the United States break out their favorite foods during the cold winter months of November through February, so we thought we'd offer you an international meal from the *Spring Research Festival Cookbook 2009*. More recipes are available in our 2009 cookbook on line at <http://diversity.ncifcrf.gov/specials/cookbook/2009-EDT-Cookbook.pdf>.

Let us know how these recipes worked AND send us your favorite recipes to include in the *2010 Diversity Cookbook*. You can submit your favorite recipe on-line at the EDT web site, <http://diversity.ncifcrf.gov/>. Just click on "Submit a recipe."

Appetizer: Porotos Granados

You could make this appetizer a day ahead, warm it up and add the corn at the last minute.

Ingredients:

- 4 lbs. fresh cranberry beans
- ¼ cup oil
- ½ teaspoon paprika
- 1 lb. Butternut squash, peeled and cubed
- 2 cups onions chopped
- 2 garlic cloves, crushed
- 5 leaves of fresh basil
- Salt
- 2 ears of corn, kernels only

Directions: In a large saucepan, cook the beans in plenty of salted water for one hour or until tender. Drain and reserve 1 cup of cooking liquid. In a frying pan heat the oil, add the paprika, squash, onions, and garlic; sauté until they are tender. Add this mixture, basil, and salt to the beans. Cook over heat for one hour or until the beans are soft. Add some chicken broth if necessary. Add the corn 5 minutes before serving.

Bread: Tea Biscuit

These light biscuits make a refreshing counterpoint to the salad and spice-heavy main dish we've included for this meal.

Ingredients:

- 1 cup sugar
- 1 cup butter
- 3 eggs
- 1 cup raisins
- 1 teaspoon nutmeg
- 1 teaspoon cinnamon
- ½ teaspoon soda
- 2 cups milk
- 2 lbs. flour

Directions: Put the sugar and butter in a bowl and cream for 5 minutes. Add eggs and mix well. Add raisins, nutmeg, cinnamon, soda, milk, and flour. Mix well and toss on lightly floured board and roll out very thin. Cut as desired. Put on greased baking sheet and bake in a moderate oven 12–15 minutes.

Salad: Village Salad

Ingredients:

- 1 large cucumber
- 3 tomatoes
- A few washed lettuce leaves
- 1 onion, peeled and chopped
- 2 oz. feta cheese
- 1 tablespoon lemon juice
- 4 tablespoons olive oil
- Dried mint
- Salt
- 8 black olives

Directions: Dice the cucumber and tomatoes into small pieces, about ¼ in. Place the lettuce in a salad bowl and add the diced vegetables and the onion. Cut the cheese into small cubes. Prepare the dressing with lemon juice, oil, mint, and salt. Mix thoroughly; pour the dressing over the salad in the bowl, toss. Arrange the olives around the side and the cheese in the center.



Main dish: Jamaican Jerk Chicken

Just substitute that Christmas turkey for the chicken! And beware—you may want to substitute milder peppers for the ones listed here.

Ingredients:

- 1 whole fryer chicken, cut into 8 pieces
- Salt
- Spices:
 - 1/2 of one whole nutmeg
 - 1 tablespoon coriander seeds
 - 6 allspice seeds
 - 1 (3-inch) cinnamon stick
 - 1 teaspoon cloves, whole
 - 1 teaspoon black peppercorns

Marinade:

- 1 bunch green onions, chopped
- 1 large onion, coarsely chopped
- 2 to 3 Scotch Bonnet or Habanero peppers, seeded and membrane removed (*see Cook's Note*)
- 10 sprigs thyme, leaves only
- 10 garlic cloves
- 1/2 cup fresh lime juice or white vinegar
- 1 cup light soy sauce
- 1/2 cup raw (turbinado) sugar

Directions: Toast the spices in a dry skillet over medium-low heat, stirring constantly until fragrant, about 1 to 2 minutes. Grind the spices using an electric spice/coffee grinder or mortar and pestle. Set aside.

In a blender or food processor, puree the green onions, onion, peppers, thyme, and garlic to a smooth paste. Place mixture in a bowl and add the toasted/ground spices, lime juice or vinegar, soy sauce, and raw sugar; mix well.

With a sharp knife, score the chicken pieces in several places and season with salt. Spoon desired amount of jerk marinade over chicken and rub into scores. Marinate, covered, in the refrigerator for a minimum of 2 hours or overnight.



Preheat the oven to 350 °F (175 °C). Bake chicken for 35 minutes in the oven. Remove from the oven and finish the chicken on a hot grill or under the broiler.

Makes 4 servings

Cook's note: *Habanero pepper is one of the hottest chili peppers in existence. The Scotch Bonnet/Habanero is rated at 100,000 to 300,000 Scoville units (degree of hotness), whereas the Jalapeno pepper is rated at 2,500 to 5,000 Scoville units. Observe extreme caution when preparing these peppers. We advise you to wear rubber gloves during their preparation and to thoroughly wash your hands, cutting board, and utensils after preparation. Above all, please remember NOT to rub your eyes or any other sensitive areas when working with these peppers!*



Dessert: Mango and Banana Sundae and Christmas Seed Cookies

After that Jamaican jerk chicken or turkey, you'll be ready for something cool.

Mango and Banana Sundae

Ingredients:

- 1 mango, fresh or canned
- 2 bananas
- 2 tablespoons lemon juice
- 4 tablespoons orange juice
- Vanilla ice cream

Directions: Peel and chop the mango. Peel and slice the bananas. Put the fruit into a large bowl. Add lemon and orange juice. Toss lightly. Serve the ice cream in a sundae dish and cover ice cream with the mixed fruit.

Accompany the ice cream with Christmas seed cookies. This is holiday time, after all!

Christmas Seed Cookies (Hungary)

Ingredients:

- 2 1/2 cups sifted cake flour
- 1/2 tsp. baking powder
- 1/8 tsp. salt
- 1 cup sugar
- 2 egg yolks
- 1 tsp. vanilla
- Seed such as caraway, sesame, or anise

Directions: Sift dry ingredients; cut in butter. Add egg yolks and vanilla, blend. Chill several hours. Roll to a 1/8 inch thickness on floured board, and cut into fancy shapes. Put on cookie sheets, and sprinkle with seed. Bake about 8 minutes in 400 °F oven. Makes about 8 dozen small cookies. ■

NCI-Frederick Administrators Meet to Build Collaborations and Promote Communication

By Erin King, Contributing Writer, Administrative Resource Center

The NCI-Frederick Administrative Resource Center (ARC) and Administrative Laboratory staff joined together to host the quarterly Administrative Information Meeting (AIM) at Nallin Pond on Tuesday, October 6.

“The focus of the meeting was to have a joint administrative team-building event where colleagues could share information and knowledge as well as meet the staff they communicate with via e-mail or telephone,” said Tanya Sappington, acting ARC manager.

Each activity at the meeting was designed to build collaborations and promote communication. In addition to discussing information about technology transfer, immigration, and ethics requirements, staff also learned that ARC administrator Tim Sakemiller can still

do a cartwheel and ARC administrator Shawn Palmer served on her high school homecoming court.

The event began with a scavenger hunt, where the 31 staff members in attendance were required to obtain each work-related answer from a different person. The questions were specific to all the job titles represented at the meeting so everyone could contribute answers.

For example, one of the questions was “What does PIV stand for?” The answer to this question is Personal Identification Verification. This is the process that federal employees and contractors who routinely gain access to federal facilities and information systems must go through. Applicants must prove their identities, be fingerprinted, and have background investigations before receiving a federal ID badge, called a PIV card.

At the conclusion of the event, everyone gathered to sample and judge homemade desserts. The winner of the best dessert was Kimberly Mellon, administrator for the Laboratory of Protein Dynamics, with Grandma Ople’s Apple Pie (see recipe below) made with her mother’s “always perfect” pie crust.

The planning committee would like to thank everyone who participated in making this event a success. “It was great getting to know people on a more personal level and to be able to put a face with a name,” said Susan Matheson, administrator for the Macromolecular Crystallography Laboratory. Committee members included administrators Betsy Brawner, Terry Burdette, Debbie Dixon, Megan Etzler, Lori Hare, Chris Hayter, Erin King, Lori Larson, Marg Mills, and Annie Rogers.

Future AIM presentations will focus on administrative systems, immigration policies, conference planning, and other related topics. ■

Grandma Ople’s Apple Pie: Kim Mellon’s Version

Prep time: 30 minutes

Cook time: 1 hour

Ingredients:

2 ready-made pie crusts for bottom and top, or 9-inch pie crust recipe, or “Kim’s Mom’s Always-Perfect Pie Crust”
1/2 cup unsalted butter
3 tablespoons all-purpose flour
1/2 cup white sugar
1/2 cup packed brown sugar
1/4 cup water
1/2 teaspoon vanilla
1–2 teaspoons cinnamon
1/2 teaspoon nutmeg
8–10 tart and sweet mixed apples—peeled, cored, and sliced

Directions:

Prepare crust and place crust in deep 9-inch pie plate or pan.
Melt butter in saucepan. Stir in flour to form a paste. Add white sugar, brown sugar, water, and vanilla; bring to a boil. Reduce temperature and simmer 5–10

minutes (be careful not to allow liquid to over-thicken).

In a large bowl, gently toss apples in cinnamon, nutmeg, and 2/3 of the butter and sugar syrup mixture.

Fill pie plate/pan with apples, mounded slightly. Cover with a lattice work (or leaves) of crust. Gently drizzle the remaining sugar and butter liquid over the crust. Pour slowly so that it does not run off.

Bake 15 minutes at 425° F (220° C).

Reduce the temperature to 350° F (175° C), and continue baking for 35 to 45 minutes.

Kim’s Mom’s Always-Perfect Pie Crust

Ingredients:

4 cups unsifted flour
1 tablespoon sugar
1 teaspoon salt
1¾ cups Crisco (I use the bars)
1 large egg, beaten
1/2 cup water
1 tablespoon white or cider vinegar

Directions:

Whisk first 3 dry ingredients in large mixing bowl. Add shortening; mix with fork or pastry cutter until crumbly. In a small bowl, beat together egg, water, and vinegar. Add to large bowl, combining mixtures until moistened. Press into ball and divide into 3 individual crusts. Use, refrigerate, or freeze.



Tips:

For pie tops, brush with milk and sprinkle with sugar.
To make decorative leaves, roll out leftover dough and freehand cut into oval or other leaf shapes, then lightly etch a center stem on each leaf. Arrange on pie. Add a little circle of berries or cookie cutter shapes, too.
Cover pie loosely with aluminum foil and “tent” halfway through baking to avoid burning crust for slow-cooking pies.

2009–2010 EOP: New Lesson Plans Encourage Students to Think Like Scientists

By Ashley DeVine, Staff Writer

Experimenting with worm goo, conducting a crime scene investigation, and observing physical changes with alka seltzer are just a few of the new lessons elementary school children will experience during the 2009–2010 NCI-Frederick Elementary Outreach Program (EOP). The program began in October and has 70 volunteers going to 10 elementary schools.

New Lesson Plans

Three new lesson plans are a part of this year's EOP. The new first grade lesson uses three experiments—worm goo, magic sand, and pH test strips/magic ink—to have the students draw, record, and discuss their observations. This lesson encourages students to describe what they see as accurately as possible, just as scientists do. The new third grade lesson compares chemical and physical changes as a way for students to seek better reasons for believing things other than “I just know.” Third-graders work with water gel, putty, alka seltzer, and a bouncing ball to demonstrate chemical and physical changes. The new lesson plan for fifth-graders is about constructing and sharing reasonable explanations for questions asked and has students involved in crime scene science. Students examine imitation blood samples, fibers, and fingerprints to figure out who tried to break in to their teacher's desk.

Volunteer Reactions

“The new lesson plans really seem to have captured the children's imagination. We have started a ‘CSI’-style lesson for the fifth grade where they have to determine who the suspect is in a fake crime using scientific tests and deductive reasoning. All the kids really took to the role of detectives,” said Andy Stephen, Ph.D., Advanced Technology Program. Dr. Stephen has volunteered with the EOP since 2001 and enjoys sharing his

love of science with the children he teaches. “This program is a wonderful opportunity for us in the scientific community to pass along our enthusiasm for science and impress that science can be exciting. Maybe after a visit by the EOP, some kids will be ‘bitten by the science bug’,” he said.

Robin Winkler-Pickett, Cancer and Inflammation Program, has volunteered for several years and believes “one of the greatest missions of NCI is to teach and help develop scientists.” She hopes that interacting with the children will lead some of them to choose careers in science. “The first session brought sheer enjoyment as we engaged, coaxed, and cheered on a group of 28 third-graders through four ‘experiments’ and tweaked their brains to come up with a few definitions for our lesson plan,” Ms. Winkler-Pickett said.

Joan Cmarik, Ph.D., Laboratory of Cancer Prevention, CCR, began volunteering five years ago when her daughter was in second grade. “I like sharing my enthusiasm for science and watching the excitement on the students' faces. I like helping with this program that brings unique opportunities to students in Frederick County classrooms,” she said.

Barbara Kending, Senior Program Coordinator, Biopharmaceutical Development Program, has volunteered for six years and is working with first-graders this year. “I believe the children are enjoying the new lesson more, due to the fact of having more hands-on experiments. Plus just having lots of fun and being able to take a goo worm home,” she said.

Still Time to Volunteer

Volunteers may sign up at any time and are required to volunteer a minimum of two days. “Please volunteer,” said Ms. Kending, “It is a feeling that you keep in your heart for a very long time.”



Lessons are planned and training can be completed the day of a lesson. Volunteers work with small groups of students (six to eight students at a time with one experiment).

To get involved, contact Julie Hartman, EOP coordinator, at 301-846-7338 or hartmanjb@mail.nih.gov. You may also find more information at the EOP web site, <http://web.ncifcrf.gov/campus/outreach/eop/default.asp>. ■



Keeping Fit

The Ronald H. Defelice Cup

"It's About Time We Turn This Around!"

By Nancy Parrish, Staff Writer

This was the call to action from assistant captain Dennis Dougherty to his SAIC-Frederick team before the fourth annual Ronald H. Defelice Cup, a golf tournament between NCI-Frederick and SAIC-Frederick.

And turn it around they did. On Columbus Day 2009, the SAIC-Frederick team was victorious over NCI-Frederick, winning by the widest point spread in tournament history, 11 to 7. Since the tournament's inception in 2005, NCI-Frederick has won the competition, and the trophy has remained in the office of NCI-Frederick Associate Director Craig Reynolds, Ph.D. Now, Larry Arthur, Ph.D., SAIC-Frederick Chief Executive Officer, has the honor of holding the trophy until the 2010 match next fall.

Most Valuable Player awards went to Andy Byrd, Ph.D., NCI, and Mr. Dougherty, SAIC-Frederick. Chris Hwang, NCI, won the Bob Moschel Sportsmanship Award, which is "granted to the individual who



Why are these men smiling? Dr. Larry Arthur (L), captain, and Dennis Dougherty, assistant captain of the SAIC-Frederick golf team, display the coveted Ronald H. Defelice cup and plaque, which will find places of honor in Dr. Arthur's office for the next year (or longer, they hope!).

demonstrates the kind of sportsmanship that was so well exhibited by [the late] Dr. Moschel," according to the tournament flyer.

The Ronald H. Defelice Cup was named in honor of the many contributions Mr.

Defelice made to the management and support operations of NCI-Frederick in his more than 40 years here. Mr. Defelice hits the ceremonial first drive of the tournament. ■

Feeling Fine in '09

Feeling Fine in '09 Winners

By Ashley DeVine, Staff Writer

August Winners



Miles Walked: John Maciolek, Vaccine Clinical Materials Program (VCMP)

Miles Run: Kelly Spore, Human Resources

Miles Biked: Stephen Forsha, Applied and Developmental Research (ADD)

September Winners

Miles Run: Autray Humphrey, ADD

Weight Lost: Marlene King, VCMP



Winners of the Year

Miles Walked

1. Wayne Helm, Facilities Maintenance and Engineering (FME)
2. Ann Heller, Financial Management
3. Terri McLellan, Laboratory Animal Sciences Program (LASP)



Miles Run

1. Beth Buckheit, Financial Management
2. William Adkins III, FME
3. John Carter, ADD



Miles Biked

1. Dwayne Neal, VCMP
2. John Beutler, Molecular Targets Development Program
3. Victoria Barron, Contract Planning and Administration



Weight Lost

1. Deborah Christ, Financial Management
2. Debra Gilchrist, Clinical Research Program
3. Debra Fitzgerald, LASP



Other Fitness Activities Completed

1. Terri McLellan, LASP
2. William Lonergan, FME
3. William Adkins III, FME



Thinking Green

Send Your Green Tip to Contracts and Acquisitions

By Lori Smith, Contracts and Acquisitions

Sandra Burkett won the first “Green Thinker” t-shirt for the SAIC-Frederick Purchasing Department’s new “Green Tip” Program. The Purchasing Department, part of the Contracts and Acquisitions Directorate, unveiled its new initiative at this year’s third annual SAIC-Frederick Green Vendor Show.

Each month, the Purchasing Department’s Green Committee reviews all green tips submitted, and a “Green Thinker” t-shirt is awarded to the employee submitting that month’s winning tip. You can view the winning green tips at <http://web.ncifcrf.gov/campus/als/green/default.asp>. The committee hopes to get NCI-Frederick employees to think “green.”

Ms. Burkett suggested that NCI-Frederick employees use rechargeable batteries, rather than regular batteries. Although the initial cost of a rechargeable battery can be greater than the cost of a regular battery, the savings over the life of the batteries is worth the initial cost. A rechargeable



Think green! The Purchasing Department’s Deborah Reckley (left) and Keifford Jackson stand behind some of the many recyclable office products as they show off the “green” tee shirts awarded at the monthly “Green Tips” contest.

AA battery can be recharged up to 1,000 times, which will reduce the purchases of additional batteries and a marked

reduction in the disposal of batteries, considered a hazardous product. The committee noted that using rechargeable batteries can be easily implemented with low impact cost.

The committee received several useful tips such as promoting electronic signatures, being able to view paystubs online, and using biodegradable products in the Discovery Café.

The Green Tip Program is just one of the ways the Purchasing Department promotes the SAIC-Frederick “Purchasing Green” Program. Some of the other areas include energy star compliance for computers, electronic signature implementation, and a

significant increase in the use of the P-Card program within the department to streamline processes.

As we begin the 2010 year, we encourage all of you to continue to think green and continue to submit your green tips to smithlori@mail.nih.gov. A new winner will be chosen every month through 2010. ■



Recycling at NCI-Frederick

The NCI Green Team and Waste Management celebrated America Recycles Day on November 16th. Visitors could see what recycled-content items are purchased at NCI-Frederick, and could even recycle products while they visited: the usual cans and paper, as well as eyeglasses, batteries, old cell phones and other work items. ■



Play and Learning Station



PALS Halloween Parade

The Play and Learning Station ghosts and goblins traveled around NCI-Frederick for their annual Halloween parade on October 30, collecting tons of tasty treats. ■



Halloween Costume Contest

The Employee Recreation Council sponsored its eleventh annual Halloween Costume Contest on October 30. Prizes were awarded to individuals in the following categories:

Most Bootiful

First Place Debbie Dobbe, FME
 Second Place Allison Hazen, ADD

Most Spooktacular

First Place Shawn Brown, ADD
 Second Place Gerald DeGray, ADD
 Third Place Chris Remacle, ISP

Most Creative

First Place Dante Tedaldi, FME
 Second Place Roxanne Angell, ISP
 Third Place Carl Probert, FME ■



Third Annual Halloween Photo Contest



The “bumblebee” dog echoes his mistress’s smile, looking just as happy as she is to be celebrating Halloween with friends and family. Picture submitted by Roxanne Angell, Advanced Biomedical Computing Center, Information Systems Program Directorate.

Another happy party-goer at the Angell celebration was “Fat Bastard,” a popular character from several Austin Powers movies. Picture submitted by Roxanne Angell. ■



New Faces at NCI-Frederick

Ninety-six people joined our facility in July, August, and September 2009.

The National Cancer Institute welcomes...

Rachel **Acuna** ■ Augustina **Addison** ■ Colleen **Annesley** ■ Amber **Arthur** ■ Nathan **Brown** ■ Ashley **Burg** ■ Lida **Cheng** ■ Rajanikant **Chittela** ■ Sultan **Ciftci** ■ Stanimir **Dulev** ■ Timo **Gaiser** ■ Kshitij **Gupta** ■ Miranda **Hanson** ■ Yizhou **He** ■ Sanaz **Jansen** ■ Jaideep **Karamchandani** ■ Jeffrey **Knight** ■ Calvin **Lee** ■ Ying **Liu** ■ Jingjing **Ma** ■ Francisco Bautista **Malagon** ■ Adelle **McFarland** ■ Zachary **Miknis** ■ Michelle **Mitchell** ■ Tyler **Morrison** ■ Ashley **Munchel** ■ Michael **Nickerson** ■ Patrick **North** ■ Lihui **Ou** ■ Jason **Pitt** ■ Jia **Qi** ■ Gagan **Raju** ■ Anthony **Rizzo** ■ Amogh **Sivarapatna** ■ Ryuta **Tobe** ■ Darawalee **Wangsa** ■ Bo **Xiao** ■ Ji **Zheng**



Ashley Burg

Charles River Frederick welcomes...

Sara **Rippeon** ■ Grace **Routhier**



Zachary Miknis

SAIC-Frederick welcomes...

Tun **Aung** ■ Heather **Bradette** ■ Braulio **Cabral** ■ Quan **Chen** ■ Paul **Courtney** ■ Rachael **Cris** ■ Michael **Cullen** ■ Claudia **Derse-Anthony** ■ Sui **Dim** ■ Manish **Dixit** ■ Tamika **Dunn** ■ Heather **Edwards** ■ Brian **Emrick** ■ Reagan **Faulkingham** ■ Stephen **Forsha** ■ Marylois **Gannon-Miller** ■ Stacey **Gates** ■ Kui **Gong** ■ Theresa **Gratiano** ■ Xingpei **Hao** ■ Autray **Humphrey** ■ Pen **Iang** ■ Joseph **Ivanic** ■ Larry **Kees, Jr.** ■ Rachel **Kelly Beach** ■ Alexander **Konev** ■ Bertuol **Kuidja Yomba** ■ Petra **Lenz** ■ Roger **Lewis** ■ Hong Yun **Li** ■ Lori **Lydard** ■ Tamika **Magee** ■ Michelle **Manning** ■ Jacqueline **Melby** ■ Eric **Morfin** ■ Bethanie **Morrison** ■ Thinzar **Myint** ■ Thomas **Norton** ■ Alex **Ray** ■ Christopher **Remacle** ■ Lauri **Rimorin** ■ Jerome **Schlomer** ■ William **Sheffield** ■ Herbert **Smith** ■ Betty **Stitely** ■ Lal **Thanzaua** ■ Tomas **Vilimas** ■ Kirsta **Waldon Allen** ■ Jeananne **Ware** ■ Ling **Wei** ■ James **Whitt** ■ Wayne **Wiles** ■ Ilmiya **Yarullina-Casey** ■ Yuko **Yuki** ■ Huizhi **Zhou** ■ Candice **Zodrow** ■



Anthony Rizzo



William Sheffield

SAIC-Frederick Holds 13th Annual Awards Program

By Maritta Perry Grau, Staff Writer

Nearly all of SAIC-Frederick's more than 1,800 employees attended the November annual awards event at Lynfield Complex near Frederick.

Perhaps the most prestigious award is the **Norman P. Salzman Mentoring Award**, which this year was presented to Dr. Michael Piatak, Jr., senior principal scientist and head of the Quantitative Molecular Diagnostics Core, AIDS and Cancer Virus Program Directorate.

This year's **President's Award** went to the Advanced Technology Research Facility team of Mitzi Guarino, Bob Fitzsimmons, both, Contract Planning and Administration; John Trifone, director, Contracts and Acquisitions; and Eric Hazard, SAIC Corporate, for their work in making the ATRF a reality.

Darlene Rosmarino, Human Resources, and Butch Hopkins, Protein Expression Laboratory, were recognized with **Distinguished Career Service Awards**.

The following individuals and groups also received awards:

Outstanding Achievement Awards

Individuals: Ms. Guarino, Daniel Logsdon, William Utermahlen, Dr. Rob Gorelick, and Dr. Meili Zhang

Teams: ADRD Biomarker Team (Dr. Ralph Parchment, Dr. Robert Kinders, Dr. Jay Ji, Dr. Yiping Zhang; and Sonny Kim); and the TRAIL Sensitizers HTS Team (Heidi Bokesch, Alan Brooks, Dr. Curt Henrich, Dr. Tom Sayers)

Special Achievement Awards

Individuals: Dr. Parchment and Dr. Cheryl Winkler

Teams: AIDS and Cancer Virus Program Viral Oncology Team (Wendell Miley and Vickie Marshall); Building 376 Renovation Team (Talal Khalil, John Bell, Len Wrona, and Larry Pawlik); and the ATP Sequencing Facility (Bao Tran, Michele Mehaffey, Castle Raley, Yongmei Zhao, Yuliya Kriga, Hongling Liao, John Orzechowski, Kim Kieffer, and Mary Lou Siegle)

Customer Relations Awards

Individuals: Susan Strobl, Ming Zhou
Team: OHS team (Alberta Peugeot, Sarah Hooper, Maria Mullen, Mary Stewart, Paula Mathis, Coleen Tabler, Will Sheffield, Carolyn Cable, Kandy Rahochik, Kelly Hutzell, Dr. Robert Thomas, and Mary Carol Fleming)



Dr. Larry Arthur, CEO, with, left: Norman P. Salzman Mentoring Award winner, Dr. Michael Piatak; and right: winners of the President's Award—Mitzi Guarino, Bob Fitzsimmons, and John Trifone.

Cost Savings Award

Individuals: Tim Potter and Teresa Stitely
Team: Financial Analysis Team (Dan Fox and John Shannon McWilliams)

Safety Award

Individual: Craig Driver
Team: Facilities Maintenance and Engineering Safety (Bill Lonergan and Dr. Dante Tedaldi)



Double Your Reach Campaign

By Maritta Perry Grau, Staff Writer

From July through early December, SAIC-Frederick staffers were stepping up to the challenge to "lend a helping hand," as Chief Executive Officer Larry Arthur, PhD, said. The company promised its employees to match, dollar for dollar—until the company had matched up to \$50,000—any contributions they made to qualified organizations through payroll deductions. The deductions for the "Double Your Reach" campaign begin in January.

In the past, deductions have been taken for United Way, which then distributes the monies to all the organizations on its list. Studies have shown that employees are more likely to contribute when they have a choice of several charitable organizations to which they can designate their funds. So, first, the company surveyed employees, asking them to identify worthy organizations to which they'd like to contribute, and then narrowed down the list to seven. To help with their decisions, employees were able to attend a charity fair in October, at which these organizations presented literature and answered questions. The seven nonprofits included United Way of Frederick County, American Cancer Society, Chesapeake Bay Foundation, Frederick Rescue Mission, Frederick Community College Foundation, Habitat for Humanity, and Heartly House.

"The seven were chosen following a companywide survey of our staff that revealed an interest in having more organizations from which to choose in our payroll giving program. Respondents also made general and specific suggestions about which organizations to include on our list," Dr. Arthur said.

Dr. Arthur commented, "This new approach will bring together employee giving and company giving to increase the strategic impact in areas of the community that are important to us. In addition to the matching funds, SAIC-Frederick will continue to make its contributions to local charities and nonprofit organizations." ■

2009 "NCI-Frederick READS" Poster Celebrities Announced

By Robin Meckley, Contributing Writer, WISCO

The Scientific Library honored its new NCI-Frederick READS Poster celebrities in October during the second annual NCI-Frederick READS Posters Reception.

In 1985 the American Library Association (ALA) began to encourage reading with its popular READ posters. Through the years, ALA has featured actors, sports figures, musicians, and other celebrities. Bill Cosby was the first celebrity chosen. Each celebrity appears on a poster with his/her favorite book.

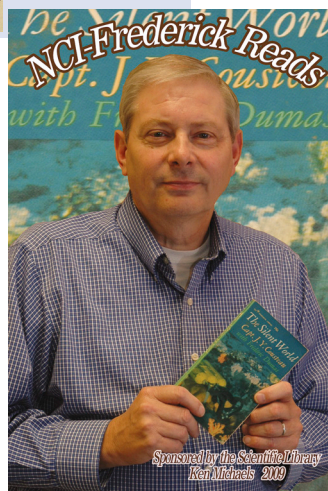
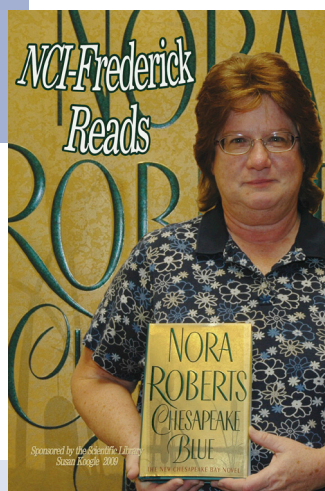
The goal of the NCI-Frederick READS Posters program is to promote reading for the sheer enjoyment of it. The READ celebrities, one from each contractor and one from NCI, are nominated through various methods, and selected by a special library committee.

Susan Koogle, who selected the book *Chesapeake Blue* by Nora Roberts, feels "everyone should have a good book to relax and escape to. Nora Roberts uses many local towns in Frederick and Washington County... as settings for her novels."

Sher Hendrickson's choice of *The Beak of the Finch* by Jonathan Weiner "brings Darwin's Galapagos finches to us as proof of concepts of evolution, not by simply recounting Darwin's observations, but instead by following Peter and Rosemary Grant's meticulous studies of the finches over the past 30 years."

Ken Michaels gave some thought to his choice of *The Silent World* by Jacques Yves Cousteau. "In thinking about the

definition of 'favorite book,' I finally decided that a favorite book ought to be one that had an impact upon the reader. When I first read this book...it opened my eyes to the underwater world and the adventures to be had as a SCUBA diver."



The 2009 celebrities are clockwise, from top left: Sher Hendrickson, NCI-Frederick; Susan Koogle, Data Management Services; Ken Michaels, SAIC-Frederick; and Virginia (Ginny) Greene, Charles River Frederick.

Ginny Greene says that "with so many negative forces in the world today, I try to read books that are more positive, full of faith, hope, and love. This book about the Amish and their traditions, *A Gift of*

Grace by Amy Clipston, has won my heart..."

The posters of the 2009 NCI-Frederick READS celebrities for 2009 are now on display in the library, along with the posters of the four celebrities from 2008: Wayne Duncan, Data Management Services; Patricia Fritz, Charles River Frederick; Larry Keefer, NCI-Frederick; and Wei Tan, SAIC-Frederick. We invite you to stop by the library in Building 549 and take a look at these beautiful works of art.

World AIDS Day

World AIDS Day is observed every year on December 1. "The World Health Organization established World AIDS Day in 1988. World AIDS Day provides governments, national AIDS programs, faith organizations, community organizations, and individuals with an opportunity to raise awareness and focus attention on the global AIDS epidemic" (<http://www.hhs.gov/aidsawarenessdays/days/world/index.html>).

Each year, the Scientific Library observes World AIDS Day by offering some kind of program, such as "Science in the Cinema," special invited speakers, documentaries, or book discussions. Last year we even created our own AIDS quilt! Although this year's program is over, we would like everyone to be aware of the materials in the library's collection that can be checked out and used at home. Movies and feature-length documentaries in the library's collection include *Life Support*; *And the Band Played On*; *Philadelphia*; *Longtime Companion*; *Common Threads: The Stories from the Quilt*; and *The Cure*. Documentaries include *The Age of AIDS*; *AIDS: Window on Infectious Disease*; *Surviving AIDS*; and *Nothing More to Worry About*. There are also many books available, including titles from the Reading Diversions collection, such as *Virus: The Co-Discoverer of HIV Tracks Its Rampage and Charts the Future*; *The River: A Journey to the Source of HIV and AIDS*; *The Invisible Cure: Why We Are Losing the Fight Against AIDS in*

Wilson Information Services Corporation (WISCO)

Africa; And the Band Played On; and Big Shot: Passion, Politics, and the Struggle for an AIDS Vaccine. You can view the library's entire collection by searching "aids" or "hiv" in the library's online catalog at <http://www-library.ncifcrf.gov/opacmenu.aspx>, or you can stop by the library in Building 549 and browse available materials.

Book Swaps

Every year for 10 years, the Scientific Library has sponsored a book swap in October. What began as a small-scale activity has become a much-anticipated event at NCI-Frederick. For one month prior to the kick-off day, the staff of the library collects gently used paperback and hardback books, DVDs, CDs, and other media. People who donate materials receive cards indicating how many items they have donated. During the month of collecting, the library staff sorts and organizes the materials into categories (this year, we collected close to 4,000 items!). Then, on "Opening Day," the fun begins! Everyone with a Book Swap card can come to the swap and take "new" items home. They can take as many items home as they originally donated. After "Opening Day," all the materials are moved into the Scientific Library, where they stay for another month. Sometime during that month, the books become available to anyone, even if they never donated any books. This annual event is a wonderful, campuswide opportunity for avid readers to find "new" reading material.

The Book Swap is so popular that in 2008, the library staff decided to offer a second event—a Children's Book Swap. This event is held during Take Your Child to Work Day (TYCTWD) in the summer. The staff collects books before TYCTWD and on the day of the swap. Children can bring in books they want

to swap or they can take books that are already available. This event has been a hit both years it has been held, so the library staff plans to offer it annually.

Although both Book Swaps are over



for 2009, the library staff would like everyone to remember that the swaps will be held again in 2010. You can begin now to collect all those books, including children's materials, and have them ready to bring in when the events are announced. Due to space constraints, the library staff cannot accept any donations until each event approaches, so please wait for announcements before bringing in your materials.

"Use It or Lose It: Keep Your Brain Healthy and Fit"

The Scientific Library, together with OHS and the Employee Diversity Team, offered a REWARDS program in October, titled "Use It or Lose It – Keep Your Brain Healthy and Fit." During this month-long event, we showed the DVD *Wordplay*, a documentary about crossword puzzles and the many different kinds of people who do them. We showed a similar DVD about Scrabble, titled *Scrabylon*. We showed an educational DVD from PBS titled *The Brain Fitness Program*, which explained the concept of neuroplasticity—the ability of the brain to change and adapt and even rewire itself. We also discussed the fascinating book *Think Smart: A Neuroscientist's Prescription for Improving Your Brain's Performance*, by Richard Restak. During the course of this program we offered "Game Sessions" in the café where people could eat their lunches while playing board games such as chess, checkers, Scrabble, and Blokus. We also set up jigsaw puzzles in the library so people could challenge their spatial skills during lunch and before and after work. Three of these puzzles were completed and two other puzzles were in progress by the end of the month. The library also purchased three books in support of the healthy brain program: *The Brain Power Cookbook*, *Train Your Brain More*, and *365 Ways to Boost Your Brain Power*. All of the books and DVDs can be checked out of the Scientific Library's collection. ■

In Memoriam: David Derse

In Memoriam

David Daniel Derse, Ph.D.



David Derse, head of the Retrovirus Gene Expression Section in the HIV Drug Resistance Program, died October 9 of liver cancer. Born in Los Angeles, California, on December

22, 1949, Dr. Derse earned his Ph.D. in 1982 from the State University of New York at Buffalo, studying inhibitors of herpesvirus and cellular DNA polymerases in the laboratory of Dr. Yung-Chi Cheng. He conducted postdoctoral research on bovine leukemia virus gene regulation with Dr. James Casey at the Louisiana State University Medical Center.

After joining the National Cancer Institute in 1986 as a senior staff fellow,

Dr. Derse continued research on the Tax and Rex proteins encoded by deltaretroviruses. In 1991, he became a tenured senior investigator and extended his research into comparative biochemical analyses of lentivirus Tat and Rev proteins.

Dr. Derse joined the HIV Drug Resistance Program in 2004 as head of the Retrovirus Gene Expression Section. He was also an adjunct professor in the Graduate Program in Genetics at George Washington University in Washington, D.C., and served on the Editorial Boards of *Virology* and *Retrovirology*, and on the Executive Committee of the Center of Excellence in HIV/AIDS and Cancer Virology, Center for Cancer Research.

During his 25 years at the National Cancer Institute, he investigated the molecular mechanisms of retrovirus infection and replication, concentrating most recently on the human viruses HIV-1 and HTLV-1. In 2007, Dr. Derse and his research team discovered how HTLV-1 evades the body's natural defenses to fight off infection, a finding that may eventually lead to improved

antiviral therapies and new strategies for preventing some types of cancer.

Dr. Derse's scientific intelligence was grounded in a great love of the natural world and a kindhearted spirit. Soft-spoken and reserved by nature, he also enjoyed a whimsical sense of humor. At the heart of his character was his admiration for fellow scientists who were both accomplished in their work and generous, positive, and authentic in the wholeness of their lives.

He found great joy in his time with his grandsons, and he enjoyed running, hiking, fly-fishing, reading, and travel. He was proud to be a native Californian, and that showed in his appreciation for California artists, scenic places, and iconic images.

A longtime resident of Frederick, Dr. Derse is survived by his wife, Hye-Kyung (Kate) Chung; son and daughter-in-law, James and Carrie Derse, and their two sons, Lucas and Gideon; his sister, Kathleen Ruccione, and her son, Daniel; brother, Leonard Derse; and members of the extended Derse, Chung, and Lucas families. ■

Web Sites of Note

By Ashley DeVine, Staff Writer

Throughout our newsletter, you'll find web sites that provide you with more information than we can put in our articles. In addition, many days, weeks, and months are devoted to the recognition of particular health care issues. We've selected a few dates that seem most pertinent to NCI-Frederick. We've also listed some web sites to help you improve your health through exercise and nutrition.

January

Cervical Health Awareness Month: <http://www.nccc-online.org/awareness.html>

National Blood Donor Month: http://www.aabb.org/Content/Donate_Blood/Donate_Blood_Public_Education_Initiatives/National_Blood_Donor_Month/nbdm.htm

February

National Wear Red Day: February 5: <http://www.nhlbi.nih.gov/educational/hearttruth/materials/wear-red-toolkit.htm>

National Cancer Prevention Month: <http://www.aicr.org/site/News2?page=NewsArticle&id=14377>

National Donor Day: February 14: http://www.organdonor.gov/get_involved/nationaldonorday.htm

Health-related Web Sites

Exercise and Physical Fitness from MedlinePlus: <http://www.nlm.nih.gov/medlineplus/exerciseandphysicalfitness.html>

CDC Division of Nutrition, Physical Activity, and Obesity: <http://www.cdc.gov/nccdphp/dnpao/index.html>

USDA: Food Pyramid Guidelines: <http://www.mypyramid.gov/>

Harvard School of Public Health: Staying Active – The Nutrition Source:

<http://www.hsph.harvard.edu/nutritionsource/staying-active/>

It's All About the Message

By Ken Michaels, Staff Writer

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

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

I'd like to address the third of these principles: It's all about the message. What does that mean? Essentially, it means our fascination with tools like PowerPoint might interfere with keeping our focus where it should really be—on the topic itself.

Mass media expert Marshall McLuhan, in his 1964 masterpiece *Understanding Media*, famously declared, “the medium is the message.” He went on to explain that the assimilation of any new communication medium, in itself, has an impact on those whom it affects; that is to say, the presence of radio, television, the Internet, twitter™—the very existence of these various communication media—changes our lives. I do not dispute his premise; in fact, I find it both interesting and meaningful. But in the context of preparing to give an oral presentation, I must contend that the *message* is the message.

More than once I've heard said something like, “I'm doing a PowerPoint next week on [topic].” And then there's, “[Name] just showed me how to make a word in a PowerPoint spin around. Cool! I'm going to use that in my next talk!”

Both of these seem to me to have the focus in the wrong place. Now please don't misunderstand: I don't mean to say that we shouldn't be concerned about the presentation itself. We should. A good



presenter takes care to prepare effective visual aids, when needed, to illustrate key points and concepts. But crafting the visuals should be “Phase Two” of preparation. “Phase One” should be crafting the message.

First, line up the first four Ws: Who is the audience? Why are you talking to them? When, and Where? And now let's work on the fifth: What do you plan to say to them? I think too often we get the steps out of sequence, sometimes even going straight to PowerPoint to make slides before really thinking about the message. Think of giving a presentation as similar to telling a story. You wouldn't start talking before knowing what the point of the story was, would you? Start by asking what is it that—when the presentation is over—you want the audience to know, to know how to do, to understand, or to feel? The desired outcome informs the message itself.

So, first we get clear on what story we're going to tell, and then comes “Phase Two”: deciding how we're going to tell it. If my memory serves me correctly, we communicated before PowerPoint, and even before 35mm

slides and overhead transparencies. It's my feeling that unless your story simply can't be told without PowerPoint, you ought to consider other options. Perhaps a live demonstration of a technique or procedure will tell the story better. Or maybe motion media is really needed, or audio, or a combination of audio and video. Or perhaps a printed handout or workbook will do the trick. Or possibly you might simply stand up and talk and use no visuals at all. In any case, the medium you decide to use should be the one that gets the message across most effectively.

I think preoccupation with “what I can make PowerPoint do” can, and sometimes does, get in the way of crafting a powerful and memorable presentation. Your real objective, after all, should not be to impress your audience with your mastery of flashy technology. It's not about “doing a PowerPoint” and it's not about exhibiting a parade of showy visuals. An effective presentation is all about the message. ■

Upcoming Events and Dates to Note

December 25

Christmas Day; NCI-Frederick closed

January 1

New Year's Day; NCI-Frederick closed

January 7

2010 NCI Intramural Scientific Investigators Retreat

January 22

Poster Puzzler entries due

January 18

Martin Luther King, Jr. Day; NCI-Frederick closed

February 23

Registration opens for
Spring Research Festival 2010

May 5 and 6

Spring Research Festival 2010

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/postdoctoral

SAIC-Frederick, Inc.
www.saic-frederick.com

Wilson Information Services Corporation
www-library.ncifcrf.gov

NCI-Frederick Programs

NCI-Frederick/Ft. Detrick Fitness Challenge 2009
saic.ncifcrf.gov/fitnesschallenge/

NCI-Frederick Suggestion Committees
web.ncifcrf.gov/campus/committees/

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

The Poster Staff

Executive Editor Paul Miller ■ **Associate Editor** Ken Michaels ■ **Managing Editor** Maritta Grau ■ **Co-Editor** Nancy Parrish ■ **Editorial Assistant** Ashley DeVine ■ **Production Editor** Kathy Green ■ **Lead Designer** Tammy Schroyer ■ **Photography Editors** Jonathan Summers, Marti Welch

Contributing Editors

Administrative Resource Center Erin King, Codi Miller ■ **Charles River Frederick** Cliff Hubbard ■ **Community Outreach** Barbara Birnman, Julie Hartman ■ **Data Management Services** Stephanie Halling ■ **Environment, Health, and Safety** Siobhan Tierney ■ **Facilities Maintenance and Engineering** Deborah Dobbe ■ **Fisher BioServices** Kathleen Groover ■ **NCI-Frederick Employee Diversity Team** Paul Miller ■ **Occupational Health Services** Alberta Peugeot ■ **SAIC-Frederick, Inc.** Frank Blanchard ■ **Science Today** Dianna Conrad ■ **Wilson Information Services Corporation** Sue Wilson, Robin Meckley

Published four times a year by Scientific Publications, Graphics & Media for the National Cancer Institute at Frederick, Frederick, MD 21702.

The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

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

Comments or suggestions for *The Poster* may be directed to poster@ncifcrf.gov.

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

web.ncifcrf.gov/ThePoster

200118



Weather Advisory

You peer out the bedroom window and see softly falling snow or the gleam of ice. Is the base closed? Here's how to find out. Call the Fort Detrick Telenews (301-619-7611) or listen to local radio/television stations for information.

Closed or Delayed Opening

Remember: When Fort Detrick is closed, NCI-Frederick is also closed; when Fort Detrick has a delayed opening, NCI-Frederick has a delayed opening. NCI-Frederick does not follow weather closing or delayed opening advisories for the NIH-Bethesda campus or the Washington metropolitan area.

Early Dismissal

For early dismissal, NCI-Frederick operates independently of Fort Detrick; therefore, your supervisor will notify you if NCI-Frederick closes during working hours.

Telephone Numbers

Recorded weather line 301-619-7611
Fort Detrick toll-free number 1-800-256-7621, *8, 37611#
TDD 301-619-2293

Internet

Fort Detrick's home page: <http://www.detrick.army.mil/>
Weather information pops up automatically.

Radio/TV

Frederick, MD

WTLP FM 103.9
WFMD FM 930
WFRE FM 99.9
WYPF FM 88.1
WWFD AM 820
WAFY FM 103.1
WWEG FM 106.9

Hagerstown, MD

WAYZ FM 104.7
WJEJ AM 1240
WARK AM 1490
WDLD FM 96.7
WHAG NBC 25 (TV)

Baltimore, MD

WBAL AM 1090
WIYY FM 97.9
WYPR FM 88.1
WPOC FM 93.1
WCBM AM 680
WLIF FM 101.9
WWMX FM 106.5
WRBS FM 95.1

WERQ

FM 92.3

WMAR

ABC2 (TV)

WBAL

NBC 11 (TV)

WJZ

CBS13 (TV)

WBFF

FOX45 (TV)

Thurmont, MD

WTHU AM 1450

Brunswick, MD

WTRI AM 1520

Williamsport, MD

WCRH FM 90.5

WICL FM 95.9

Chambersburg, PA

WIKZ FM 95.1

WCHA AM 800

Gettysburg, PA

WGET AM 1320

WGTY FM 107.7

Greencastle, PA

WQCM FM 94.3

WPPT FM 92.1

WBHB FM 101.5

Winchester, VA

WINC FM 92.5

Martinsburg, WV

WEPM AM 1340

WRNR AM 740

WLTF FM 97.5 ■



Weather Advisory

Winter Driving Safety Tips

Driving in cold weather presents special weather-related driving hazards. As you drive your vehicle this winter, here are some winter driving tips to keep in mind:

- Stopping distance on a snowy/icy surface can be up to 10 times that of a dry road, so drive with extra caution on slick or snowy surfaces.
- Turn your headlights on during periods of low visibility.
- Wear your safety belts. Secure children under age four in child safety seats.
- Allow extra time for winter trips. If you are running late, do not rush.
- It is a Maryland law that all windows and mirrors on vehicles be cleared of snow and ice. Do not go down the road with only a peephole to see through. Fort Detrick police will cite this infraction.
- Clear all snow off the hood and roof of a vehicle so snow does not blow onto the windshield or rear window and obscure your driving vision.
- It is a good idea to carry an emergency kit that may include an ice scraper and brush, jumper cables, a shovel, a tow chain, tire chains, a blanket, gloves, a flashlight, and rock salt or kitty litter for traction.



Make sure that your vehicle is mechanically sound. The following checklist will help to ensure a safe trip each day this winter:

- Cold weather is especially demanding on batteries. Check and replace your battery if needed.
- Install all-weather tires or snow tires and check to see that tire pressure meets the recommendations of your owner's manual.
- Test your antifreeze against the recommendations of your owner's manual.
- Check the integrity of your exhaust system for leaks into the passenger area.
- Be sure your wiper blades are in good condition.

These tips have been provided courtesy of Environment, Health, and Safety (EHS). If you have any questions or would like more information, contact EHS at 301-846-1451. ■