

PADIS Lab Develops New Method for Analyzing Drug Therapies

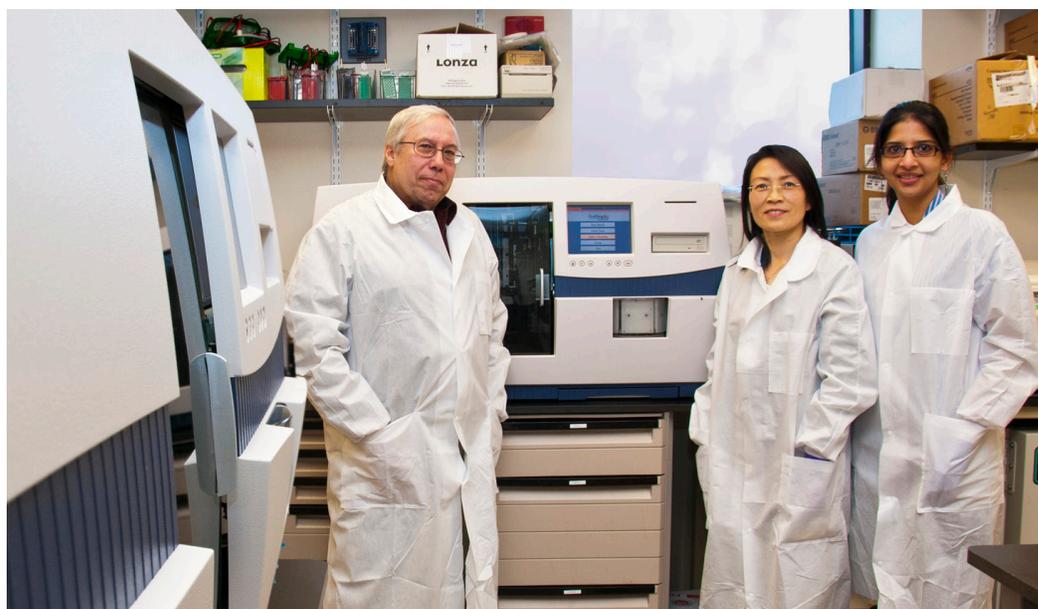
By Debra Long Priel, Contributing Writer

Researchers in the Applied/Developmental Research Directorate have recently been developing a new way to assess the effects of clinical trial drugs on the human body.

Robert Kinders, Ph.D., and his team in the Pharmacodynamic Assay Development and Implementation Section (PADIS) of the Laboratory of Human Toxicology and

by biopsy is limited, when available, to two biopsies per patient in clinical trials.

Kinders believes that pharmacodynamic sampling should be similar to pharmacokinetic analyses, in which 10–12 measurements of plasma drug and metabolite levels are typically collected to determine what happens to the drug once it is inside the human body. He notes that, to better



PADIS researchers are developing assays that are compatible with state-of-the-art technologies to assess clinical trial drugs. The new assays make it possible to study tumor cells circulating in the blood, which may eliminate the need for tumor biopsies. From left: Robert Kinders, Lihua Wang, and Priya Balasubramanian.

Pharmacology, are studying and utilizing cells known as circulating tumor cells (CTCs), which have detached from a primary tumor and circulate in the blood.

Pharmacodynamic researchers face unique challenges when developing assays to identify biomarkers for cancer, according to Kinders. “Pharmacodynamics examines the intensity and duration of a drug’s effects, which are a function of the drug dose and drug concentration at the effect site (tumor),” he said. “The difficulty encountered is that the current practice in drug development focuses on a drug’s toxic effects and the drug concentration in the blood, not the tumor.”

Due to the risks in obtaining biopsies, he said, examining and monitoring the tumor

describe the peak and duration of effect after drug administration, particularly in combination therapy trials, pharmacodynamic sampling should be equally dense.

Focus Shifted to Circulating Tumor Cells

The PADIS team, which includes Lihua Wang, Ph.D., and Priya Balasubramanian, Ph.D., uses immunomagnetic capture of CTCs from whole blood specimens to identify cells, using a semi-automated fluorescent microscope that images the cells in four channels. These methods are particularly useful when examining cancers of the lung, breast, colon, and prostate, Kinders said.

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Frederick National Laboratory for Cancer Research: Changing More than a Name

As you are undoubtedly aware, on March 9, Harold Varmus, M.D., director of NCI,



David Heimbrook, Ph.D.

announced that “the organization and facilities which we currently refer to as NCI-Frederick will be formally named and known as the Frederick National Laboratory for Cancer

Research (FNLCR), or Frederick National Lab for short.”

This important change was not done on an impulse. In fact, it is the culmination of several years of discussions, in large part championed by our former CEO, Larry Arthur, Ph.D. Our facility has undergone several name changes since its creation (see box). A key component of this discussion is to more effectively project the importance of the Federally Funded Research and Development Center and associated laboratories as a critical national resource in the fight against cancer.

We Can Have a Greater Impact through Our Work

There is a growing awareness, cultivated under Dr. Varmus’ leadership, that we can have greater impact on cancer research,

diagnostics, and drug discovery and development. The change in name is only the most apparent element of these efforts. For example, a committee comprising NCI and industrial and academic leaders in cancer research and drug discovery has been charged by Dr. Varmus with developing ideas on the projects and initiatives that can enhance our impact on the cancer research community. In addition, the imminent opening of the Advanced Technology Research Facility at Riverside Research Park provides “bricks and mortar” evidence of NCI’s commitment to external partnerships—leveraging the know-how we’ve developed with and for NCI.

This capability should soon be enhanced by the creation of “Contractor CRADA” authority for SAIC-Frederick, enabling us to enter into direct collaborative research and development agreements (CRADAs) with external academic and industrial partners. Contractor CRADAs will enhance access to our science and people by streamlining paperwork and providing enhanced transparency on the partners’ access to any joint inventions that might emerge from the collaboration. Just to be clear, our first and foremost mission is to provide direct support to NCI—but this knowledge can help others, as well.

You Can Help

You can help in this effort to enhance our impact. If you are a scientist, you should always be on the lookout for potential scientific partnerships. If you come across an opportunity, pass it along to your supervisor, so directorate heads can inform our business development office (led by David Hoekzema). We are also expanding our opportunities for collaboration through the Visiting Scholars Program (see page 3).

But, whether you are a scientist or not, when a friend, colleague, relative, or neighbor asks you, “What happens over there at Frederick?”, make sure that each person understands the growing importance of the Frederick National Laboratory to the cancer research community. ❖

David Heimbrook, Ph.D.
Chief Executive Officer of the Operations and Technical Support Contract,
SAIC-Frederick, Inc.

Our Facility Names

1971–1982

NCI Frederick Cancer Research Center

1983–1990

Frederick Cancer Research Facility

1990–2001

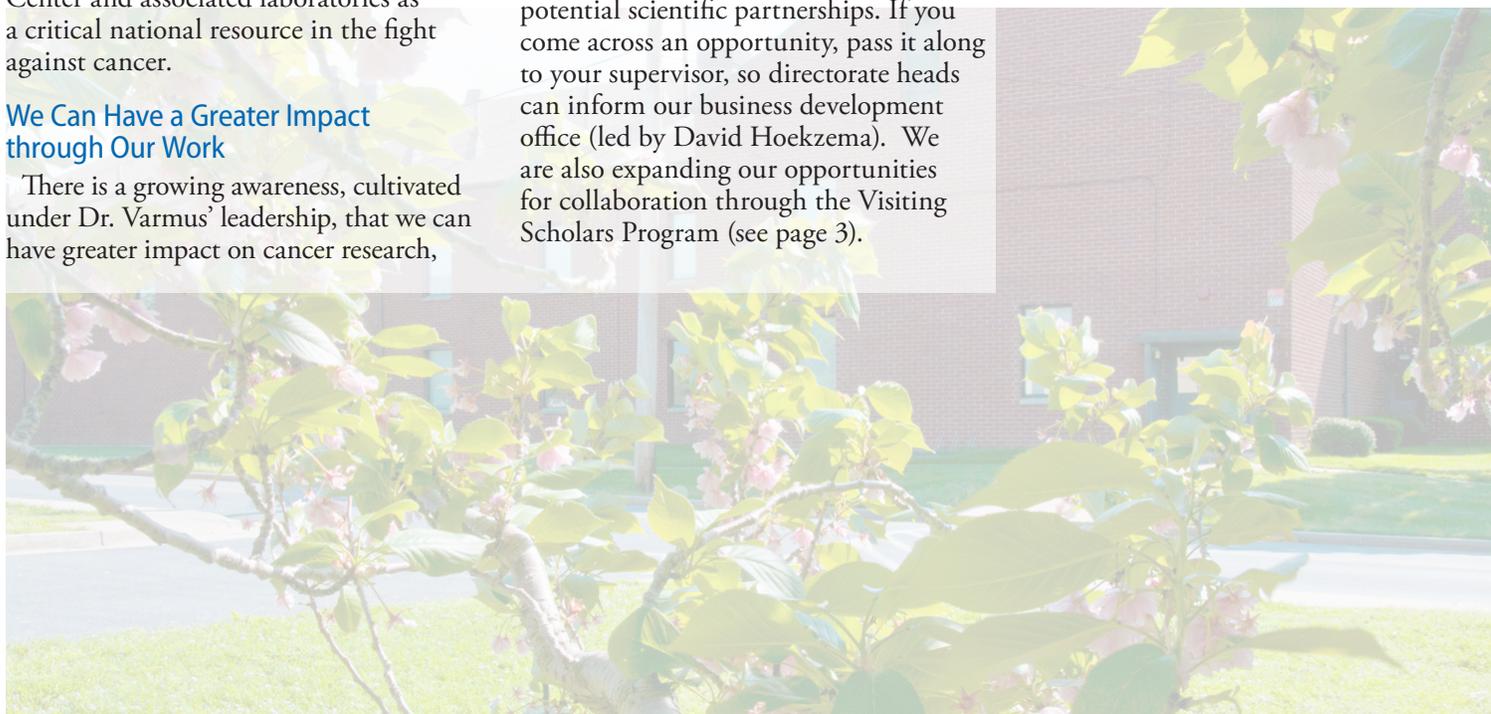
Frederick Cancer Research and Development Center

2001–2012

National Cancer Institute at Frederick

2012

Frederick National Laboratory for Cancer Research



NEW

Visiting Scholars Program

at the Frederick National Laboratory for Cancer Research



New Visiting Scholars Program to Attract Exceptional Scientists

By Nancy Parrish, Staff Writer

The Frederick National Laboratory for Cancer Research announced the launch this month of the Visiting Scholars Program (VSP), a new program to attract scientists from other institutes, academia, or industry to the laboratories at Frederick to participate in collaborations related to cancer and AIDS research.

“We are pleased to offer a unique, residency experience at the only federal national laboratory in the United States devoted exclusively to biomedical research,” said Debonny Shoaf, Ph.D., VSP program manager. “Our goal is to attract the best and the brightest to work side by side with the world-class scientists in our laboratories.”

VSP offers scientists across multiple disciplines access to Frederick National Laboratory’s cutting-edge technologies in well-defined research studies that may lead to new approaches for diagnosing and treating cancer and AIDS. VSP also serves the needs of

other programs that bring researchers to the Frederick National Laboratory on a temporary basis.

Visiting scholars will pursue a line of investigation consistent with the mission of the National Cancer Institute, and focused on priorities of the Frederick National Laboratory. Research studies may address long-standing questions that

Our goal is to attract the best and the brightest to work side by side with the world-class scientists in our laboratories.

— Debonny Shoaf, Program Manager

have impeded progress against cancer and AIDS, or novel approaches, such as those raised by the NCI director’s Provocative Questions Project (<http://provocativequestions.nci.nih.gov>).

Call for Applicants: Deadline Is May 11

Invitations to submit an expression of interest are being extended nationally and internationally to prospective visiting scholars. Applications are being accepted for the program until May 11, so that visiting scholars may begin the Frederick residency as early as the last quarter of 2012.

If you have colleagues who you think might be interested, or who might know someone who is interested, please urge them to visit the VSP website (<http://web.ncifcrf.gov/VisitingScholar>), where they will find complete descriptions of the current VSP opportunities and instructions for submitting an application. Inquiries may be e-mailed to FrederickVisitingScholar@mail.nih.gov. ❖

continued from page 1

However, the research team recognizes that this method is useful only in epithelial cells, and they are working toward expanding their capabilities to investigate mesenchymal types of cancer, including melanoma, sarcoma, and lymphoma.

Next-Generation Analysis of CTCs for Drug Response

With funds from the American Recovery and Reinvestment Act of 2009, PADIS is working with Apocell, a molecular profiling and diagnostics company

in Texas, to test new technology that will enable the study of a broader range of cancer types.

Apocell is developing six alpha prototype instruments to allow separation of live CTCs from blood, independent of antibody-based capture methods. This platform, called Apostream I, utilizes a microfluidics chamber and AC electrical current to separate cells based on shape and charge, which are distinctly different in peripheral blood mononuclear cells and CTCs, thereby isolating CTCs from normal blood cells.

The advantages of the Apostream I platform include the need for less blood from patients, the ability to isolate a wide range of cancer types, and the ability to collect live CTCs for further study.

In addition to studies in the laboratory, Kinders’ group provides training to researchers and the community on the methods developed in PADIS for clinical trial support and their applications in patient tissues. ❖

Preparing CMC Section of IND Application Takes...

By Debbie Burgan, Contributing Writer, and Maritta Perry Grau, Staff Writer

When we think of a vaccine, we usually think of a miniscule dose administered through a shot in the arm. However, we don't usually think about the rigorous testing and documentation that precede the safe use of any vaccine.

This past year, the Vaccine Pilot Plant (VPP) manufactured a CHIKV VLP (chikungunya) vaccine for the Vaccine Research Center's (VRC's) Phase I clinical trial. But before the vaccine could be delivered to the National Institutes of Health (NIH) for use in the trial, a complex document, called an Investigational New Drug (IND) application, had to be submitted to the U.S. Food and Drug Administration (FDA) for review. The final IND contained nearly 3,000 pages, and almost one-third of that consisted of the Chemistry, Manufacturing, and Controls (CMC) section for the study.

VPP's Regulatory Affairs (RA) Group managed this CMC section (Item 7) of the CHIKV IND application for the VRC to support the Phase I clinical study. This was not an easy task. By the time the work was completed, the VPP RA Group had routed 15 versions, with nearly 100 pages in each version, that had to be meticulously evaluated and revised in each draft.

...Much Paperwork

The final, submitted IND contained eight volumes (2,862 pages, including attachments). Three of those volumes (923 pages, plus attachments) comprised the CMC section. In early December, the sponsor notified VPP RA that they had received clearance from the FDA to proceed with the trial, after which VPP RA coordinated the shipment of the clinical material to the NIH pharmacy. The National Institute of Allergy

and Infectious Diseases (NIAID) is conducting the Phase I clinical trial.

...Many Complex Tasks

Drafting and managing the CMC was a complex task. VPP RA had to follow a stringent timeline. To manage the work, they created a task list for each part of the CMC section and assigned subject matter experts to draft, enter data, and review sections. With the tight deadlines, VPP RA routed each version of the CMC with the timeline via e-mail to the subject matter experts for a "parallel review" via track changes. As reviewers' comments and edits were received, RA incorporated the information into a master version; addressed the review comments; followed up on requests for information; and held meetings with the client and VPP reviewers to address comments and pending tasks. RA, with quality assurance support, reviewed and formatted each version; edited text; re-arranged sections to improve the flow of information; verified all information, data, and references; and addressed comments.

At the end of the review cycle, the master track-change version was the compilation of the reviewers' edits and comments. To prepare for the next review cycle, RA created a clean copy of the master track-change document by accepting all of the edits and deleting the comments that were addressed. Comments that were not addressed in the previous review or any new comments received remained in the CMC to be addressed in the next review cycle. The clean copy became the new version to be used for the next review cycle.

In addition to the clean copy, RA created a PDF copy of the master track-change document for use as a reference by the reviewers to see what changes were made and what comments were addressed during the previous review cycle.

Because the reviewers were located at different sites, the electronic process

allowed RA to maintain version control, facilitate communication between the subject matter experts, expedite the review process, and meet the deadlines.

...Many Versions

While preparing the document in various versions, VPP RA gathered and incorporated information on manufacturing, filling, raw material and components; and testing and characterization information provided by the reviewers.

Originally, the SAIC Corporate Regulatory Office was to complete development of the CMC section, along with the rest of the IND. However, because of the success of the project to date, VRC decided to have the VPP RA Group continue to manage drafting the CMC section.

Overall, managing the CMC was a very dynamic process. Fifteen versions of the CMC were routed for review, and approximately 420 comments were addressed. Some of the issues when managing this project were drafting the CMC concurrent with the development of the test methods, generation of the data, characterization of the product, as well as working with cross-functional and multidisciplinary groups at multiple sites.

Despite all the details and work that needed to be done, the VPP RA Group accomplished its goals, and the CHIKV CMC section was submitted on time to VRC to incorporate into the IND. The IND application was submitted to the FDA on November 9, 2011, one day ahead of the VRC's target submission date. ❖

John Jumper Takes the Reins as SAIC's New CEO

From SAIC Press Releases

John P. Jumper became the chief executive of SAIC Corporate on March 1.

Walter P. Havenstein, who led the company since September 2009, announced his retirement in October 2011.

"I am honored to have been selected to lead SAIC and am keen to face the challenges ahead in our industry," Jumper said in a February 21 press release.

Jumper has served as a member of SAIC's board of directors since June 2007. He joined the private sector in November 2005 after 39 years



John P. Jumper was described as "an exceptional leader..., focused on performance, and uncompromising on ethics," by A. Thomas Young, chair of SAIC's board of directors.

of service in the United States Air Force, retiring as the chief of staff.

"Given SAIC's focus on providing the most advanced technical solutions to war fighters and government and commercial customers, after an exhaustive search of candidates the Board viewed Jumper as uniquely qualified to lead SAIC at this time,"

A. Thomas Young, chair of SAIC's board of directors, said in the press release.

Jumper most recently served as a senior adviser for private

equity firms, including the Carlyle Group and the Four Star Group. He

holds a bachelor of science degree in electrical engineering from the Virginia Military Institute and a master of business administration from Golden Gate University. He is a graduate of both the Air Command and Staff College, and the National War College. ❖

Sources:

<http://investors.saic.com/phoenix.zhtml?c=193857&cp=irol-govbio&id=166244>

<http://investors.saic.com/phoenix.zhtml?c=193857&p=irol-newsArticle&ID=1663124>

SAIC Settles CityTime Matter

SAIC reached a settlement on March 14 with the U.S. Attorney for the Southern District of New York to pay \$500.4 million in penalties and restitution relating to the CityTime matter.

CityTime is a New York City payroll project designed to modernize the city's payroll system by streamlining employee timekeeping.

Below is an excerpt from the statement from SAIC's chief executive officer, John Jumper.

Colleagues,

SAIC has reached a settlement with the U.S. Attorney for the Southern District of New York and the City of New York on the CityTime automated workforce management system. This settlement allows us to conclude the CityTime matter and move forward as a better, stronger company dedicated to the highest standards of ethics and customer performance.

I would like to thank you all for your continued loyalty to SAIC and to our customers during this prolonged period of uncertainty.

As we all know, the CityTime contract with the City of New York became a vehicle for fraud perpetrated by two

former SAIC employees conspiring with others not in the Company. There were also failures of certain managers in connection with the project. We in SAIC who have dedicated ourselves to higher ethical standards have felt victimized by this breach of trust as has the City of New York. We also understand that the Company is responsible for the actions of all its employees, and we accept that responsibility, as well as the accountability that goes with it.

Frequently overlooked in this case is the fact that SAIC developed and delivered a world-class workforce management system for New York City. The system covers 163,000 city workers and has increased the effectiveness and efficiency of the city's administrative processes. In the end the capabilities of our magnificent solution have been obscured by the self-serving, unethical behavior of people we assumed were loyal members of our team. We must dedicate ourselves to never letting this happen again.

Here are the key points of the settlement:

- SAIC will pay a total of \$500.4 million in penalties and restitution.
- An outside independent monitor will be appointed for SAIC for a period of up to three years.
- SAIC was charged with a single criminal count relating to CityTime.

SAIC pleaded not guilty to the charge and the government has agreed to defer prosecution of the charge based on the Company's cooperation with the investigation, remediation efforts and acceptance of responsibility.

- We expect that it will be dismissed in three years. As we previously reported to you, we anticipated that settlement cost would be high. We were ready for it. The Company remains financially strong and stable, and we are moving ahead.

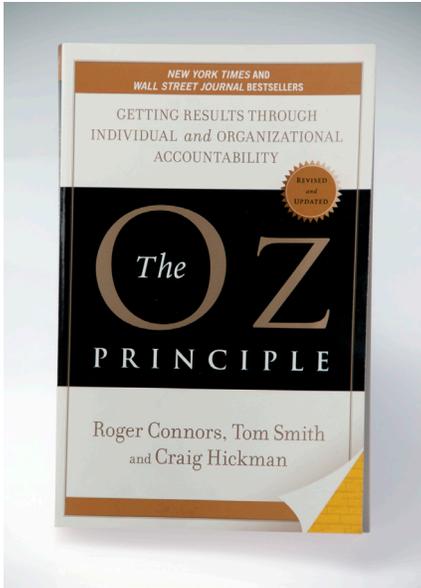
There are three things we must do moving forward. We must continue our unshakable focus on ethical performance for our customers. We must embrace the changes that are going to make us a better, stronger company. And each of us must be vigilant, holding each other accountable for what we do. We have seen the harm that certain people can do if unchecked by the vast majority of us who insist on doing the right thing. We must do everything we can to uphold our values and see that an incident like CityTime never happens again.

Sincerely,
John Jumper
Chief Executive Officer ❖

Accountability Training Challenges Managers to Perform “Above The Line”

By Ashley DeVine, Staff Writer

The Building Personal Accountability Program (“Above The Line”), a new training initiative based on the book *The Oz Principle*, began April 4 for all managers with two or more direct reports.



The book suggests that a metaphorical “line” exists that separates effective and ineffective behaviors in complex organizations. “Above the line” is the land of accountability: the “see it, solve it, do it, own it” territory. “Below the line” is the “wait and see, cover your tail, finger-pointing, it’s not my job” territory.

When employees take personal ownership of their organization’s goals and accept responsibility for their own performance, they become more invested and work at a higher level.

“I’m confident that this important training program will result in great value to SAIC-Frederick and the Frederick National Laboratory, and a greater sense of empowerment for our employees,” SAIC-Frederick Chief Executive Officer David Heimbrook, Ph.D., said in his e-mail announcing the program.

All training sessions will be held from 9 a.m. to 4 p.m. in the Building 549 café room. Participants must attend one session to complete the program. Sessions run through September on the

following dates: April 19; May 2, 17, and 30; June 28; July 11, 19, and 26; August 9, 15, and 23; and September 6, 12, 20, and 26.

For more information or to register, go to <http://home.ncifcrf.gov/SAICFTraining/accountability.html>. ❖

**ABOVE
THE
LINE**
Building Personal Accountability

New Administrative Professionals Certificate Program Begins This Month

By Ashley DeVine, Staff Writer, and Sukanya Bora, Contributing Writer

SAIC-Frederick launched its internal certificate program for administrative professionals on April 12.

This comprehensive program is designed to support the vital role administrative professionals play in the organization by providing opportunities to develop the core skills and competencies needed for success and creating an environment of continuous learning and development.

“This is a brand new initiative and we are excited about it,” said Sukanya Bora, manager of Training and Development, Human Resources. “The topics, skills, and concepts covered in this program are similar to the certification program offered by the International Association of Administrative Professionals, and it will serve as a stepping stone to the formal certification exam.”



Students enrolled in this program will complete 13 courses within a two-year period to earn a certificate. They will take nine core, or required, courses and four elective courses. The courses are divided into three tracks: professional skills, tactical skills, and individual enhancement. Courses in interpersonal and written communication, customer service, efficient use of common office software, effective management of tasks, and other topics will help students strengthen their resumés and improve job performance.

“Our administrative professionals deserve this opportunity to learn and grow, and I’m very glad that we’ve been able to make it possible,” SAIC-Frederick Chief Executive Officer David Heimbrook, Ph.D., said in his e-mail announcing the certificate program.

For more information, go to <http://home.ncifcrf.gov/SAICFTraining/apcp.html>. ❖

Employees Recognized during First Quarter 2012

The following employees were recognized for exceptional workplace contributions during the first quarter of 2012:

Applied and Developmental Research Directorate

Eileen Downey

Contract Planning and Administration

Debonny Shoaf

Financial Management Directorate

Chris Rowe • Shiann Talley

Information Systems Program

Trent McKee

Vaccine Clinical Materials Program

Jessica Bahorich • Freda Freeman • Bill Glaser ❖

What Is ERP?

By Dan Fox, Guest Writer

ERP is short for Enterprise Resource Planning.

Still confused? That's okay. ERP is a generic term for the systems used to assist with the business processes we use every day, and it is not easily understood from its name alone.

Employees who make purchase requests for items, accounts payable staff who manage the payment of invoices, and managers who track budgets or run reports are all using ERP. Many of us use these systems every day, like SmartStream or the Web-Based Management Reports, to accomplish the tasks needed to perform our jobs effectively. These systems constitute our current ERP environment.



Dan Fox

Streamlining Business Processes

As our business has grown, the volume of information and level of detail that we generate has surpassed the ability of our current environment to track and report on our data as efficiently as possible. Therefore, a project is now under way to streamline the business processes that are currently in use at the Frederick National Laboratory for Cancer Research, integrating the disparate business systems as tightly as possible. These changes will make it easier to perform business functions such as making and managing purchase or travel requests, tracking budgets, or accessing information through consolidated reporting tools.

A team of SAIC-Frederick employees, with the help of staff from both the Frederick National Laboratory and Data Management Services, Inc., is selecting a product and the product implementation team to provide the new systems that

will replace the core functionality of our current system. The entire ERP upgrade project is expected to be completed by December 2013.

Watch Your E-Mail

The implementation of these new systems will affect not only the owners of the business processes that are being replaced by the new systems, such as purchasing and travel, but also the users of the new systems, such as anyone making a purchase or travel request. Most SAIC-Frederick employees will be affected in some way, so it is important that you be informed.

More information will be made available as the project moves forward, so watch your e-mail for updates. If you have any questions about the process, please contact Dan Fox at foxdani@mail.nih.gov, or 301-846-5377. ❖

Dan Fox is an analyst/project manager, Information Systems Program.

Try a Team-Building Activity to Strengthen Your Group's Bond

By Ashley DeVine, Staff Writer, and Sukanya Bora, Contributing Writer

Imagine that your group's airplane crashes in a remote jungle and in order to survive, you must work together to build an escape helicopter.

No, this isn't an episode of *Lost*; it's an example of one of the various team-building games and simulations that the Human Resources (HR) Training and Development office has available to improve your group's ability to work together. These activities are not just about fun and games. Real learning is quickly absorbed as participants learn and discover key concepts centered on effective team performance.

Terri McLellan's group in the Laboratory Animal Sciences Program recently participated in the helicopter team exercise and found it to be a positive experience.

"I thought this would be a fun and structured event that would bring [the group] together and help build on what we already have. In the end, we discussed, 'what we do well as a team,' and the response was very positive



From left: Debbie Swing, Colleen Barrick, Jenny Boone, and Jennifer Beachley work together to build a helicopter model as part of the Jungle Escape team assessment available through HR. *Photo courtesy of Sukanya Bora.*

and enlightening as a manager," said McLellan, technical operations manager.

"The exercise definitely promoted teamwork and it had people working together that normally do not interact. In order to accomplish the task, all the members had to participate, and I feel everyone took part," said one the participants, Debbie Swing.

For information about the team assessments and simulations available through HR, visit <http://home.ncifcrf.gov/SAICFTraining/customizedtraining.html>. If your group is interested in trying a team-building activity, contact Sukanya Bora, manager, HR Training and Development, at boras@mail.nih.gov or 301-846-1129. ❖

Financial Management Reaches Out for Knowledge

By Eric Fout, Guest Writer, and Ashley DeVine, Staff Writer

The Financial Management Directorate provides support to every SAIC-Frederick employee, from payroll and travel reservations to budget management and internal auditing.

In an effort to learn more about the groups that it supports, the directorate started an initiative in February to tour various areas of the company every other month.

“We think the lab tours, as a business partner and support organization, are an opportunity to realize the vision we are supporting,” said Ken Carpenter, chief financial officer, SAIC-Frederick.

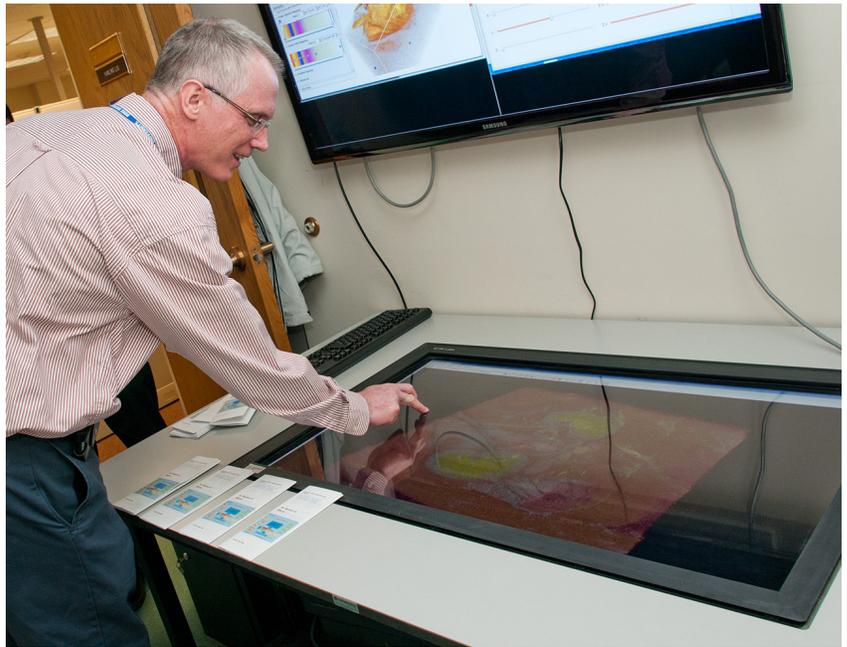
The directorate’s first tour took place February 7 at the Advanced Biomedical Computing Center (ABCC), led by director Jack Collins, Ph.D. During the tour, ABCC provided an overview of its daily workings, how it interacts with other groups within the company, and the computer resources it requires. The tour included hands-on demonstrations of cutting-edge imaging and visualization tools, as well as the physical computer power and storage required to run such applications.

“I thoroughly enjoyed the tour. I sincerely think it helps us all get a ‘big picture’ of what we are all working towards, and how we support such important research,” said Patti Martinez, financial analyst, Financial Management Directorate.

David Heimbrook, Ph.D., chief executive officer, SAIC-Frederick, joined the tour to meet some of the ABCC staff members and learn more about their work.

If you are interested in providing a tour of your laboratory or work area, please contact Eric Fout at fouter@mail.nih.gov. ❖

Eric Fout is a financial analyst, Financial Planning and Analysis Department, Financial Management Directorate.



David Heimbrook gets a hands-on demonstration of the tools available in ABCC’s Imaging and Visualization Group.



Yanling Liu explains the imaging and visualization tools available in ABCC. From left: Bob Miller, and Yanling Liu.



Bob Leberz leads the tour through the data center.

Got Lasers?

By Kimberly Teska, Guest Writer

Do you or your lab colleagues use lasers, laser systems, or laser-containing equipment in conjunction with your day-to-day research?

Lasers are used daily throughout the Frederick National Laboratory for Cancer Research in various scientific applications, such as spectroscopy, diagnostics, microscopy, and imaging. A laser may be a primary component of a particular piece of equipment, part of a system, or added at a later date to enhance existing equipment.

Is There a Laser in Your Laboratory?

Most lasers found in laboratories at the Frederick National Laboratory are embedded within securely enclosed scientific equipment, significantly decreasing any potential laser hazard when operated according to normal operating instructions. However, in some instances laboratory personnel may open an enclosure to realign or adjust the embedded laser, creating an exposed laser beam. Additionally, some laboratories at the Frederick National Laboratory use stand-alone, open-beam class 3B or -4 lasers as part of their daily research.

Is Your Laser Registered?

A completed Laser Registration Form must be filed with the Environment, Health, and Safety Program (EHS) for all lasers used for scientific research. This includes scientific equipment that may contain embedded lasers, laser systems, and stand-alone open-beam lasers.

The Laser Registration Form requests specific laser information, such as the lasing medium (i.e., Nd:Yag, HeNe), the wavelength output, maximum power output, and maximum energy. This information is needed to determine whether there



is a laser hazard, in addition to safety requirements for the laboratory area and for the individual using the laser.

Additionally, the laser registration forms are used to maintain an accounting of all lasers used in scientific research at the Frederick National Laboratory. A Laser Registration Form can be obtained from the EHS website or from the Radiation Safety Office.

EHS Laser Safety Program

The Laser Safety Program, under the direction of the Radiation Safety Office, EHS, ensures the safe use of lasers at the Frederick National Laboratory. The Laser Safety Program adheres to the American National Standards for Safe Use of Lasers (ANSI Z136.1) to fulfill this responsibility.

EHS personnel will conduct a hazard analysis to determine when a laser hazard exists. When a laser hazard exists, EHS personnel will determine a nominal hazard zone, calculate wavelength-specific eye protection, provide training, assist with safety and control measures, and initiate medical surveillance for those individuals with the potential of exposure to laser beams.

Questions?

If you have a laser, laser system, or laser-containing equipment used for scientific research and have not completed a Laser Registration Form, or have any laser safety questions, contact the Radiation Safety Office for assistance at 301-846-5730.

Kimberly Teska is an occupational safety specialist, Environment, Health, and Safety Program.



DANGER



**Laser Radiation –
Avoid Eye or Skin Exposure to
Direct or Scattered Radiation**

Ti:Sapphire (840 nm)

Class 4

How Does a Digger Wasp Protect Her Young?

By Nancy Parrish, Staff Writer

If you don't know the answer, you should come to the 16th annual Spring Research Festival on May 9 and 10, where this humble creature takes center stage by representing successful interactions of organisms.

Officially known as *Philanthus triangulum*, the beewolf digger wasp takes advantage of symbiotic relationships to ensure the survival of its offspring.



Female digger wasps grow bacteria on their antennae, which they then smear over the cocoon containing the larva. These bacteria generate a cocktail of antibiotic substances that specifically target pathogens that can be deadly to the larvae.

According to David Newman, D.Phil., chief, Natural Products Branch, Developmental Therapeutics Program, such interactions in nature can be “‘mined’ for useful leads to treatment of human diseases.”

New Location for the Festival

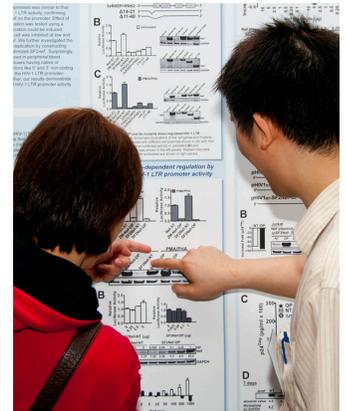
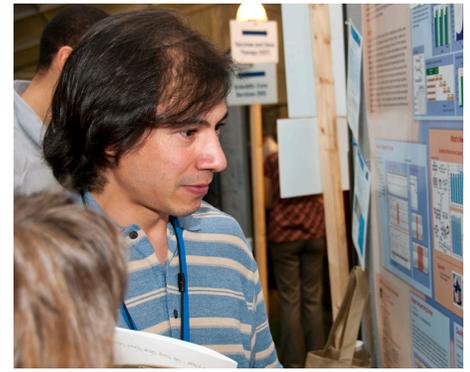
The festival, sponsored by the Frederick National Laboratory for Cancer Research and Fort Detrick, will be held at a new location, on Porter Street behind the gymnasium.

Open to the scientific and local communities, this annual event is designed to demonstrate “the nature of our research, the discoveries we have made, and the challenges we face in the fight against cancer, AIDS and other infectious diseases worldwide,” according to the festival website.

Symposium and Talks Scheduled for Festival Week

Festival week kicks off on May 7, with a postdoctoral/post-baccalaureate symposium on Animal and Plant Models of Disease. The keynote address, entitled “Modeling Cancer Metastasis: From Molecular Insight to Translational Applications,” will be presented by Yibin Kang, Ph.D., Department of Molecular Biology, Princeton University, Princeton, NJ.

Awards given for the best presentation include a travel subsidy as well as a certificate of achievement.



Scientists share their research during poster sessions at the Spring Research Festival 2011.

In addition, for the first time, a series of talks will be presented on May 8 that highlight collaborative projects with the agencies of the National Interagency Confederation for Biological Research.

Festival Events: May 9 and 10

Posters will be displayed on May 9 and 10, from 10:00 a.m. until 2:30 p.m. each day. Presenters will be available between 11:00 a.m. and 1:00 p.m. to meet and discuss their research with judges, colleagues, and special guests.

In addition to the poster presentations, the Commercial Science and Technology Expo will be held from 10:00 a.m. until 2:30 p.m. each day. The Expo provides an opportunity for hands-on demonstrations of the latest in equipment, services, and technology presented by major national and regional vendors from the biomedical research/biotech industries.

The festival also includes the Health Education and Community Services Exhibition, which features displays from a broad range of national and local health-related organizations, as well as safety and scientific exhibits. Information will be available on relevant

health topics such as cancer, AIDS, aging, drug and alcohol concerns, mental health issues, fitness, holistic health care, and more.

For a complete schedule and information on events, visit the website: <http://springfest.ncifcrf.gov>. Or contact Julie Hartman, 301-846-7378, or hartmanj@mail.nih.gov. ❖

Registration Still Open

There's still time to register as a poster presenter or exhibitor at the 16th annual Spring Research Festival on May 9 and 10.

Posters registered by April 25 will receive a listing in the Spring Research Festival program, and will qualify for judging. Late registration for posters is May 2.

All exhibitors must register by April 25.

Check the website for details: <http://springfest.ncifcrf.gov>.

Intern Selected as Semifinalist in Intel Competition

By Nancy Parrish, Staff Writer

High school intern David Zhu was recognized in January as a semifinalist in the 2012 Intel Science Talent Search, a prestigious national competition for high school seniors that is sponsored by Intel Corporation.

One of 300 semifinalists out of 1,839 high school students nationwide, Zhu's winnings include a \$1,000 college scholarship and \$1,000 for his school, Urbana High School in Ijamsville, Md.

Now a senior, Zhu worked with mentor Buyong Ma, Ph.D., last summer as an NIH Summer Internship Program Special Volunteer, in the Computational Structural Biology Group, Center for Cancer Research Nanobiology Program, headed by Ruth Nussinov, Ph.D. He continues to work with Ma to prepare their research results for journal publication.

Zhu's project, entitled "Systematic Evaluation of Net-Charge of Human Immunoglobulin IgG," was based on a computer program that he wrote to calculate the net charge of antibodies, which, he said, is an important aspect of the overall behavior of protein-protein interactions. Understanding the net

charge properties and structure-function relationships of antibodies is significant to the development of protein-based drugs to be used in the treatment of certain cancers, he said.



David Zhu (left) shown working with mentor Buyong Ma to prepare their research results for publication.

Too Busy to Notice

Zhu said that when the Intel winners were announced, he was too busy to realize he had actually won. "At first, I didn't register that I really had won the award, due to the homework I was doing when I was notified; however, after a few minutes, I was very surprised about my Intel status," he said.

Ma praised Zhu's "creativity and ingenuity" in their study. He explained that their research was initially restricted by the sheer volume of data, but Zhu

"found ways to eliminate redundant combinations," making it possible to work with the statistics.

"He has a good sense of the overall design of [the] computer program," Ma said. "I am particularly proud of him in his work. [The research] requires knowledge in chemistry, biochemistry, computer language skill, and outstanding personality in scientific research: dedication and persistence."

When Craig Reynolds, Ph.D., director, office of scientific operations, Frederick National Laboratory, learned of Zhu's achievement, he noted, "David is a very dedicated and talented student, and he obviously made the most out of his opportunity working with Drs. Ma and Nussinov... We look forward to hearing more good things from David in the future!"

Internship Influenced Career Plans

The son of Jianwei Zhu, Ph.D., director, Early Process Sciences, Biopharmaceutical Development Program, David said he was initially interested in computer science through his high school courses. However, the internship had a significant impact on his career plans. "After working in the internship, I realize now that I definitely want to study computer science," he said.

As we went to press, he had been accepted by the University of Michigan and was still waiting to hear from other schools where he may fulfill that hope: Carnegie Mellon University, Cornell University, and the University of Maryland, College Park. ❖

Take Your Child to Work Day

Now's the Time to Start Thinking

By Nancy Parrish, Staff Writer

If you'd like to participate in Take Your Child to Work Day, now's the time to start thinking about how you can contribute. You can present a scheduled program, participate in general activities at the Hub, or volunteer wherever you're needed.

No matter what you do, you'll find it's a great way to introduce the children of Frederick National Laboratory and Fort Detrick employees to the wonders of science—and you may be surprised at how much fun you will have.

Keep in mind that this is a significant event in the lives of the children as well as an important demonstration of this facility's commitment to the Frederick community.

If you would like help developing a program, contact Julie Hartman, 301-846-7338 or hartmanjb@mail.nih.gov.

Watch your e-mail and check the website for details:

<http://kidsday.ncifcrf.gov/>. ❖

Dates to Remember:

May 2–July 18: Website is available (<http://kidsday.ncifcrf.gov/>)

***May 3–June 1:** Registration of programs and Hub activities

June 7–July 18: Descriptions of all programs and Hub activities will be on the website

June 18–July 3: Registration of children

July 18: Take Your Child to Work Day

*Note that many programs are needed for an event that your children will remember, and want to come back to.

HR and ATP Awarded for Highest Participation in Double Our Reach

By Ashley DeVine, Staff Writer



Human Resources receives a “Benny” Award. Standing in back, from left: Halee Helmer, Courtney Cutsail, Sukanya Bora, Irene Newman, Colette Donato, Alison Scott, Latasha Clements, and Darlene Rosmarino. Seated, from left: Retha Parsons, Lauri Rimorin, Kathy Burke, Patricia Fitzsimmons, and Mary Neville. Front: David Heimbrook and Jill Sugden (Not pictured: Lisa Heflin and Erin Wheeler).

Two groups received “Benny” (benevolence) Awards for achieving the highest percentage of employee participation in the 2011–2012 Double Our Reach campaign.

Human Resources had the greatest participation among groups with fewer than 100 people, at 26.67 percent. Among groups with more than 100 people, the Advanced Technology Program had the greatest participation, at 13.19 percent. ❖



Local Wins SAIC Corporate Ethics Challenge

By Maritta Perry Grau, Staff Writer

2011 ended on a high note for Mandi Miller, animal caretaker, Laboratory Animal Sciences Program, when she was the winner out of more than 2,300 people who participated in SAIC



Mandi Miller, Ethics Challenge winner.

Corporate’s Ethics Challenge contest.

“I was quite surprised to find out that I had won, especially since it was nationwide,” Miller said. Just in time for those spring and summer fashions, Miller chose a GAP gift card, valued at \$100, as her reward for answering correctly three questions on the Ethics Challenge.

Shannon Jackson, prime contract manager and Employee Ethics Council representative, announced Miller’s win in January through a global e-mail to SAIC-Frederick staff. ❖

Show These Employees Some RESPECT

The RESPECT (Recognizing Excellent Service Promotes Employee Commitment and Teamwork) employee recognition program encourages employees at all levels to acknowledge the contributions of other employees or project teams of employees at SAIC-Frederick. For more information or to fill out the nomination form, go to <http://bit.ly/y58L25>.

RESPECT award winners for the period of December 5, 2011, to March 14, 2012, are:

Amy Adams • Ayobola Akingbade • Richard Angleberger • Kevin Baker • John Bell • Donald Blickenstaff • Rose Bradley • Joel Brown • Ronald Brown • Nina Bubunenko • Nelson Buhrman • Jerry Burge • Barbara Burgess • James Carr • Bart Christy • Ryan Clabaugh • Vicky Coalter • Megan Cole • Kyndal Cook • Gemma Corley • Teresa Covell

• Ricky Cregger • Thomas Crone • Wendi Custer-Lawrence • Gaby Dasema • Marty Dayberry • Tracy Dean • James D’Errico • Jessica Dickens • Lindsay Dutko • John Eyler • Tony Favorite • Nicole Fisher • Bob Fritz • Kate Fulmer • Herschel “Tim” Gibbs • Yelena Golubeva • Brad Gouker • Joseph “Grit” Griffiths • Denny Grove • Vanessa Grubbs • David Hamilton • Mark Hamilton • Todd Hartley • Jeffrey Hess • Bryan Hissey • Paul Horning • Charlana “Missy” Hughes • Robert Jackson • Terry Jennings • Marko Johnson • Hyo Jung Lee • Megan Kaminski • Charles Keeney • Larry Kees • Courtney Kennedy • Yuliya Kriga • Michael Kruis • Norman Lambert • Douglas Leggett • Marvin Lescalleet • Yelena Levin • Alex Levitsky • Jennifer Matta • Mike Mayes • Laurie McMahon • Mehrl Murphy • Kevin Newell • James Notnagle • Kristen Pike • Teri Plona • Shashi Ratnayake • Arati Raziuddin • Chris Rowe • April Schildtknecht • Michael Schildtknecht • Julie Scuffins • Monica Segreti • Gregory Selby • Jyoti Shetty • Nicole Shrader • Virginia Simpson • Dennis “Toad” Smith • Woodrow “Woody” Smith • Patricia Snowden • Kelly Spore • Larry Sternberg • Robin Stewart • Ling Su • David Sun • Kenneth Thompson • Lisa Timmer • Bao Tran • Que Van • Bryan Vaughn • Andy Warner • Kenneth Weller • Thomas Widmyer • Adam Wiles • David Wiles • Rodney Wiles • Bradley Wiley • Jeremy Wilhide • Xiaolin Wu • Osborne “Oz” Yommer • Keith Zecher • Yongmei Zhao ❖



Head of the Protein Chemistry Laboratory Retires

By Kathy Miller, Contributing Writer, and Andy Stephen, Guest Writer

After 27 years of service at the Frederick National Laboratory for Cancer Research, Robert Fisher, Ph.D., head of the Protein Chemistry Laboratory, Advanced Technology Program (ATP), recently retired.

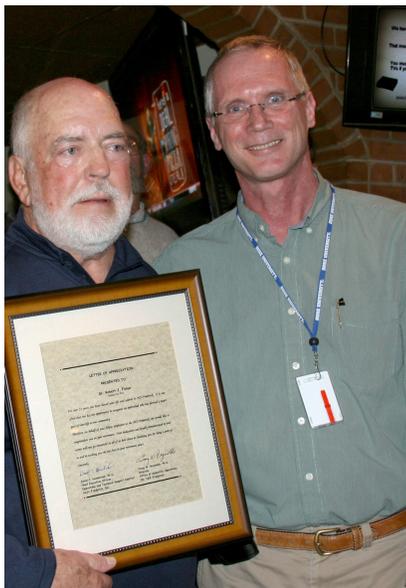
Fisher is well known throughout the campus as an expert in molecular interactions using surface plasmon resonance spectroscopy. Because of his extensive knowledge of biochemistry and biophysics, he was often the first expert that many colleagues, keen to get his perspective on their science, consulted. In addition, his expertise resulted in much collaboration between his laboratory and those of NCI investigators.

In January, ATP hosted a retirement event in Fisher's honor at Callahan's, a nearby restaurant; more than 60 colleagues attended.

Among the gifts was a pen and ink drawing of an old building by Rose Bradley, Fisher's secretary. "We've worked together for so long that I just wanted him to have something to remind him of his secretary," she said.

In addition, David Heimbrook, Ph.D., chief executive officer of SAIC-Frederick, presented Fisher with a plaque commemorating his many years of service. ❖

Andy Stephen, Ph.D., is a senior scientist, Protein Chemistry Laboratory, Advanced Technology Program.



Dr. Robert Fisher recently celebrated his retirement with many friends. Upper left, with Dr. Dave Heimbrook; left, with Dr. Jack Simpson and Lisa Sheffield; above, with Rose Bradley and Dr. Andy Stephen.

Tips for Saving Gas

Compiled by Ashley DeVine, Staff Writer

With gas prices on the rise, here are some tips from the Environmental Protection Agency and the Department of Energy on saving gas and improving mileage.

Observe the speed limit

Gas mileage usually decreases rapidly at speeds above 60 mph. You can assume that every 5 miles per hour you drive over 60 is like paying an additional \$0.31 per gallon for gas.

Equivalent gasoline savings:
\$0.27–\$0.89/gallon

Walk, bike, take a bus, or carpool when possible

Use your car only when necessary. If you own more than one vehicle, drive the one that gets the best gas mileage whenever possible.

Combine errands into one trip

Consolidate trips to destinations that are near one another. Save errands for one afternoon and plan your trip so you don't retrace your route.

Avoid long idles

Idling can use a quarter to a half gallon of fuel per hour, depending on engine size and air conditioner use. Turn off your engine when your vehicle is parked or if you anticipate a lengthy wait.

Fuel cost savings: \$0.01–\$0.03/minute (AC off); \$0.02–\$0.04/minute (AC on)

Remove excess weight from your vehicle

An extra 100 pounds in your vehicle could reduce your miles per gallon by up to 2 percent.

Equivalent gasoline savings:
\$0.04–\$0.08/gallon

Use cruise control and overdrive

Using cruise control on the highway helps you maintain a constant speed and,

in most cases, will save gas.

When you use overdrive gearing, your car's engine speed goes down. This saves gas and reduces engine wear.

Keep tires properly inflated

You can improve gas mileage by up to 3.3 percent by keeping your tires inflated to the proper pressure.

Equivalent gasoline savings: up to \$0.12/gallon

Get regular engine tune-ups and car maintenance checks

Tune-ups improve performance and gas mileage. Check your owner's manual for recommended maintenance schedules.

Equivalent gasoline savings: \$0.15/gallon

Note: Cost savings are based on an assumed fuel price of \$3.87/gallon. ❖

Sources:

<http://www.fueleconomy.gov/feg/drive.shtml>

<http://www.epa.gov/otaq/consumer/17-tips.htm>

What Is Your Language Saying?

By Teresa Stitely, Contributing Writer



I hope that our January Project Management article, “Take the First Steps in Rewriting Your Program’s Future” (*News & Views*, 17[1]:8, 2012), inspired you to begin rewriting the future of your programs or

projects. The first law in Steve Zaffron and Dave Logan’s *The Three Laws of Performance, Rewriting the Future of Your Organization and Your Life* (Jossey-Bass, 2009) described the way our performance relates to how situations occur to us and not necessarily to the actual facts. As we explore the second law of performance, “how a situation occurs arises in language,” we will map the connection between language and occurrence.

Look Inside Yourself for Answers

As a project manager, do you look to experts to help you find the knowledge to solve problems relating to performance? If knowledge is the key to successful performance, why is it that

when we apply what experts tell us, our projects still fail?

I suggest that we are looking in the wrong place for the answers. Unless our actions change or shift, how can we expect success? Are we more comfortable looking for the answers from experts than looking at what’s really going on within the project, organization, or, most importantly, within ourselves? Are we caught up in repetitive, unproductive behaviors that impede our performance? If your performance (or your team’s) is stuck and you don’t know what is holding you back, I hope that you will find insight with the second law of performance.

The Way a Situation Occurs Evolves from Language

Language in this instance is broad in nature. It includes spoken and written communications, as well as body language, tone of voice, facial expressions, and other actions that have symbolic intent. The culture of an organization, conflicting priorities, and the interests of departments or individuals are also examples. Another element of language is categorized as unsaid but communicated. Assumptions, expectations, resentments, interpretations, and regrets are a few examples. When it comes to evaluating performance, the unsaid is the most important part of the language. Being aware of what is not being said can open our eyes to what is going on below the surface.

One step further is what is unsaid and is communicated without awareness on the part of the sender. This communication below the surface of our consciousness has the biggest impact on the success of our future performance. It determines what messages are possible, not possible, important, not important, etc.

In this law, the “unsaid and communicated without awareness” manifests as linguistic clutter. Just like clutter that may have built up in a closet, if we do not rid ourselves of the clutter, we don’t have room for new ideas or ways to improve our performance. Without your realizing it, the clutter may be holding you or your team back from achieving your performance goals. How do you rid yourself of the clutter? Just like cleaning out a closet, you need to say what is on your mind, and communicate and resolve old issues, with the common goal of moving forward and leaving the past behind.

Learn the Language

Can you identify the clutter that is impeding your performance? Is a complaint a disguise for something much bigger? Maybe the clutter is a way to control the situation or avoid change.

So my take-away for you in this article is to learn the language. You will have more power over a situation when you can identify the clutter or identify that what may really be holding you back has to do with the way a situation occurs to you (your reality illusion). ❖

New Program Director Named for TCGA Support

David Heimbrook, Ph.D., chief executive officer of SAIC-Frederick, recently announced that Leonie Misquitta, Ph.D., has been appointed to head SAIC-Frederick’s support of The Cancer Genome Atlas (TCGA) program for NCI. She is responsible for the comprehensive management and oversight of all scientific and business activities conducted for this program.

TCGA is a comprehensive and coordinated effort to accelerate our understanding of the molecular basis of cancer through the application of genome analysis technologies, including large-scale genome sequencing. Due

to the complexity of this program’s interfaces within SAIC-Frederick, an integrated approach to leading this effort is essential.

Misquitta has more than 15 years of experience in biomedical and cancer research, translational genomics, health informatics, and organizational management. Before joining SAIC-Frederick, she pioneered the techniques of gene silencing and RNA interference in *Drosophila* at the National Cancer Institute, then went on to develop and implement the Mammalian Gene Collection database at the National Center for Biotechnology Information

and eventually to manage the Breast and Colon Cancer Registries at Georgetown University Medical Center.

With the Information Systems Program at SAIC-Frederick, Misquitta has effectively managed programs for the caBIG Technical Operations Group, the Office of Biorepositories and Biospecimen Research Operations Group, and the TCGA Operations Group.

She can be reached at 301-451-2174 or leonie.misquitta@nih.gov. ❖

Our thanks to Dr. Heimbrook for the information in this article.

Why Is Fitness a Part of Your Life? Fitness Challenge Winners Respond

By Ashley DeVine, Staff Writer

“Fitness is a part of my life because it has not only helped me to stay in shape, but has also improved my health, endurance, energy, and sleep.” —*Yunden Badralmaa, Applied/Developmental Research Directorate (ADRD)*

“After my foot and ankle reconstructive surgery, my physician stressed the importance of staying active ... it has taken me a few years to realize the importance of his message and I have finally realized that it isn’t really important how fast I move, just that I keep moving.” —*Beth Baseler, Clinical Monitoring Research Program*

“I have been overweight for over half of my life. Last year (2010), right after Christmas, I joined Weight Watchers. I lost approximately 40 pounds, which I have kept off for almost one year. I feel and look better than I did 10 or 20 years ago. I lowered my blood pressure and my back no longer hurts.” —*Cammi Bittner, Advanced Technology Program*

“I started running with my dad before school every morning in seventh grade because he wanted a running buddy to wake him up and keep him going. I pretty much never stopped running every morning since then. I get up at 4:30 a.m. to run my favorite five-mile course through town before coming to work.” —*Beth Buckheit, Financial Management*

“Fitness became part of my life about 10 years ago. I was overweight and out of shape and the doctor was threatening to put me on medication for high cholesterol. I decided that I wasn’t going to live my life on drugs and started running. Now I compete in 100-mile trail races.” —*Steve Dobson, ADRD*

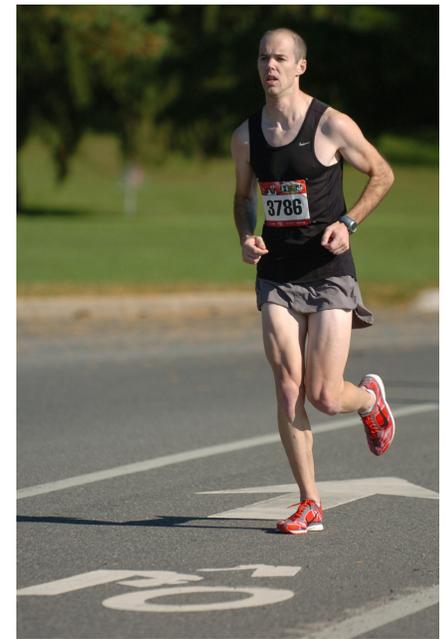
“I’ve been practicing yoga for nearly three years in Frederick and Leesburg, and I love how it helps every part of my life—it has helped with my running by increasing my flexibility and helping me to stay injury-free, and it is my primary form of stress relief.” —*Courtney Silverthorn, Contracts and Acquisitions*

“Fitness has always been an important part of my life and I try to do some physical activity every day. This year I’m competing at Ironman Louisville in August (a 140.6-mile triathlon).” —*Andrew Watson, ADRD*

“I have always been very active. I believe being fit will help in all aspects of your life. Helping to raise three girls has been the best part of my life and I believe being fit helped provide me with the energy to keep up with them.” —*Mark Whitmore, Contracts and Acquisitions*



Courtney Silverthorn demonstrates a bound one-legged king pigeon yoga pose. Photo courtesy of Courtney Silverthorn.



Andrew Watson ran his first marathon last October in the Baltimore Running Festival. Clocking in at 2:58:59, he placed 47 out of more than 3,000 runners. Photo courtesy of Andrew Watson.



Mark Whitmore bikes in the Catoclin Mountains at Gambrill State Park. Photo courtesy of Mark Whitmore.

January Winners

Walking: Wayne Helm • Steve Stull • Robin Dewar **Running:** Steve Dobson • Beth Buckheit • Andrew Watson **Biking:** Tom Gannon-Miller • Mark Whitmore • Kimberly Peifley **Weight Loss:** Beth Baseler • Cammi Bittner • Halee Helmer **Other Activities:** Will Sheffield • Yunden Badralmaa • Courtney Silverthorn

February Winners

Walking: Guity Mohammadi • Carol Caballero • Roberta Matthai **Running:** John Carter • Joseph Saavedra • Kelly Spore **Biking:** Yueqing Xie • Susie Culler • Edward Krusinski **Weight Loss:** Angela Spaniol **Other Activities:** Amy Cutshall • Dawn Gartner • Gary Krauss ❖

VPP Green Team Practices the Three R's

By Debbie Burgan, Contributing Writer, and Maritta Perry Grau, Staff Writer

It's quiet outside the Vaccine Pilot Plant (VPP). In a small (about 11.5 x 4 feet) area that once was part of a boring, flat lawn with non-native trees and shrubs, rabbits hop to nibble from one delectable grass to another. Squirrels, mice, voles, and chipmunks gnaw on seeds. Butterflies lazily float from butterflyweed to coneflowers and beebalm. Praying mantises, bees, and other beneficial insects range over flowers and shrubs. A flash of bright red, a zip of blue, and cardinals and bluejays, as well as ruby-throated hummingbirds, thrushes, gray mockingbirds, catbirds, finches, and many other birds, flit from tree to shrub to feeder.

That's just part of the greening of VPP. The other part is in the employees' attention to the new three "R's"—no, not readin', writin', and 'rithmetic—but rather reduce, reuse, and recycle.

With the changes in the waste management contract a few months ago, green efforts at VPP have expanded beyond the first recycling efforts (including the wildlife garden) started by John Maciolek in the VPP Quality Control (QC) Department.

Reduce

The VPP Green Team has proposed a focus on conservation of energy to result



in energy savings. The team noted that reducing energy consumption benefits both VPP and NCI. The team plans to track the cost savings once conservation of energy consumption is put into place.

Already, to help with energy conservation, "Lights Out When You're Out" sticker reminders have been placed on switchplate covers in certain areas. And employees are encouraged to participate in the "Power It Down" days as they are announced.

In another reduction effort, to help cut down on paper usage, the Document Control Department began printing double-sided copies for their standard operating procedure reviews.

Reuse

This past year, the team held two "Free Cycling" days. Employees brought in unwanted items from home, such as TVs, bookcases, cameras, toaster ovens, or microwaves, to swap or donate. Another "Free Cycling" day will be held this summer.

In addition, the QC Department participates in the Corning program that reuses the 15-mL and 50-mL Styrofoam racks for centrifuge tubes, according to Maciolek. "The postage is prepaid by Corning, so all we have to do is box it up and ship it, free of charge. This is a good way of keeping Styrofoam out of the landfill," Maciolek said.

Recycle

According to Earth911.com, a website that provides consumers with recycling information, more than 2.4 billion pounds of plastic bottles were recycled in 2008. Although the number of plastic bottles recycled in the U.S. has grown every year since 1990, the actual recycling rate remains steady at about 27 percent.

VPP has done its bit to recycle, too. Recycling efforts at VPP grew out of its QC Department's first Earth Day celebration four years ago. Now employees throughout VPP join in the April activities. Not long after Mike McMahon, facilities manager for VPP, put together a new service contract for VPP recycling, the VPP Green

Team was officially created. The new team looked for ways to involve other employees, encouraging them to think green and buy green products.

"The new contract helped to expand the program to other areas of the plant," Maciolek said. "We now have blue totes for recyclable items such as paper, plastics, and aluminum. These totes are located in the admin areas, cafeteria, facilities, quality assurance, and quality control areas. The new vendor does single streaming, which means you don't have to separate your recyclable materials anymore," Maciolek said.

The Green Team has found innovative ways to practice "green" at work and at home. On the last Earth Day, teams picked up trash from VPP all the way out to route 85. To make it fun, the Green Team awarded prizes of gift cards and bluebird boxes for the largest piece of trash, trash by weight, etc.

Maciolek practices what he preaches: at home, he keeps a compost pile. He even takes home the compostable trash that the team gathers on Earth Day.

"All plant-based materials (plants, fruits, vegetables, egg shells, yard waste, grass, leaves) can be recycled into composting," Maciolek said. "Don't add animal-based products, such as meat or bones, because that will attract pesky animals. Make sure the pile has enough air and moisture to encourage worms and microbial activity. Turn the pile over once a week. This will become equivalent to an organic top soil."

The team now also uses compostable utensils, plates, napkins, and cups at outside events and encourages everyone to use thermoses or to get water from the plant's water fountains, rather than use plastic water bottles. This year they plan to have a water cooler available for their events. Although the plastic bottles are recyclable, most are energy-intensive to manufacture because the plastic is petroleum-based. Maciolek noted that "some new bottles are partially made from plant-based compounds."

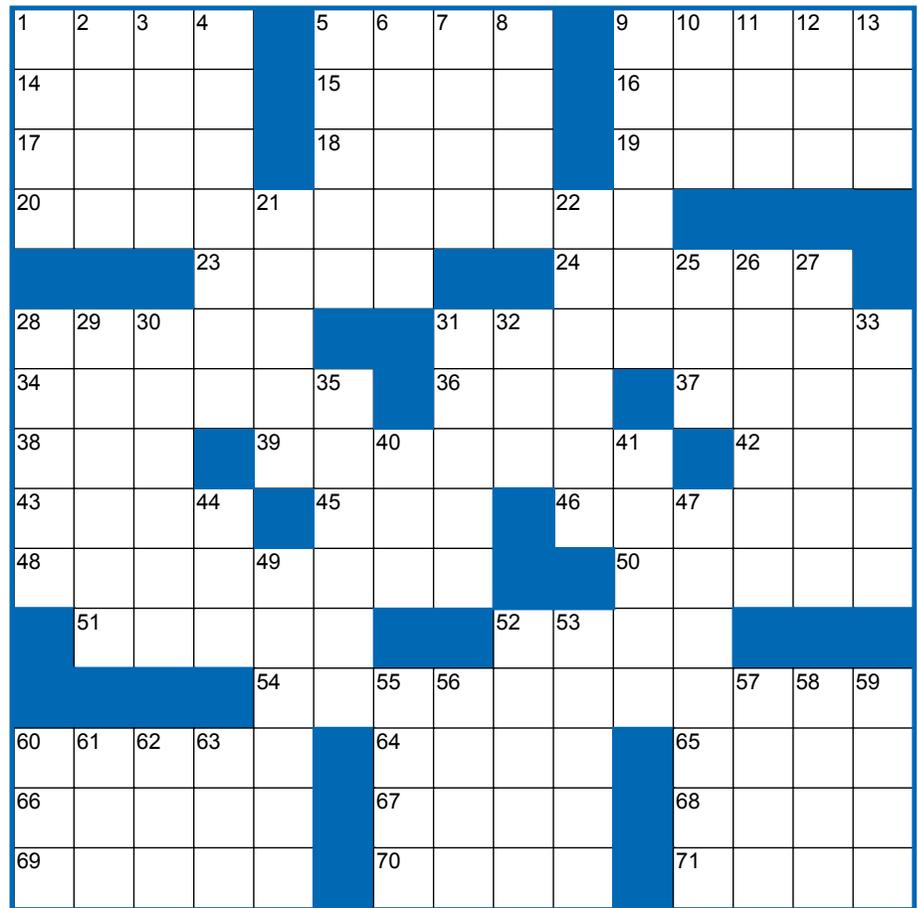
As we went to press, this year's Earth Day celebration was still in the planning stages. Green Team members include John Maciolek, Sheryl Ellis, and Debbie Griffiths. ❖

Collection

by Frank Blanchard

ACROSS

- 1 Pierce with a twisting tool
- 5 Fencing sword
- 9 Famous street in downtown Memphis
- 14 Away from the wind
- 15 Noted Sunday crossword author ___ Reagle
- 16 Alleviate
- 17 Fibber
- 18 Diarist Frank
- 19 Actor Nick of "Cape Fear"
- 20 Sean Connery as jungle collector
- 23 Fashion magazine
- 24 Smell or sight or touch
- 28 Uptight
- 31 Essential preparations from 39 Across products
- 34 Beer lever at a bar (2 wds.)
- 36 Teradyne Inc. stock abbr.
- 37 Soft drink brand of yore
- 38 Thirty-fourth U.S. president
- 39 Type of products collected by 20 Across
- 42 Ed. nonprofit for college-bound students
- 43 Collection of definitive word catalogues? (abbr.)
- 45 B' ___ B'rith International, Jewish organization
- 46 Dormant
- 48 Storage units for 31 Across
- 50 Medicine portions
- 51 Dylan's "Knockin' on Heaven ___"
- 52 Capital of Norway
- 54 National Cancer Institute's "20 Across"
- 60 Hawaiian porch
- 64 Broadway musical *The King* ___
- 65 Prefix relating to aircraft
- 66 WWII Bomber ___ Gay
- 67 Editor's mark for let it stand
- 68 Insecticide brand
- 69 First generic electronic computer
- 70 Large rock outcrops
- 71 Contracts for sharing 31 Across (abbr.)



DOWN

- 1 Salve
- 2 Rolie Polie ___
- 3 ___-only CD
- 4 Most frightful

- 5 Spam element
- 6 A tubed pasta
- 7 Shore bird
- 8 First six grades (abbr.)
- 9 "Star Spangled ___"
- 10 British band of "Evil Woman"
- 11 Every one
- 12 Largest back muscle (abbr.)
- 13 Center of a hurricane
- 21 Dirt-free
- 22 Out-of-the-body, ___ projection
- 25 Noted photographer Golden
- 26 Major segments of a play
- 27 Colorless odorless gas
- 28 Sweet, with a ___ of honey (2 wds.)
- 29 Church governing officers
- 30 Required
- 31 Fancy cases
- 32 Person from the '70s "generation"
- 33 Filters out unwanted particles
- 35 Bread and restaurant chain
- 40 With feathers, old punishment
- 41 Soup server
- 44 Web page fine-tuning (abbr.)
- 47 Goldilocks' first porridge rating, paraphrased?
- 49 Comprising 12 celestial signs
- 52 Stranger
- 53 Little hisses
- 55 Huge expanse
- 56 "He's Just Not That ___ You"
- 57 It goes with potatoes
- 58 Diva solo
- 59 Head-bobbing affirmations
- 60 Robert E. ___
- 61 Celebrated Texas governor Richards
- 62 Minister Louis Farrakhan's group (abbr.)
- 63 Eastern neighbor of Miss.



Answers to the January 2012
News & Views crossword puzzle

“What’s your 10-20?” Is Out; “Where are you?” Is In

By Ken Michaels, Staff Writer

In a previous article in this series, I described the process of encoding and decoding messages, and how that process can affect the quality of the resulting communication (*News & Views* 16:19, October 2010). In essence, a message sender encodes a message by expressing it in such a way that he or she believes it will be clearly understood. When the receiver decodes the message in the way the sender expected, the first link of communication has taken place. The receiver then becomes the sender and encodes a reply to the original sender. If the reply is decoded as the sender intended, the communication loop has been completed. Most commonly, encoding amounts to simply selecting words that will be most easily decoded as intended.

An interesting article* about message encoding appeared in the *Frederick News-Post* not long ago, referring to



Ken Michaels

the Maryland State Police’s decision to abandon the previously used “ten-code” system. Ten-codes have been widely used by law enforcement and other first responders in the United States for many years, largely for their economy of speech, to get precise information across quickly. For the dispatcher to tell a unit in the field that a citizen has reported a suspicious vehicle circling the block, all that’s said is, “There’s a report of a 10-37 in (location).” There’s also a measure of security involved; if a radio listener accidentally hears such a message broadcast, unless he or she knows the ten-code system, the message is meaningless. The only ten-code that will continue to be used may be the only ten-code that the average citizen (who watches certain television shows) knows: 10-4, the universal code for “OK.”

Communicating in Plain Language

So what will the troopers do now for communication, you ask? Well, they’ll speak in plain language, using what is referred to as Common Language Protocol. State police say that the change conforms with a national trend to use more uniform communications, begun in the wake of the 9/11 terrorist attacks, when non-uniform codes and signals led to confusion among agencies attempting to operate effectively together.

Uniformity Is Key

Communication in plain language may indeed improve understanding between agencies that use different systems, but

once again, a certain measure of uniformity will be necessary. As the article puts it, “Officials are hoping the changes will make communication among troopers and with other agencies as simple as Alpha Bravo Charlie.” In other words “as simple as ABC.” It means that troopers



will use the standard phonetic alphabet (also called the military alphabet) when transmitting letters. And the phonetic alphabet requires that each of the 26 letters of the alphabet is represented by one word that everybody uses; alpha, bravo, and charlie are followed by delta, echo, and foxtrot, and so on through whiskey, X-ray, yankee, and zulu.

So even with the adoption of plain language in radio communication among Maryland state troopers—or in communication between you and your colleagues—certain standards for encoding and decoding messages need to remain in place. Communication is only effective when everyone is using the same set of codes. ❖

*Englar, B., “State police say 10-22 to the ten code system,” *Frederick News-Post*, February 4, 2012, A-1.

SAIC-Frederick Training Calendar

Individual and Professional Enrichment Series

- Leading Team Meetings Successfully April 25, 9 a.m.–12 p.m.
- How to Manage Change May 9, 8:30 a.m.–12:30 p.m.

Management and Supervisory Series

- Workplace Accommodations April 26, 12–1 p.m.
- Successful Interviewing Techniques May 1, 12–1 p.m.

Communication Series

- Persuasive Business Writing April 26, 12–1 p.m.
- Business Writing for Effective Communication May 17, 12–1 p.m.

To register for any of the courses listed above, log on to <https://lms.learning.hhs.gov>. For more information about training opportunities, go to <http://home.ncifcrf.gov/SAICFTraining/index.html>, or contact Sukanya Bora, manager, Training and Development, Human Resources, at 301-846-1129 or boras@mail.nih.gov. ❖

Correction:

In the photo caption on page 20 of the January 2012 *News & Views*, the name was incorrectly spelled. The correct spelling is Marialva de Matos.

ATRF Brimming with Activity

By Hoyt Matthai, Guest Writer

With the opening of the Advanced Technology Research Facility (ATRF) now less than two months away, final preparations of the interior are in high gear.

The laboratory wings, which are being fitted out from the top down, are nearing completion, with cabinetry in place and carpeting installed in many areas. In the administration wing, the server racks are now in place in the data center, and installation of the VoIP (Voice-over-Internet Protocol) system, which allows voice calls to be made over the Internet, is expected to be completed in April.

The administration wing, which is being finished from the first floor up rather than third floor down, is currently scheduled for completion by the end of May.

Move-In Scheduled for Mid-June

As the interior fit-out moves forward, plans are being made for the move-in. By the end of April, furniture installation should be under way, and the moving contractor will have been selected.

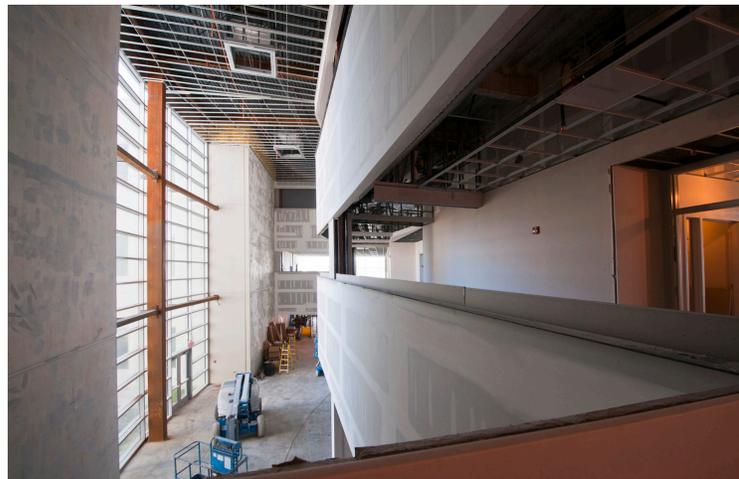
Assuming the construction is completed according to schedule, move-in should begin in mid-June.

The administration wing will be the first area occupied, followed by the laboratory wings. The administrative wing occupants will use the data center and VoIP system as a final validation of the systems' functionality before the additional, significant, load is added from the laboratory personnel and equipment. ❖

Hoyt Matthai is director of operations, Advanced Technology Research Facility.



Above: Laboratory office area in C Wing, the Advanced Technology Program, awaiting installation of cubicles against the windows at left, to allow for maximum natural light. Below: View of the visitors' entrance, taken from the second floor atrium. Doorway to the right opens into the office area of the Information Systems Program, in the administration wing.



Important Telephone Numbers

Ethics Hotline.....	1-800-760-4332
Human Resources Department.....	301-846-1146
SAIC Stock Programs	1-800-785-7764
	or 858-826-4703
SAIC Stock Recorded Information	1-888-245-0104

Dates to Note

Spring Research Festival.....	May 9 and 10
Memorial Day:	
Frederick National Laboratory closed.....	May 28
Independence Day:	
Frederick National Laboratory closed.....	July 4
Take Your Child to Work Day	July 18

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News & Views Article Deadlines

July 2012 issue	May 11	
October 2012 issue	August 17	Please send your information,
January 2013 issue	November 14	articles, or ideas to
April 2013 issue	February 11	news&views@mail.nih.gov

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SAIC-Frederick Provides Matching Contributions to Michelle Shearer STEM Fund

By Ashley DeVine, Staff Writer

With the Michelle Shearer STEM Fund, SAIC-Frederick hopes to make a science, technology, engineering, or mathematics career more accessible to local students.

“I think for so long, science has been for the elite—for those who deserve to be there, for those who earn their way in,” said Shearer, an advanced placement chemistry teacher on leave from Urbana High School to fulfill her duties as the 2011 National Teacher of the Year. “And I’ve never believed that. I think half the battle is just opening the doors and letting the students come in.”

Along with honoring Shearer by creating the scholarship in her name, SAIC-Frederick will also match dollar-for-dollar all contributions to the fund (up to \$10,000).

“The selection of a Frederick County teacher, Michelle Shearer, as National

Teacher of the Year provides a rare opportunity to acknowledge her extraordinary accomplishment, and to catalyze the training of developing scientists in our own community,” said SAIC-Frederick Chief Executive Officer David Heimbrook, Ph.D.

Shearer was on campus in January when Heimbrook announced the creation of the scholarship, managed through the Community Foundation of Frederick County.

“I’m tremendously grateful for this scholarship; it is an honor that the scholarship is in my name. But, more importantly, the scholarship is for the students,” Shearer said.

The scholarship will be awarded yearly to one Frederick County Public High School senior who plans to pursue a STEM career. The first scholarship is scheduled to be awarded in June.

Contributions to the scholarship fund can be made through the Community Foundation of Frederick County’s website, <http://www.cffredco.org/shearer-stem>. SAIC-Frederick employees now have the option of contributing via payroll deduction using the updated Double Our Reach form: http://saicpr.abcc.ncifcrf.gov/files/doubleourreachform_022212_103020.pdf. ❖



Michelle Shearer says student interest in science starts with reaching out to young people and offering opportunities, such as those promised by a new STEM scholarship SAIC-Frederick created in her name.



Our Mission

SAIC Frederick, Inc., operates the Frederick National Laboratory for Cancer Research for the National Cancer Institute, safely conducting research and development to accelerate the translation of basic research discoveries into products that will advance the prevention, diagnosis, and treatment of cancer, infectious diseases, and associated public health concerns.



Frederick

 Please be kind to our environment and recycle.

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