



Model or  
Assistant Director?  
Story on page 12.

# Poster

## From the Director's Office

In the first issue of *The Poster* I described why I thought the NCI-Frederick was a great place to work. A lot of people said they agree, but a lot also reminded me that there is still much we can do to make the NCI-Frederick an even BETTER place to work. Well, we are doing just that and it seems to me that *The Poster* is an ideal forum to describe these efforts.

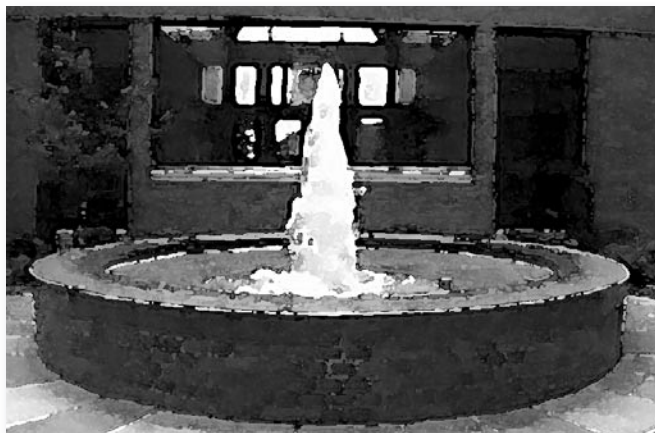
First, we are making a number of changes to the Conference Center and cafeteria. In the Conference Center, we have just recently completed renovations to the Executive Board Room, providing the NCI-Frederick with an exceptional conference room with state-of-the-art audiovisual capability. A complete revitalization of the audiovisual capabilities of the other Conference Center rooms is also planned, ultimately providing the NCI-Frederick with even more state-of-the-art meeting rooms.

We have also recently placed a Comstar automatic teller machine in the Conference Center (just outside of the cafeteria) and plan to have a full-service credit union office in the Conference Center sometime this summer.

This spring we will also be opening up the atrium/fountain area of the Conference Center as an informal gathering/eating area. Keep an eye

out for our "Grand Opening" of this unique area.

We have also made significant efforts to improve the cafeteria. A telephone menu line has been set up (301-846-6699) with daily updates on the lunch items available. We have worked closely with the cafeteria staff to make a number of changes in the presentation and selection of food items. New equipment has been purchased and the menu expanded, in response to your comments on the



Cafeteria Suggestion Web page (<http://web.ncifcrf.gov/campus/committees/cafeeteria.asp>). Keep those ideas coming; we really do appreciate your input!

We've also added a big-screen TV to the cafeteria. You can now catch the latest news, weather or special event in the cafeteria while you enjoy your breakfast, lunch or snack.

We have made significant improvements to other buildings here on the facility, including 325, 376, 434, 469, 538, 549 and 560, and are working with DTP and Charles River to replace the aging barrier buildings

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## From the Director's Office

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at the animal production area. In addition, as you know by now, we are in the early processes of taking down Building 470, which should be completed by early 2004 and replaced with a new area for expanded parking.

Over the next couple of years, we hope to provide even more renovations to these and other buildings here at the NCI-Frederick. Since 1987 the NCI-Frederick has enjoyed a more than 200% increase in our budget and a nearly doubling of staff, but only about a 30% increase in space. Of our existing buildings, 2/3 are now more than 45 years old. Less than ¼ were built in the past 25 years. Maintaining these aging buildings is necessary, but it will be neither cheap nor easy.

However, for the NCI-Frederick to continue to be a great place to work, we will need to make improvements in a number of other areas. One of these areas is parking. And if there is one topic I hear about almost daily, it is parking! This is one problem that will not be solved easily or quickly. We are currently working on a short-term plan to alleviate the parking situation by re-marking some of the existing lots and adding a couple of new small lots. As the NCI-Frederick continues to grow, we will need even more parking. Since there is little, or no, land available for the construction of surface parking, we will need to look into the construction of one or more parking decks, a very expensive alternative. Again, I would appreciate hearing from you regarding any suggestions you

may have to help with this situation ([reynoldsc@ncifcrf.gov](mailto:reynoldsc@ncifcrf.gov)).

Another area that requires additional attention is traffic access to the Fort. The Army garrison has recently opened the Rosemont gate for afternoon outbound traffic and we have discussed several additional changes that could continue to help with the flow of traffic both in the morning and evening rush hours.

Yes, the NCI-Frederick is a great place to work, but there is much we need to do to keep it that way. Can you help with this effort? – you bet! Employee oversight committees have been formed for the cafeteria, library, occupational health clinic, and others.

You can help by actively serving on these committees or by providing suggestions or comments to these committees. Your comments and suggestions are both requested and appreciated.

*Craig Reynolds,  
Director of  
the Office of Scientific Operations*

### *Emergency Preparedness*

An **Emergency Preparedness Committee** has been formed to develop plans to deal with an emergency at the NCI-Frederick. In the case of an emergency, the NCI-Frederick will issue closure information through e-mail, radio and television stations, as well as the Ft. Detrick Telenews (301-619-7611). Information will also be provided through the NCI-Frederick Web site <http://web.ncifcrf.gov>. ♦

## Comings and Goings

**Comings:** We welcome the following employees, who joined NCI-Frederick in January and February.

**Charles River Laboratories:** Carolyn Ambrose, Mary Moberly, Melissa Scott; **Data Management Systems:** Mariusz Lubomirski; **NCI-Frederick:** Celine Pompeia, Kyumgyae Kim, Kevin Lister, Angie Dull, Yasemin Isgor, Ruili Huang, Christopher Zalewski, Mary Kippie, Amanda Garfinkel, Samuel Rulli, Clive Noor, Joseph Walsh, Dmitry Mazarov, Wei Shen, Florian Schabot, Inbal Halperin, Dine Duhouny, Natalia Bromberg, Chun-Ming Benjamin Peng, Teresa Burdette, James Turpin, Ana Gamero, Pawan Tiwary; **SAIC-Frederick, Inc.:** Clarence Reeder, Diana Sampson, Christy Bariatti, Erin McCormick, Dexter Poon, Mark Consentino, Simon Webb, Vidmantas Petraitis, Theodore Luck, Cheryl Charles, Timothy Turner, Lori Marl, Kenneth Weller, Deborah Dobbe, Gareth Dauie, Karissa Jenkins, Sarah Hubka, Wei Gao, Paul Armstad, Janice O'Connor, Rafael Ovuz, Byoung Choi, Paul Mutolo, Paula Mathis, Tammy McCracken, Timothy Miller, Jessica Baer, Christine Williamson, Leo Jenkins, Marbila Blanco, Jennifer Grimes, Erik Nelliai, John Dennis, James Thomas, Sally Hobaugh, David Brashears, Brandon Molnar, Lena Diaw, Jeffrey Ott, Allan Richter, Turnan Halilogu, Thomas Gannon-Miller, Marc Virtue, Liqun Qi, Maurice Roberts, Christopher Demmi. ♦

Zaida Parsons



Jeff Ott



Cheryl Charles



Tim Turner



Sam Rulli



Dmitry Mazurov



Katherin Turner



Yasemin Isgor



Chris Zalewski



**Goings:** Just as we've said "hello" to our new employees, so also we've said "goodbye" to a few. We wish all of them well in their future endeavors.

**Charles River Laboratories:** Jessica Mack; **NCI-Frederick:** Michelle Andrykovitch, Hue Banh, Julie Bitting, Mary Buchanan, Suzanne Bussard, Corinne Camalier, Andrei Chertov, Gina Cremona, Megan Dambach, Michael Dambach, Liya Engeda, Jonathan Freedman, Amanda Garfinkel, Rebecca Henningsgaard, Brent Jewett, James Lipchock, Kevin Lister, Delphine Muriaux, Anh Ngo, Arthur Palmer, Jeong Park, Shengmei Qi, Abigail Shearin, Jennifer Tabler, David Wells, Brad Alger, John Arthur, Tarman Aziz, Carrie Blout, Il Yup Chung, Que Dang, Lutz Froenicke, Kyumgyae Kim, Nicole Knecht, Crystal Koh, Rudolf Medicus, Adhuna Phogat, Shashilkala Ratnayake, Karen Routzahn; **SAIC-Frederick, Inc.:** Kifle Ayele, Faith Ferris, Brian Hixson, Barry Kobrin, Girvan Lyttle, Monica Mathews, Tiffani Moore, Kyle Paradise, Jean-Paul Prentice, Arati Raziuddin, Daniel Rider, Megan Staley, Rebecca Surgeon, Jessica Zalek, Sarah Franks, Trukan Haliloglu, Roza Hodge, Susan Jessee, Adriene D. King, Christina Newman, Kelly McGaha, Erin McKee, Kelly Mihalic, Andrea Moser, Nancy O'Brien, Sean Prigge, Kenneth Sechler, Shellie J. Stoner, Fang Wang. ♦



# Charles River Laboratories (CRL)

## *The Charles River Story*



**Charles River Laboratories**, founded in 1947 by Dr. Henry L. Foster, who today continues to serve as our Chairman, is the world's foremost commercial breeder of laboratory rodents, including specially bred mice, rats, guinea pigs, and hamsters. We also sell other animal models, products, and services. Our customers are primarily pharmaceutical research institutions.

We breed and raise our animals under controlled conditions, using sophisticated technology and practices. Since diseased or genetically non-uniform colonies can invalidate research results, these factors are essential in providing our customers with the best possible animals for their research. For the last 50 years, Charles River's products and services have continued to define the state of the art in this field.

Since 1947, Charles River has grown from a small business to a multi-national corporation, and on June 23, 2002, Charles River opened for public trading on the New York Stock Exchange. We continue to see positive financial results through acquiring related biotechnology companies and expanding our market share.

## *The Charles River Values*

**Employees:** We will treat every employee with dignity and respect and provide the tools for their long-term success.

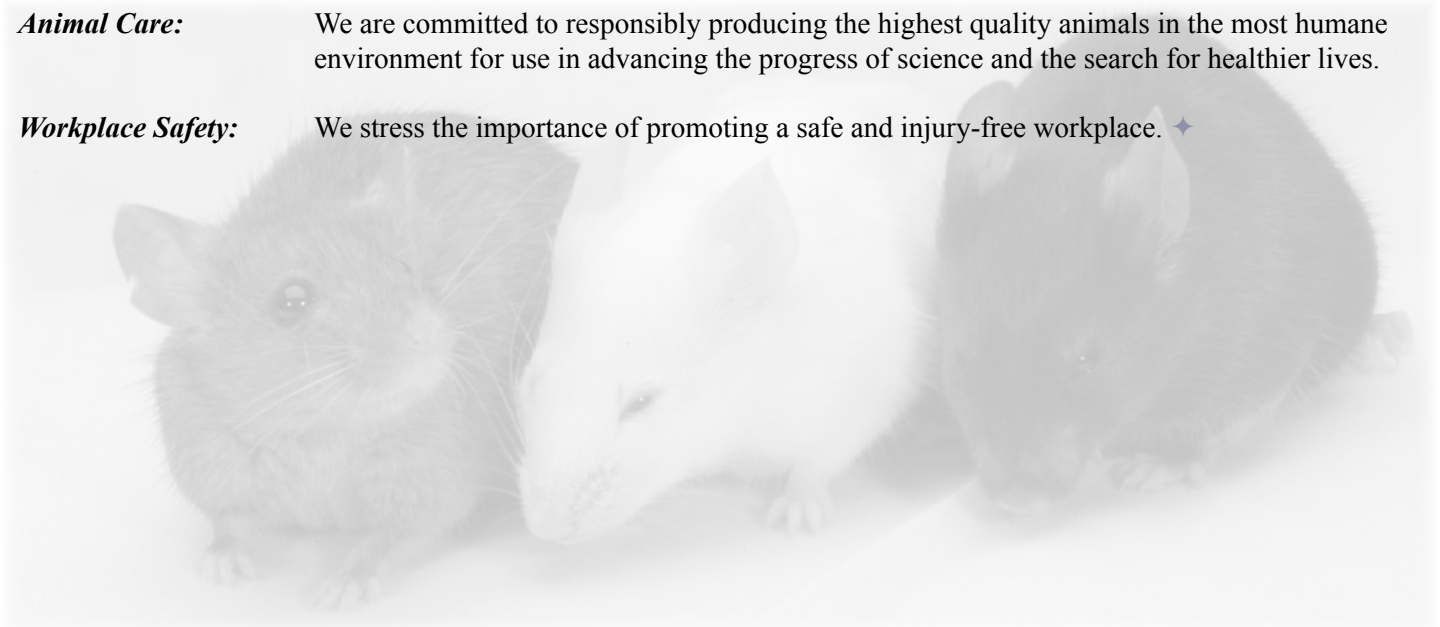
**Customers:** We will always give our customers more than they expect.

**Teamwork:** We are committed to constant improvement through teamwork.

**Flexibility of Thought:** We encourage all Charles River employees to act as owners and to contribute ideas and solutions without fear of repercussion.

**Animal Care:** We are committed to responsibly producing the highest quality animals in the most humane environment for use in advancing the progress of science and the search for healthier lives.

**Workplace Safety:** We stress the importance of promoting a safe and injury-free workplace. ✦



## Data Management Services (DMS)

You may already be familiar with DMS: DMS has managed the *Computer and Statistical Services (C&SS)* contract for the last 16 years, and we remain committed to providing a wide array of information science expertise to further the mission of the NCI-Frederick.

You may also know us from the 21 years we successfully managed the NCI-Frederick Scientific Library. DMS chose not to compete for the Library contract during the last competition, but many of the staff members recruited and trained by DMS remain at the Library today. We wish the new contractor the best of luck and are sure they will continue the long tradition of excellence established by DMS.

Although perhaps most widely known for our Microcomputer Support service, C&SS also offer many other services to the NCI-Frederick community. In this issue of *The Poster* we highlight some of the other services available from C&SS.

### *Statistical Consultation*

The Statistical Consultation group provides a wide array of mathematical and statistical consulting services to the NCI-Frederick scientific community. The Director and consulting statisticians collaborate with principal investigators through all facets of the scientific process: from development and formulation of research and statistical hypotheses through design of experiments and statistical analyses, preparation of technical reports and modern graphics, to preparation of formal scientific documents and publications in peer-reviewed journals.

### *Custom Software Development*

Our team of analysts and developers employ the most modern methodologies and tools to create custom software solutions to meet

the unique needs and requirements of the NCI-Frederick. Our staff can assist you with both administrative and scientific programming needs as well as Web design and development services. Visit the C&SS Web site at <http://css.ncifcrf.gov> or call 301-846-1060 for more information about custom development services available from C&SS.

### *Technology Advocacy and Consultation*

As the NCI-Frederick's information technology experts, C&SS continually explores and evaluates new technologies that could benefit the user community and further the mission of the NCI-Frederick. C&SS staff would be happy to meet with you to discuss your specific technology needs.

### *Computer Software Training*

The Spring/Summer semester of computer software training classes is already underway. Several new courses have been added to complement the extensive list of classes offered to NCI-Frederick employees. Please see the Computer Software Training Web site at <http://css.ncifcrf.gov/training> for more information or to register for classes.

### *Computer Services Helpdesk*

The Computer Services Helpdesk provides the NCI-Frederick community with a single point of contact for computer assistance, information, service, and support. The Helpdesk is staffed from 8:00 a.m. to 5:00 p.m., Monday to Friday, excluding NCI-Frederick holidays. Requests for service can also be placed via the C&SS Web site (<http://css.ncifcrf.gov/helpdesk>) 24 hours per day, seven days a week.

### *New Site-Licensed Software Available from the Helpdesk!*

In our last issue, we announced the availability of both the EndNote and RefManager citation manager systems. We are now pleased to announce that Adobe Acrobat, SAS (for Windows), and JMP join the growing list of site-licensed software freely available from the Computer Services Helpdesk. Please contact the Helpdesk to borrow the software or request installation assistance. ♦

#### **Contacting C&SS**

Computer Services Helpdesk  
Web: <http://css.ncifcrf.gov/helpdesk>  
E-mail: [helpdesk@css.ncifcrf.gov](mailto:helpdesk@css.ncifcrf.gov)  
Phone: 301-846-5115

Hours of Operation:  
8:00 a.m.-5:00 p.m., Monday through Friday

NCI-Frederick Webmaster  
Phone: 301-846-6700  
E-mail: [webmaster@css.ncifcrf.gov](mailto:webmaster@css.ncifcrf.gov)

Other Inquiries  
Phone: 301-846-1060

## Student Orientations

Every June the Scientific Library staff offers specialized Student Orientations designed especially for high school and college students who are new to NCI-Frederick. In a Student Orientation, students are introduced to the Library's services and programs that can help them in their scientific and technical work. Students also learn how to interpret bibliographic citations, and how to find journals and books on the Library's shelves and on the Library's Web site. For information about this year's Student Orientations, please contact the Scientific Library at 301-846-1093, or stop in Building 549. ♦

## Science in the Cinema

Beginning in April and continuing through August, the Scientific Library offers our entertaining and informative Science in the Cinema program.

This program combines a movie with audience discussion, both centering on a scientific or medical theme. During the program the audience views a feature-length movie. Following the movie, a guest speaker with interest or expertise in the film's subject gives an informal talk about the movie's theme and encourages the audience to participate with comments and questions.

In July, we will present a variation of the Science in the Cinema program, titled "Scientific Movie Clips Contest." Instead of showing a full-length movie, this variation will show many short clips from various movies with scientific or medical themes. Audience members will identify the movies and/or the actors, and write their answers on contest forms. Prizes may be awarded to the top winners.

Attending these Science in the Cinema programs allows audience members, particularly students, to gain a deeper understanding of how

relevant the work here at NCI-Frederick can be to the outside world. Attendees learn, in a fun way, how science affects so many different facets of our lives! ♦

## Visa Renewals

The staff of the Scientific Library can help with visa renewals by performing cited reference searches. A cited reference search provides information about a specific journal article by listing citations to journal articles whose authors have cited that initial article in their bibliographies. The Library staff provides both a printed copy and an electronic file of these references in an acceptable bibliographic format. We also provide an official letter that authorizes the search and its results. This packet of printed references, electronic file, and authorized letter can then be presented to the appropriate authorities during the visa renewal process to help validate your professional work. ♦

## Who's Who

*Editor's note: Last issue we brought you information about half of the talented WISCO staff. Here's the "rest of the story"!*

**Pam Zimmerman**, our Serials Technician, has managed our growing journal collection since March 18, 1991, taking up where Alice Young, Technical Services department, left off. In her leisure, Pam teaches Sunday School and says that she stays busy keeping ahead of her junior high class, who teach her as much as she teaches them!

**Debby McCalpin** has an hour-long commute. Debby is a wilderness and hiking enthusiast, and enjoys exploring national parks in Canada and the US. When she can't be in the mountains, she fulfills her love of

wildlife by enjoying the deer, foxes and bats in her backyard as well as her three "wild" indoor cats. Debby has been with us since May 10, 1993, and oversees the daily operations of the Library as its Director.

If **Martha Summers** could be anywhere other than a Library, it would probably be a cave! She became interested in spelunking while camping overnight in a cave with her Girl Scout troop. Fortunately, she escaped from underground and became one of our staff on September 21, 1993, first as a Library Aide and now as Document Delivery Technician.



Actually the longest-serving of our present Library Aide entourage, **Donnie Hips** joined us on December 4, 1997. When not keeping track of patron needs during our evening and weekend hours, Donnie manages the Warehouse and Mailroom operations for a large aviation firm here in Frederick. In his spare time, he enjoys exploring the woodlands of his boyhood southern Virginia.

**Lee Redmond** followed right behind Donnie, becoming a member of the Library staff on December 10, 1997, as another Aide. Lee has her hands full bringing up her two young children, and we are lucky she is able to fit us into her busy schedule. When not doing the "Mom" thing, Lee, a genealogy buff, creates scrapbooks and researches the history of her family.

**Elena Zdanova** joined the Interlibrary Loan department on December 15, 1997, our third hire during that busy month. Still captivated by stories of the fantastic as an adult, Elena

## Wilson Information Services Corporation (WISCO)

developed an interest in folk tales while a teenager, painting murals of fairy tale characters on the walls of her sister's kindergarten classroom, located just outside her native Moscow.

Our Technical Services Clerk, **Alison Snyder**, joined our staff nearly five years ago, August 15, 1998, when she began as a Library Aide. From Frostburg, MD, Alison earned a BA in Political Science/Justice Studies at Frostburg State University. In her spare time, she likes to travel.

**Yolanda Goines**, who joined the Interlibrary Loan team on August 17, 1998, just two days after Alison came, was first chair violinist in the All County Orchestra several years in a row while in Junior High School. She says she no longer plays, but the staff is hoping to talk her into bringing her instrument along one day. If you hear music coming from our building, you will know we succeeded.

**Vicki Sipe** is actually a farm girl at heart and enjoys entertaining her coworkers with tales of her experiences behind the wheel of a 1953 Ford Jubilee tractor while growing up in the Midwest. She has since traded in her green thumb for a camera, and become an accomplished plant photographer. Vicki came to the Library on September 7, 1999, as Public Services Librarian, but when the opportunity to take over cataloging duties came along, she moved to Technical Services. Keeping everything in order is her forte.

**Beverly Creager** plays hand bells in her church choir, and cares for her five (!) Huskies when not either at her full-time day job with Charles River, or here in the Library as one of our Library Aides, which she became on August 26, 1999.



Two of our Library Aides joined the staff almost exactly one year apart; **Elaina Skovira** came to NCI-Frederick on September 25, 2000, and **Jolaina Page** arrived on September 10, 2001. Both have full-time day jobs. Elaina is an elementary school teacher at a private school in Emmitsburg; she has always been interested in medicine, however, and was once a student nurse, so her evenings and weekends spent surrounded by medical literature keep her in touch with her avocation. Jolaina is an accountant for a local entertainment firm. Like Darlene, Jolaina is an animal lover, and has a menagerie of interesting pets, including a pig!

**Joy Siegel**, originally from Wisconsin, became our Public Services Librarian on February 12, 2001. Joy earned a BA in East Asian Studies and a Master's in Library Science from the University of Wisconsin-Madison. Before coming to NCI-Frederick, Joy worked at the Environmental Protection Agency and the Advisory Board Company in Washington, DC. She and her husband, Paul, are restoring a house in Frederick. In her free time, she enjoys gardening and horseback riding.

Always full of energy, **Hungyune Chao** likes activities such as hiking and climbing, that keep her busy when she is not working. ♦





## *SAIC Donates to Frederick County Public School Science Program*

On behalf of SAIC-Frederick, Inc., and its employees, Dr. Larry Arthur, president, recently donated \$20,000 for the **Frederick County Public School System's Earth and Space Science Laboratory (ESSL)**. The funds will be used to upgrade the classroom's technology, displays, and equipment.

Now in its 40th year, ESSL provides students in grades one through five with experience in astronomy, geology, oceanography, and meteorology. According to a recent article in the Frederick News-Post, more than 15,000 students and 650 teachers visit ESSL each year.

A donation of \$10,000 was also made to the MdBio Mobile Science Laboratory. This laboratory will visit high schools throughout Maryland and introduce students to careers in the life sciences.

These donations underscore SAIC-Frederick's commitment to the local community and directly affect the quality of education available to the children of its employees. ♦



## *HLA Typing Section Wins Corporate Publication Prize*

The SAIC Corporate 2003 **Executive Science and Technology Council (ESTC)** recently awarded the Corporate Publication Prize to Drs. Mary Carrington, M. Patricia Martin, and Xiaojiang Gao, HLA Typing Section, Basic Research Program, "for outstanding publication in biology within the entire SAIC Corporation." Their paper, "Epistatic interaction between KIR3DS1 and HLA-B delays the progression to AIDS" (Nature Genetics 31:429-434), was one of several submitted to the 19th annual SAIC Corporate ESTC Contest in Biochemistry and Molecular Biology.

The contest honors the best SAIC papers published in peer-reviewed journals, as well as books published by SAIC authors. Submissions are judged on originality of work, significance of results, and effectiveness of presentation.

The ESTC serves as an advisory group to Dr. J. Robert Beyster, Chairman of the Board and CEO of SAIC Corporate. ♦

## *Scientific Publications, Graphics & Media (SPGM) Staff Garner Awards*

Four SPGM staff members earned awards in the BioImages competition presented March 1 at BIOCOMM 2003 in Las Vegas:

Best of Show, Still Media division: "Fungi Squared," Jonathan Summers.

Award of Excellence, Still Media, General Illustrative category: "Fungi Squared," Jonathan Summers

Citation of Merit, Graphics category: "KIR Spine Poster," Al Kane and Carolyn Whistler

Citation of Merit, Still Media, Specimen category: "Tumor in Harderian Gland (Mouse)," Richard Frederickson

In addition, Ken Michaels, Manager of Visual Communications, was a presenter at the Mid-Atlantic Biocommunicators 2003 Regional Conference, Baltimore, in March. His topic was "Change and the Role of the Biocommunicator." Held at Davidge Hall at the University of Maryland and the R. Adams Cowley Shock Trauma Center in Baltimore, the meeting was jointly sponsored by the Association of Medical Illustrators, the Chesapeake chapter of the BioCommunications Association, and the University of Maryland at Baltimore. Jonathan Summers and Allen Kane won one of two popular-vote awards given for exhibits at the conference; "Liquid Glass" was voted best in the photography category. ♦



## *Science Today... in the Clinical Proteomics Reference Laboratory*

Ovarian cancer knows no social, ethnic or financial bounds. Because this disease is difficult to diagnose in the early stages, making overall survival rates low, some women at high risk for the disease choose to have their ovaries removed as a “preventative” measure; however, survival rates are greater than 90% if the disease is discovered and treated in the early stages.

Currently, the only tests available to diagnose ovarian cancer are ultrasound (the same technique used to visualize a fetus at early stages of pregnancy) and a blood test that is only partially sensitive. Now, though, a recent discovery holds promise for more accurate diagnosis.

Researchers at the National Cancer Institute, in collaboration with the FDA under Drs. Lance Liotta and Emanuel Petricoin, demonstrated the feasibility of using a proteomic pattern for early diagnosis of ovarian cancer. This method involves generating a measurement by mass spectroscopy of all the low molecular weight proteins present in the serum and measuring not only the presence or absence of specific proteins but also their signal or quantity, creating a kind of protein “bar code.”

What was then needed was a “bar code reader” to interpret these patterns. In the initial studies, a computer looked for differences in data generated from sera from cancer patients and cancer-free patients. The computer then generated an algorithm to recognize those differences. Then, when it was fed data generated from the sera of “unknowns,” it could determine with a high degree of accuracy whether or not the serum came from a cancer patient. This finding generated so much excitement that both NBC and ABC

evening news programs featured it. A congressional resolution (resolution 385, 107th Congress), urging the federal government to validate these findings and make them available to the public as quickly as possible, was also passed.

Using a high resolution mass spectrometer, the scientists continued to investigate the method in collaboration with Drs. Tim Veenstra and Tom Conrads at SAIC-Frederick, Inc. The mass spectrometry increased the amount of data on each patient sample to approximately 350,000 different peaks, or bars on the barcode. Re-examining the computer software to decipher the code, we found that patients could be classified as having cancer or no cancer with 100% accuracy, including all patients in the early stage 1 of the disease. This finding is being published.

As a result of this work, the ***Clinical Proteomics Reference Laboratory (CPRL)*** has been established in Gaithersburg, with Dr. Gordon Whiteley as director. The CPRL’s mission is to develop and obtain FDA approval for Proteomics pattern recognition tests for ovarian cancer, followed by a series of other tests currently in research. The test must be robust, consistently reproducible, and generate a substantial amount of data to present to the FDA for approval as a test method that any laboratory in the country could run. This would be the first FDA-approved test to screen patients for the presence of ovarian cancer.

The initial project development will integrate sample handling equipment, reagents, mass spectrometry and data analysis software that all must meet rigorous FDA standards. We will begin where the research has led us from feasibility of the test concept using the instrumentation that was successful in finding the patterns initially: the sample collection protocol, robotic sample processing, mass spectrometry

analysis and pattern generation, the software that analyzed the profile and the final result. Each component will need to be developed and integrated so it works as a system.

In addition, the Clinical Laboratory Improvement Act mandates that controls be run each day that the instrument is used. If these controls show a problem, then a calibration must be performed. The reagents for these controls and calibrators will need to be formulated and developed as reliable markers of the system performance. Once we have completed these tasks, we will then need to validate the system so that it can be proven as a diagnostic method and documented so that the FDA can review the performance and approve the method to be the first screening test for ovarian cancer.

From the time the test is validated to general approval by the FDA, the CPRL will be the center for testing samples from individuals and reporting the results to the ordering physician. Once approval is obtained, any laboratory can then follow the procedures, using the prescribed equipment to run the test. The method will then be made commercially available through large clinical labs to the public and our mission for this test will be complete.

The CPRL staff are proud to be associated with this project. This simple blood test used as a tool for early diagnosis has the potential to help patients quickly, leading to a cure. The marriage of biology, mass spectroscopy and high-powered computer analysis has given us the tools to make this possible, and we look forward to the day that many of these tests are used routinely to improve patient care. ♦

*Dirk Daelemans, Ph.D.*

**Dr. Dirk Daelemans**, formerly a guest researcher in Dr. Pavlakis' laboratory, received his Ph.D. in Biotechnology from the prestigious Rega Institute of Medical Research, Leuven, Belgium, in 2000. As a



postdoctoral fellow, he received a D. Collen Research Foundation and Belgian American Educational Foundation, Inc., Fellowship Award (2000-2001).

Dr. Daelemans studies cellular trafficking of proteins and the development of new methodology to study interactions in live cells in real time, and has devised assays to probe Rev interactions. He has collaborated with the Confocal Microscopy group, Image Analysis Laboratory, at NCI-Frederick, in some of this work.

Previous work from the Pavlakis and Felber laboratories has shown that Rev is an essential protein of HIV. Even a partial block of Rev function leads to virus attenuation; therefore, a drug inhibiting Rev partially is expected to convert HIV to a non-pathogenic infection.

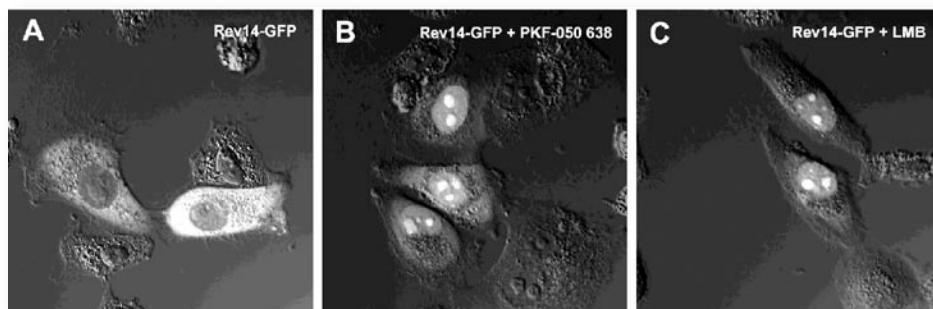
The work in this PNAS paper highlights the discovery of a new inhibitor of nucleo-cytoplasmic protein export discovered and

*Daelemans, D., E. Afonina, J. Nilsson, G. Werner, J. Kjems, E. De Clercq, G.N. Pavlakis, and A.M. Vandamme*

### *A Synthetic HIV-1 Rev Inhibitor Interfering with the CRM1-Mediated Nuclear Export*

*Proceedings of the National Academy of Sciences of the United States of America, 2002. 99(22):14440-14445*

The HIV-1 Rev protein is an essential regulator of the HIV-1 mRNA expression that promotes the export of unspliced and partially spliced mRNA. The export receptor for the leucine-rich nuclear export signal (NES) of Rev has recently been recognized as CRM1. We identified a low molecular weight compound PKF050-638 as an inhibitor of HIV-1 Rev. This drug inhibits in a dose-dependent fashion Rev-dependent mRNA expression in a cellular assay for Rev function. We show that PKF050-638 is an inhibitor of the CRM1-mediated Rev nuclear export. By using a quantitative in vitro CRM1-NES cargo-binding assay, we could demonstrate that PKF050-638 disrupts CRM1-NES interaction. This mode of action is confirmed in cell culture because the drug reversibly interferes with the colocalization of CRM1 and Rev in the nucleolus of the cell. In addition, we prove that the inhibition is through direct interaction of the compound with Cys-539 of CRM1. These effects are similar to those of the known CRM1 inhibitor leptomycin B and suggest that the inhibitory effect of the compound is caused by binding to CRM1 at a similar site. The compound displayed strict structural requirements for its activity, as its enantiomer was inactive in all assays tested. These results show that we identified a drug that interferes with the CRM1-mediated nuclear export of Rev through inhibition of the CRM1-NES complex formation. The reversibility of its binding to CRM1 and its availability through chemical synthesis could make it useful for studying CRM1-mediated export pathways. ♦



characterized using the Rev functional assays. This inhibitor is of interest to workers in the export field because it is the first synthesized chemical entity

with specificity for the export receptor CRM1. The reversible inhibitor should be useful in many experiments. ♦

The following articles have been selected from a quarterly listing of publications in the top eight science journals.

## AIDS Research

**Identification of specific HIV-1 reverse transcriptase contacts to the viral RNA: tRNA complex by mass spectrometry and a primary amine selective reagent.**

Kvaratskhelia M, JT Miller, SR Budihas, LK Pannell, and SFJ Le Grice. *Proc Natl Acad Sci U S A*, 2002. **99**(25):15988-15993.

**Gene expression and viral production in latently infected, resting CD4<sup>+</sup> T cells in viremic versus aviremic HIV-infected individuals.**

Chun TW, JS Justement, RA Lempicki, J Yang, G Dennis, Jr., CW Hallahan, C Sanford, P Pandya, S Liu, M McLaughlin, LA Ehler, S Moir, and AS Fauci. *Proc Natl Acad Sci U S A*, 2003. **100**(4):1908-1913.

## Apoptosis

**Using cyclooxygenase-2 inhibitors as molecular platforms to develop a new class of apoptosis-inducing agents.**

Zhu JX, XQ Song, HP Lin, DC Young, SQ Yan, VE Marquez, and CS Chen. *J Natl Cancer Inst*, 2002. **94**(23):1745-1757.

**Apocytocrome c blocks caspase-9 activation and Bax-induced apoptosis.**

Martin AG and HO Fearnhead. *J Biol Chem*, 2002. **277**(52):50834-50841.

## Cytokines

**Distinct contributions of TNF and LT cytokines to the development of dendritic cells in vitro and their recruitment in vivo.**

Abe K, FO Yarovinsky, T Murakami, AN Shakhov, AV Tumanov, D Ito, LN Drutskaya, K Pfeffer, DV Kuprash, KL Komschlies, and SA Nedospasov. *Blood*, 2003. **101**(4):1477-1483.

## Genetics

**DNA methylation maintains allele-specific KIR gene expression in human natural killer cells.**

Chan HW, ZB Kurago, CA Stewart, MJ Wilson, MP Martin, BE

Mace, M Carrington, J. Trowsdale, and CT Lutz. *J Exp Med*, 2003. **197**(2):245-255.

**Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.**

Collins FS. *Proc Natl Acad Sci U S A*, 2002. **99**(26):16899-16903.

**The solitary wave of asexual evolution.**

Rouzine IM, J Wakeley, and JM Coffin. *Proc Natl Acad Sci U S A*, 2003. **100**(2):587-592.

**Synergism between INK4a/ARF inactivation and aberrant HGF/SF signaling in rhabdomyosarcomagenesis.**

Sharp R, JA Recio, C Jhappan, T Otsuka, SQ Liu, YL Yu, WJ Liu, M Anver, F Navid, LJ Helman, RA DePinho, and G Merlino. *Nat Med*, 2002. **8**(11):1276-1280.

**Incorporation of uracil into minus strand DNA Affects the specificity of plus strand synthesis initiation during lentiviral reverse transcription.**

Klarman GJ, X Chen, TW North, and BD Preston. *J Biol Chem*, 2003. **278**(10):7902-7909.

**Ru2 and Ru encode mouse orthologs of the genes mutated in human Hermansky-Pudlak syndrome types 5 and 6.**

Zhang Q, BH Zhao, W Li, N Oiso, EK Novak, ME Rusiniak, R Gautam, S Chintala, EP O'Brien, Y Zhang, BA Roe, RW Elliott, EM Eicher, P Liang, C Kratz, E Legius, RA Spritz, TN O'Sullivan, NG Copeland, NA Jenkins, and RT Swank. *Nat Genet*, 2003. **33**(2):145-153.

**Placental mammal diversification and the Cretaceous-Tertiary boundary.**

Springer MS, WJ Murphy, E Eizirik, and SJ O'Brien. *Proc Natl Acad Sci U S A*, 2003. **100**(3):1056-1061.

## Immunology

**c-Cbl and Cbl-b regulate T cell responsiveness by promoting ligand-induced TCR down-modulation.**

Naramura M, IK Jang, H Kole, F Huang, D Haines, and

H Gu. *Nature Immunology*, 2002. **3**(12):1192-1199.

## Protein Chemistry

**Crystal structure of interleukin-19 defines a new subfamily of helical cytokines.**

Chang CS, E Magracheva, S Kozlov, S Fong, G Tobin, S Kotenko, A Wlodawer, and A Zdanov. *J Biol Chem*, 2003. **278**(5):3308-3313.

**Structural basis for the substrate specificity of tobacco etch virus protease.**

Phan J, A Zdanov, AG Evdokimov, JE Tropea, HK Peters III, RB Kapust, M Li, A Wlodawer, and DS Waugh. *J Biol Chem*, 2002. **277**(52):50564-50572.

**ATPase activity of p97-valosin-containing protein (VCP) - D2 mediates the major enzyme activity, and D1 contributes to the heat-induced activity.**

Song CC, Q Wang, and CCH Li. *J Biol Chem*, 2003. **278**(6):3648-3655.

**Levels of phospho-Smad2/3 are sensors of the interplay between effects of TGF-beta and retinoic acid on monocytic and granulocytic differentiation of HL-60 cells.**

Cao ZH, KC Flanders, D Bertolette, LA Lyakh, JU Wurthner, WT Parks, JJ Letterio, FW Ruscetti, and AB Roberts. *Blood*, 2003. **101**(2):498-507.

## Cellular Transformation

**Inorganic arsenite-induced malignant transformation of human prostate epithelial cells.**

Achanzar WE, EM Brambila, BA Diwan, MM Webber, and MP Waalkes. *J Natl Cancer Inst*, 2002. **94**(24):1888-1891. ♦



## Did You Know...?

### *Did You Know?*

The first **Spring Research Festival** was held on May 21 and 22, 1997. The original event featured over 200 exhibits and was co-sponsored by the National Cancer Institute, the Department of Defense and the U.S. Department of Agriculture. The festival was open to the public and was unique in that the format not only encouraged participation from scientists and postdoctoral fellows, but was one of the first major venues to encourage laboratory technicians and student interns to present their work to the general public.

The original research festival divided the presentation topics into eight areas of interests: New Technology, Genetics, Cancer Biology, Biochemistry, Scientific Services, Cell Biology, Immunology and Virology. Four areas were presented on the first day and four on the second. Dr. Howard Young, the organizer of this first festival, was quoted in the local publications as saying “We want to let people know what they’re paying for [through their tax dollars].”

As with the current research festival, the latest research in cancer, HIV and AIDS was presented to curious Frederick residents, Fort Detrick scientists, and school children. The associate director of what was then the Frederick Cancer Research and Development Center, the late Dr. Donald Summers, said, “Scientists are ivory-tower types. They’re devoted to their work, and they’re guilty of not coming out in public more frequently.” So scientists were encouraged to use plain English in describing their work in the hope that non-technical individuals would be able to understand the work being performed in both NCI and Army laboratories.

The event was as special then as it is today and, yes, they did have T-shirts (the original idea for T-shirts came from Dr. Bert Zbar). Anyone wanting to see the entire collection of Spring Research Festival posters can visit Dr. Howard Young’s office in Bldg. 560, Rm. 3123. ♦



*Jon Oyhus, DMS, models a tee shirt from the first Spring Research Festival in 1997.*

### *Sixth Annual Farmers’ Market Opens June 17th*

The Fort Detrick Farmers’ Market, which began in 1998, will have an extended 2003 season. The Market will open on Tuesday, June 17th, and close on Tuesday, October 28th. Because the vendors had such a good year at our Market last summer, many of them requested an extended season. The Market will be located in front of Building 549 every Tuesday from 11:00 a.m. until 1:30 p.m. An employee crafter will again be featured weekly at the Market. Your support is appreciated—please remember that our vendors still have lots of wonderful goods to sell after Labor Day and into early fall. ♦



## Did You Know...?

### *Building 560 Babies*

Spring has meant a real celebration for Building 560. Six staff members have enlarged their families, five of them within the same three-month period.



Shown left to right are:

Dr. Dobravka Kufrin and Dr. Goran Periz, both CRTA, RCGL, with their daughter, Isabella Kufrin-Periz, born November 11, 2002; Roberta Benvenuti and Dr. Vincenzo Coppola, MCGP, with their son, Oscar Gennard Coppola, born February 13, 2002; Maria Gutierrez and Dr. Pedro Esteban, MCGP, with their son, Pablo Esteban, born October 16, 2002; Arianna Audisio and Dr. Leo Solorzano, RCGL, with their son, Leonardo Sebastian Solorzano, born December 6, 2002; Dr. Lino Tessarollo, MCGP, and Dr. Esta Sterneck, RCGL, with their daughter, Stella Tessarollo, born October 15, 2002; and Shikha Sharan, RCGL, and Dr. Shyam Sharan, MCGP, with their daughter, Rishita Raagavi Sharan, born October 23, 2002. ♦

### *50th Anniversary of DNA*

April 2003 marked the 50th anniversary of Watson and Crick's Nobel Prize winning description of the DNA double helix and is the historic culmination of the sequencing of the human genome. To celebrate, the National Human Genome Research Institute (NHGRI) and other Institutes within NIH hosted several scientific symposia in Bethesda.



These included a Scientific Symposium: From Double Helix to Human Sequence—and Beyond (April 14-15); and Genetic Variation and Gene Environment Interaction in Human Health and Disease, sponsored by the National Institute of Environmental Health Sciences (NIEHS), along with NHGRI and NIAAA (April 16). This event focused on an in-depth consideration of DNA variation. Talks on the future use of DNA variation in gene-environment interaction research and its

implications to human disease were also presented. ♦

### *Thirty-Year Celebration Edition*

*The Poster* will publish a special Thirty-Year Celebration edition to commemorate the last 30 years of NCI-Frederick. If you are like many of us, you have a couple of photo albums or a shoebox filled with old pictures and a ton of memories. Share your memories with us by sharing your pictures.

So, grab a cup of coffee, pick out your favorite photos, and bring them to Scientific Publications, Graphics and Media (SPGM), Building 362. We will copy the photographs and return them to you. We'll incorporate as many as possible into the Thirty-Year Celebration edition of *The Poster*.

For further information, call Maritta Grau, SPGM editor, x1055. ♦

## Did You Know...?

*Q: When do I get BLOODWORK\*?*

A: “Those on special surveillance programs will be provided notifications annually, those not on special surveillance programs\*\* will get notices every three years, regardless of age.”

- \* Bloodwork is the generic term for periodic health surveillance, which is voluntary unless indicated on your notification letter because of a regulatory requirement.
- \*\* Those not on special surveillance programs include administrative staff and some government positions.

### *The Poster News Stands*



*Misplaced your copy of The Poster? Want an extra copy to send a friend? Have a suggestion for us? Stop by one of our news stands to pick up your copy or fill out a suggestion card. You'll find these stands in the foyers outside Security and Occupational Health Services in Building 426, and in the foyers outside the NCI-Café and the Scientific Library in Building 549. Our thanks to Eddie Currens, Facilities, Maintenance and Engineering, who built the stands, distributed them, and filled them with Posters. ✦*





## Community Outreach

### *The Werner H. Kirsten Student Intern Program*

The **Werner H. Kirsten Student Intern Program (SIP)** at the National Cancer Institute at Frederick provides high school seniors experience in research and administrative management in a health care environment. The scientific interns experience the basic methods of cancer research through “hands-



*Adam Day, who interns with Robin Winkler-Pickett, Leukocyte Cell Biology Section, Laboratory of Experimental Immunology, checks the progress of an experiment.*

on” laboratory training, while administrative management interns are assigned projects in budget, personnel, information technology, graphics, and media.

The program, which began in 1997, is open to students within the Frederick County and Washington County Public School Systems and St. John’s Literary Institute at Prospect Hall. To be eligible for the SIP, a student must be at least 16, a high school junior (when applying), have an overall grade point average of 3.0 or better, and must be a U.S. citizen or permanent resident.

Scientific interns work full time (40 hours per week) for nine consecutive weeks during the summer (training period) and receive a stipend of approximately \$2,900. Administrative interns are not required to work during the summer, and, therefore, do not receive a stipend. All interns work three hours per day during the school year as student volunteers (no stipend) and receive graduation credit.

Washington County joined Frederick County in the program during the past (2001-2002) school year, while St. John’s at Prospect Hall has joined for the current school year.

Students and sponsors are joined through a “matching” process. The Program currently has 37 mentors sponsoring 40 students, with one student from St. John’s, two from Washington County, and the remaining 37 from Frederick County.



*Lynn Iaccarino, who interns with Dr. Howard Young, Cellular and Molecular Immunology Section, Laboratory of Experimental Immunology, pauses in her work at the microscope.*

The 2003-2004 SIP consists of 38 sponsors for 54 students from the three participating school systems. Please see [http://web.ncifcrf.gov/careers/student\\_programs/internships/SIP.asp](http://web.ncifcrf.gov/careers/student_programs/internships/SIP.asp) if you would like additional information about the program. ♦

### *NCI Fellowship Office on Frederick Campus*

Now you don’t have to travel to Bethesda to get information about fellowships and fellowship mentoring. The **NCI Fellowship Office**, located in Building 578, is open the second and fourth Mondays of each month. If you are a Fellow, a mentor, or serve in any other capacity in which the Fellowship Office can help or advise you, please take advantage of this service available to both NCI and contract employees. Although appointments are not necessary, they are recommended and can be made by calling the NCI Fellowship Office at 301-496-4796. ♦

# Environment, Health, and Safety Program

## NCI-Frederick Travel Medicine Program

As the long winter darkness and cold fade to another year's memory, our thoughts turn to summer travel. Yet how easily the dream of that once-in-a-summertime experience can be ruined by an unexpected health problem. For most travelers staying in resort areas, simple preparations, information and precautions can eliminate or reduce the risk of a vacation ruined by illness. However, when venturing outside North America or Western Europe, more time and consideration are needed to protect your health.

Each year hundreds of thousands of people journey to countries where diseases such as malaria, typhoid and dengue fever still pose serious threats. In these areas, whether you're seeking sun and sand or traveling for official business, you need to take extra precautions to safeguard your health.

The risk of contracting a disease or illness while traveling depends on several factors:

Factor	Lower Risk	High Risk
Geographical location	Developed countries	Developing countries
Length of stay	Less than 4 weeks	More than 4 weeks
Location within country	Urban	Rural
Type of accommodation	Luxury	Economy

**Occupational Health Services (OHS)** provides up-to-date travel medicine to all NCI-Frederick government and contractor employees. Staff stay up to date on developing health issues worldwide, including the recent outbreaks of an upper respiratory condition that seems to defy the medical community. Services include detailed advice on travel safety, immunization, and disease prevention.

- If the trip is official business, expect to be offered vaccines recommended by the Centers for Disease Control and Prevention, malaria prevention medication, and a customized first-aid kit.
- Employees planning personal travel may receive routine immunizations, destination-specific advice, and a first-aid kit. Referrals to travel clinics and local health departments providing travel medicine programs are also provided.

Some immunization series can take up to eight weeks, so it is very important to contact OHS or a health care professional for an appointment well in advance. As always, OHS provides its services at no cost to the employee. For more information on travel medicine, please contact Mary Carol Fleming, CRNP, 301-846-1096. ♦

## NCI-Frederick Recycling



Why add to the problem when you could be part of the solution? Many materials we use at NCI-Frederick can be recycled, including paper, aluminum, cardboard, printer cartridges, batteries, glass, photopaper and much more!

**EHS's Waste Management** has provided a Web page to answer your questions about what, where, and how your items can be recycled; information on items that can and cannot be recycled; how to prepare your products for recycling; a listing of where and when the Army staff picks up paper and other recyclables; and a map to the nearest outside bin or dumpster.

Check out the new page located at <http://web.ncifcrf.gov/campus/safety/recycling>. For questions about items not

listed on the page or for special delivery of very large amounts of recyclables, please contact Mark Dressler at 301-619-2323. ♦



## Environment, Health, and Safety Program

### *Where the Business World and Personal Life Overlap: Employee Assistance Program Helps*

Working on an important project, you're distracted by the echoes of an argument with your spouse. Or you toss and turn in bed, worried about a deadline.

When problems in your work and personal lives overlap, you can get help from the **Employee Assistance Program (EAP)**, part of Occupational Health Services.

In a recent interview, EAP Coordinator Selden Cooper, MSW, UGA, MED, observed that while most people cope well with stress, it can wear down even the strongest.

In times of stress, "EAP is here for you and your family," Selden said. For example, Selden provides services to immediate family members, identifies community resources, supplies information about problems and their solutions, or simply offers reassurance that the problem is normal, helping you restore "your well-being and your ability to function well on the job and at home, thereby promoting both your welfare and that of the organization," Selden added.

In contrast to other employee counseling programs, EAPs consider the employer's needs, as well as the employee's.

Together, the EAP and the employee assess the problem; the EAP suggests a resolution, provides the necessary services, or refers the employee to a community-based resource, and does follow-up, which may include relapse prevention. The focus is on wellness and prevention of disability.

Referrals may be voluntary (self-referrals) or made by a supervisor. EAP services can vary from a single phone call to extended follow-up and support.

"Self-referrals are often for things that haven't yet impacted the

employee's job performance but about which the employee is worried," he said. Co-workers or supervisors don't need to know about the problem, "unless the employee chooses to inform them," Selden said.

Selden emphasized that he doesn't reveal anything without the employee's consent; even then, such disclosure focuses on work-related issues rather than personal information.

In the second type of referral, a supervisor may refer an employee whose job performance, attendance, or interpersonal relationships at work have deteriorated, often due to personal problems, such as substance abuse, family or marital stress, or mental health disorders. Often the employee is in denial: shifting blame, rationalizing, or minimizing the problem. Providing consultation to managers and supervisors in managing "troubled" employees is one of an EAP professional's most important roles.

The EAP focus on job performance is used to motivate employees in denial to acknowledge the need for help, something that often occurs only when they realize their job could be at stake.

Among other EAP responsibilities, Selden provides crisis intervention, assists the clinical staff in responding to medical emergencies, acts as a conflict-resolution resource, helps ease transitions or changes in the workplace environment, and provides "psycho-educational" services in stress management, assertiveness training, effective communication, family and marital issues; addictions; mediation, and grief/bereavement counseling.

Why do many companies provide this service? Substance abusers have higher rates of absenteeism; make far more disability and worker's compensation claims; and account for up to 47% of all industrial injuries, accidents, and deaths on the job. In addition, a Congressional study found

that disciplinary actions are 90% higher among drug users than among non-users.

Not only have EAPs shown their effectiveness in reducing the costs associated with troubled employees, but such a service is also an integral part of the Title 41 Drug-free Workplace Act (see <http://www.sbaonline.sba.gov/news/drugfree/dfwpact.html>), which applies to all federal agencies and contractors.

Prospective EAP clients are asked to sign a "statement of understanding" based on state and federal regulations, professional codes of ethics, and NCI-Frederick policies and procedures. EAP is required to notify Human Resources when an SAIC-Frederick employee alleges sexual harassment. This does not apply to other contractors or government employees, OHS manager Carol Ingraham Tobias said. She added that the SAIC-Frederick employee may still consult the EAP in finding an appropriate community resource if the employee is not ready to request company protection.

EAP records are confidential, with the same privacy protections as medical information. Selden's files are under his control, and his computer is not linked to others on the base.

Exceptions occur when the employee presents an imminent risk to his/her own or someone else's safety, or if current child or elder abuse is indicated. Then, the EAP is legally mandated to notify authorities and any intended victims, if known.

"The EAP helps restore people to their best possible health and functioning," Selden said. "It contributes to the NCI-Frederick mission of developing treatments and cures for cancer and AIDS; a humanitarian goal to which all of us make a vital contribution, whether we work as scientists or in supportive roles." ♦



## Building 470

### *National Cancer Institute Plans to Dismantle Building 470*

The **National Cancer Institute at Frederick** may dismantle and remove Building 470, a Cold War era structure inherited from the Army, as early as summer 2003, after appropriation of funds and selection of a demolition contractor.

“Our plan is to redevelop the campus with more efficient laboratories and make better use of the National Cancer Institute’s land at Fort Detrick,” explains Dr. Robert Wiltrout, Associate Director of the National Cancer Institute at Frederick. “It’s time to clear away many of these old World War II structures that have become inefficient and ill-suited to modern cancer research.”

NCI engineers have documented the slow deterioration of Building 470 for several years. “When our colleagues in Bethesda saw the rusting and decaying interior beams and the buckling brick façade, they agreed it was time to bring the building down in a gentle, controlled manner,” said Dr. Craig Reynolds, NCI-Frederick’s Director of the Office of Scientific Operations. “Since it’s in such close proximity to



several other buildings, we certainly don’t want it to come down of its own accord.”

Building 470 was thoroughly decontaminated over 30 years ago, and the success of that decontamination verified when over 1,300 samples, taken in hard-to-reach places, were negative for any trace of *Bacillus anthracis*. Tests on an additional 790 samples in October 2002 again confirmed no trace of live or dead *Bacillus anthracis*. The samples were analyzed by either conventional culture methods or by polymerase chain reaction, a more sensitive test involving DNA.

In addition, in 2000, a panel of experts in biological safety from the Massachusetts Institute of Technology, Duke University Medical School, and Science Applications International Corporation examined the original decontamination data. They determined that workers involved in the dismantling would not need to be immunized for anthrax.

Carol Shearer, the 470 Project Engineer and an expert in dismantling former bioweapons facilities in the former Soviet Union, explains that “... this means... we have a building that is safe to take down. Our main concern, then, is not anthrax, but noise and

vibration—and most importantly, the disruption of science in the adjoining and adjacent buildings,” says Ms. Shearer. Before dismantling begins, schedule updates will be posted on a Web site.

While the dismantlement will be an inconvenience, NCI-Frederick leadership believe it will not be a biohazard. To that end, safeguards have been built into the dismantling process, such as ongoing air sampling for contaminants and control of dust with an environmentally friendly substance. Moreover, NCI, mindful of Frederick’s recent water crisis, requires the demolition contractor to provide any water used on the project. Employees will be periodically briefed and can call a telephone information line.

Unfortunately, demolishing Building 470 will mean fewer parking spaces and more noise, vibration and construction traffic for approximately eight months. At the end of the project, though, the specter of a bygone era will be put to rest, along with the myth that surrounded it.

To learn more about Building 470 and the myths and truths surrounding it, go to <http://web/campus/470update>. ♦



## Building 470

### Meet the 470 Project Team:

**Carol Shearer**, Project Manager for demolishing Building 470, has a B.Sc. in Electrical Engineering and is a registered nurse. Ms Shearer was the Subproject Manager for dismantling the Biomedpreparat facilities, the former Soviet Union's anthrax production plant, in Stepnogorsk, Kazakhstan. As the Project Engineer, she also dealt with biosecurity and biosafety issues in the former biological weapons laboratories in Russia and Kazakhstan.

Prior to this, she developed and implemented a medical program for the construction of the oil pipeline across Southern Russia. Ms Shearer was a safety officer for several years at the DOE, Hanford site; and was the Corporate Safety Administrator as well as an electrical design engineer for an R&D company.

**Dr. George Anderson** holds a doctorate in immunology from The Johns Hopkins University. He is presently providing the Department of Defense with expertise in biological defense at the Defense Advanced Research Projects Agency, the Defense Threat Reduction Agency, and the International Science Technology Center at 13 former biological weapons facilities in Russia. Dr. Anderson also provides biomedical, biosecurity, and biosafety expertise to Bechtel Corporation in its Biological Weapons Proliferation Prevention Project in the former Soviet Union. He has a combined 17 years of experience at the

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), including work involving anthrax. Previously, Dr. Anderson worked with the NCI Institutional Biological Safety Committee and NCI safety personnel, overseeing production of a nonvirulent strain of *B. anthracis* in the Good Manufacturing Practices facility at NCI-Frederick.

**Dr. David Franz, Ph.D., DVM**, has 23 years within the Army Medical Research and Development Command, having served as Deputy Commander and then Commander of USAMRIID and as Deputy Commander of the Army's Medical Research Institute and Materiel Command. He was the Chief Inspector on three United Nations Special Commission biological warfare inspection missions to Iraq; a technical adviser on long-term monitoring; a member of the first two US/UK teams that visited Russia in support of the Trilateral Joint Statement on Biological Weapons; and a member of the Trilateral Experts' Committee for BW negotiations.

Dr. Franz demonstrates his concern

for the environment and people through his committee responsibilities, including the National Research Council Committee on Biological Threats to Agriculture, Plants and Animals; and the Multisector Crisis Management Consortium. Professionally, he has served on the Chemical-Biological Defense Technology Area Review and Assessment Board (DoD), and on the Defense Science Board for Homeland Defense: Intelligence, among others. He has shared his biological defense expertise on CBS's Primetime, ABC's 20/20, and various National Public Radio stations. Locally, Dr. Franz volunteers to provide First Responder's Training to the Frederick Police and Fire Departments.

To learn more about anthrax: <http://www.bt.cdc.gov/agent/anthrax/index.asp>

Questions or comments on Building 470? Contact Cheryl Parrott, Director of Public Affairs at NCI-Frederick: [parrottc@ncifcrf.gov](mailto:parrottc@ncifcrf.gov) or phone her at 301-846-5382. ♦

## Office of Diversity and Employee Programs

### *NCI-University of Maryland Form Partnership for New Program*

The NCI **Office of Diversity and Employee Programs (ODEP)** has funded a collaborative project, The Gemstones Program, at the University of Maryland. Created in 1996 by the University of Maryland, the Gemstones Program is a unique interdisciplinary four-year research program for undergraduate honors students of all majors. Gemstone students are members of a living-learning community comprised of fellow students, faculty and staff who challenge and support them to develop their research, teamwork, communication and leadership skills. Under guidance of faculty mentors, teams of students design, direct and conduct research exploring the interdependence of science and technology with society. In the fourth year, each team presents its thesis project to leaders in the field. The students complete the program with a citation and a tangible sense of accomplishment.

A current project focuses on developing methods to address the comparability of characteristics in any groups being treated. Dr. Vance Berger of the Division

for Cancer Prevention, NCI, has challenged a University of Maryland team to determine how medical studies should be designed and analyzed to best ensure that treatment groups are comparable in every way except for the treatments received.

The Office of Diversity and Employee Programs is very excited about this project and hopes to continue to make this and other opportunities for collaboration available to the scientific community of the National Cancer Institute. ♦

## Women Scientists Advisory Board

### *Women Scientists Advisory Board*

Since 1991, women scientists have had the option of being directly represented by the **Women Scientists Advisory Board** for the Director of the National Cancer Institute. Four women scientists are elected by tenured principal scientists within NCI. They are part of the larger **Women Scientists Advisors (WSA)**, which is NIH-wide; each institute elects one senior scientist to advise her institute director concerning issues relevant to women scientists, as well as to serve as mentors to junior scientists.

In 1991, Dr. Bernadine Healy, then Director of NIH, established a task force, including about 15 intramural scientists, to examine the status of intramural women scientists. The task force issued a final report in November 1992, recommending that each IC should have a Woman Scientist Advisor. The recommendation and

others were unanimously approved by the Scientific Directors at a meeting on November 4, 1992.

The NIH Women Scientists Advisors' duties include:

- Advising the Scientific Director about issues relevant to women scientists;
- Attending lab/branch chief meetings to serve as representatives of women scientists;
- Informing the Institute's women scientists about issues which will affect them and soliciting their opinions;
- Attending NIH-wide WSA meetings; and
- Serving on search committees for tenure-track, tenured scientists, and lab/branch chiefs in the WSAs' institutes.

Dr. Grace Yeh, Chief, Cellular Defense and Carcinogenesis Section, BRL, CCR, NCI, serves as the WSA representative at the NCI-Frederick campus. ♦



## Facilities, Maintenance, and Engineering

### *Uh-oh! Who Ya Gonna Call? The Trouble Desk*

The SAIC-Frederick, Inc. **Facilities, Maintenance, and Engineering (FME)** directorate handles issues related to facility management and planning, operations and maintenance, engineering and construction for NCI-Frederick.

Call our Trouble Desk for problems requiring immediate attention, as well as problems you may have with building utilities, such as heating, ventilation and cooling systems (HVAC); telephones; electrical and lighting; central vacuum and compressed air systems; and alarm systems. You can also request laboratory or office equipment repairs

and report custodial matters to the Trouble Desk. Just tell us your name, building and room location, and a description of the problem or situation. Center numbers default to the point-of-contact employee; however, you will be asked if this request should be assigned to a specific program activity.

FME coordinates efforts with the Army Garrison to resolve roads and grounds problems and issues related water, steam, sewer and electrical utilities that serve NCI-Frederick buildings.

The Trouble Desk is staffed Monday through Friday, from 7:45 a.m. to 4:30 p.m. You can contact the Trouble Desk via:

- Phone, 301-846-1068
- Fax, 301-846-6660 or
- E-mail, [trbldesk@ncifcrf.gov](mailto:trbldesk@ncifcrf.gov)

The Trouble Desk can also accept requests for non-repair type services that are categorized as a Special Assistance (total cost not to exceed \$5,000) work order.

Examples of this category include basic equipment connections, simple fabrications, telephone hookup/disconnect, installation of shelving or white boards, and office or equipment moves. Requests for extensive renovation, equipment installations involving utility modifications, and new construction will continue to be requested via a work order submittal. An online work order request link is accessible via the FME Home page for renovation and modification requests. ♦

## Campuswide Publication

### *New Telephone Directory*

You asked for it and we delivered! **Scientific Publications, Graphics & Media (SPGM)** has recently updated and revised the Telephone Directory. The designers at SPGM hope you'll find it simple to navigate and easy to read, allowing you to quickly obtain the information you need. All information is believed current as of March 31, 2003; the directory will be updated at six-month intervals.

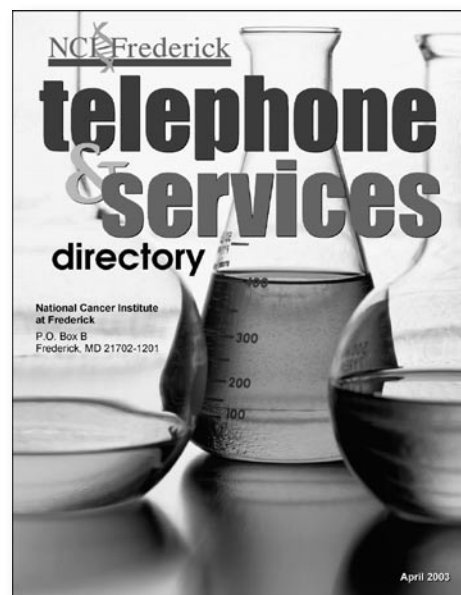
As well as providing you with a better-organized source of telephone information, one of the biggest changes you'll notice is the expansion of the Services listings, which are now at the front of the book, are cross-referenced, and include a one- or two-paragraph overview/summary of your group's main mission/services provided.

If you need to make any changes to your personal directory information (telephone number, fax, e-mail address, building or room assignment), please convey the changes to your contractor's Human Resources representative, listed below:

Charles River Laboratories	Shirley Eyler	301-846-1203
Data Management Services	Pam Mendelsohn	301-694-5230
NCI-Frederick	Barbara Belldina	301-846-5024
SAIC-Frederick, Inc.	Kim McLean	301-846-1149
WISCO	Nate Wilson	240-674-5734

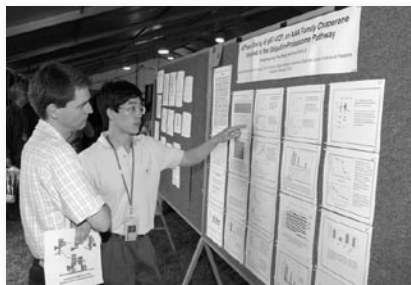
You can also change your information online at <http://web.ncifcrf.gov/campus/phonebook/>. On this site, you can call up your information, and by following the instructions as they appear on the screen, make corrections that will be automatically forwarded to your HR representative.

For changes or corrections to other information, please send the revisions to SPGM, Building 362. Service providers in particular are encouraged to provide information for inclusion in the Services Directory section. ♦



## Special Events

### *Seventh Annual Spring Research Festival Set for May 14-15*



The National Cancer Institute at Frederick recently announced that the ***Seventh Annual Spring Research Festival*** will be held May 14 and 15, 2003, on the Blue and Gray Field Fort Detrick.

A collaborative effort between NCI-Frederick and the U.S. Army Medical Research and Materiel Command held during Armed Forces Week, the Spring Research Festival provides a forum for all civilian, military and contractor scientists employed at Fort Detrick to share information among scientific disciplines and to acquaint our neighbors in the Frederick community with the research we conduct, the discoveries we have made, and the challenges that lie ahead.



The festival traditionally includes a Science and Technology Expo; scientific poster presentations, during which scientists are available to talk informally about their research; Science in the Cinema, a chance to view a Hollywood movie and discuss its scientific basis afterward; presentations by various support groups at NCI-Frederick; and a Health and Safety Fair. Exhibits are open from 10:00 a.m. to 4:00 p.m.

The Technical Sales Association sponsors more than 200 major national and regional vendors displaying a broad selection of the most advanced equipment, instruments, and services technology. TSA is a nationwide, member-led organization based in the greater Washington, DC, area. Since 1999, it has supported the awards for the best scientific posters presented at the Spring Research Festival and has donated more than \$36,000 from exhibit proceeds to Ft. Detrick's Morale, Welfare, and Recreation fund in appreciation of the installation's support of this event.



If you wish to present a poster or participate in the Health and Safety Fair, please register on-line: <http://web.ncifcrf.gov/events/springfest>. If you are a commercial vendor or exhibitor, you may register with the Technical Sales Association through GTP Management Services International: [www.gtpmanagement.com](http://www.gtpmanagement.com). ♦



### *Eighth Annual Take Your Child to Work Day Scheduled for July 23rd*



The eighth annual ***Take Your Child to Work Day (TYCTWD)*** will be held on Wednesday, July 23rd. Originally called Children's Day, this event was inaugurated in 1997. The Web site (<http://kidsday.ncifcrf.gov/>) will be updated as information becomes available. Volunteers are needed both prior to and on the day of the event. For the day to be a success, your help is needed. If you would like to volunteer, please do so on the Web site. ♦



## Job Vacancies

### *SAIC-Frederick, Inc.*

**Animal Caretaker I:** positions require completion of 8th grade or equivalent; 1 year of previous work experience and the ability to lift and carry up to 50 lbs.

**Research Technicians** (various laboratories): positions require BS degree or equivalent (4 years) related biomedical research experience.

**Sr. Research Technicians** (various laboratories): positions require BS degree or equivalent plus 2 years of related biomedical experience.

**Research Associates** (various laboratories): positions require BS degree or equivalent plus 4 years of related biomedical experience.

**Clinical Research Associates** (various levels), Clinical Monitoring Research Program: positions require minimum

of BS degree (preferably in a scientific discipline, BSN, or pharmacy) and a minimum of 2 years directly related experience overseeing multiple concurrent clinical trials.

For a complete listing of all open positions, or to apply for posted openings, please visit our website at: <http://saic.ncifcrf.gov>



### *Research and Training Opportunities*

Please contact the individual contractor's human resources representative or go to the contractor's Web site for up-to-date, detailed information and job requirements.

**Charles River Laboratories**

<http://www.criver.com>

**Data Management Services**

<http://css.ncifcrf.gov/about/dms.html>

**National Cancer Institute at Frederick**

<http://www.training.nih.gov/postdoctoral>

**SAIC-Frederick, Inc.**

<http://saic.ncifcrf.gov>

**Wilson Information Services Corporation**

<http://www-library@ncifcrf.gov>



## In Remembrance

### *The Poster Staff*

**Executive Editor**

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**Associate Editor**

*Ken Michaels*

**Managing Editor**

*Maritta Grau*

**Production Editor**

*Kathy Green*

**Lead Designer**

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*Tanya Sappington*

**Charles River Laboratories**

*Cliff Hubbard*

**Community Outreach**

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**Data Management Services**

*Jim Racheff*

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*Carol Ingraham-Tobias*

**Facilities, Maintenance and Engineering**

*Deborah Dobbe*

**Frederick Employee Diversity Team**

*Scott Keimig*

**SAIC-Frederick, Inc.**

*Dave Bufter*

**Science Today**

*Steve Giardina*

**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.*

<http://web.ncifcrf.gov/ThePoster>

**Sonny Blank**, a former SAIC-Frederick, Inc., employee, died recently after a long battle with cancer. Despite numerous setbacks, he continued to do his job as long as he possibly could. According to one of his co-workers, "He acted as if there was nothing wrong with him up to the last minute; he was one of a kind."

Sonny worked in Transportation and was responsible for handcarries to and from NIH, for answering the telephone, and dealing with other employees on the NCI-Frederick campus about Transportation-related matters.

In addition to his duties at SAIC-Frederick, Inc., Sonny was for many years involved in local baseball and basketball. A member of the American Legion, at various times

he was a manager for the FSK Post 11 American Legion baseball team, chairman of the Western Maryland District, and refereed many high school basketball games. His friends

said that he loved the University of Maryland "Terps" (Terrapins) and New York Yankees teams.

Sonny's co-workers said that among

the things people liked best about him were his knowledge of sports, the way he could "tell people exactly how he felt, and a soft side" that he only showed people with whom he was close. A colleague noted, "He was greatly loved and will be missed" by his friends and coworkers in Transportation, NCI-Frederick, and the Frederick community. ♦





2003  
 NCI-Frederick-  
 USAMRIID  
 Summer Student  
 Seminar Series

All seminars are at 12:00 p.m. in the Bldg. 549 main auditorium.

June 10 Ken Michaels

*The Art of Scientific Presentation: How to Be (and Stay) "N'Sync"*



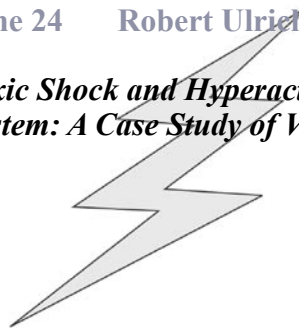
June 17 Michael J. Turell, USAMRIID

*Mosquito Vectors of New Emerging Diseases: West Nile in the US & Field Studies in the Amazon Basin Region of Peru*



June 24 Robert Ulrich, USAMRIID

*Toxic Shock and Hyperactivation of the Immune System: A Case Study of Vaccine Development*



July 1 Laura Schmidt

*Using Families with an Inherited Skin Disorder to Identify a New Kidney Cancer Gene: The Birt-Hogg-Dubé Gene Discovery*



July 8 O. M. Zack Howard

*Defensins, Chemokines and Autoimmunity: How Do They Tie Together?*



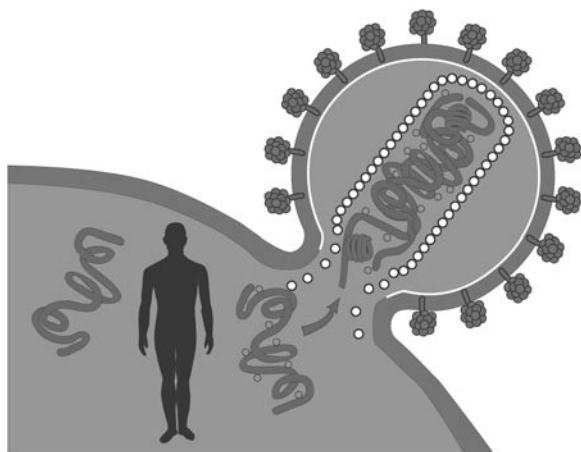
July 15 Al Roca

*Genetic Evidence for Two Species of Elephant in Africa*



July 22 Vineet N. KewalRamani

*Understanding HIV Transmission Between Cells and Between Individuals*



July 29 Bill Kopp

*Clinical Monitoring of Immune Function: What Does It Tell Us about Cancer and AIDS?*

August 5 William Day, USAMRIID

*Shigella and Anthrax as Models of Pathogen Evolution: How Good Bugs Go Bad*



August 12 Mark Fortini

*Proteolysis of Integral Membrane Proteins: A Common Biochemical Mechanism in Developmental Cell-Fate Signaling and Alzheimer's Disease*

**This seminar series is supported by a grant from the NCI Gift Fund and is open to all NCI-Frederick and USAMRIID students and employees. Students from outside the NCI-Ft. Detrick community are also welcome. ✦**