Neutrophil Monitoring Laboratory Provides Dedicated Support

Established in 1988 as a dedicated laboratory, the Neutrophil Monitoring Laboratory (NML; Clinical Services Program) provides both clinical and basic research support to investigators in the Laboratory of Host Defenses, NIAID, NIH, including Drs. John Gallin (Director, Warren Grant Magnuson Clinical Center), Harry Malech (Chief, Laboratory of Host Defenses), and Stephen Holland (Chief, Immunopathogenesis Section). Headed by Dr. Douglas Kuhns since its inception, the NML’s primary mission is to provide CLIA-certified studies of phagocytic cell function on samples isolated from patients with recurrent bacterial, mycobacterial and fungal infections, particularly patients with chronic granulomatous disease (CGD). Included in NML’s repertoire of functional assays are determinations of reactive O_2 species, staphylocidal activity, neutrophil adherence, release of granular proteins, alteration in surface marker expression, and chemotaxis. In addition, the NML performs Western blot analysis of neutrophil extracts to characterize the specific protein defect in CGD.

Neutrophils or granulocytes (see figure 1) are major effectors of the innate immune system’s defense against invading microorganisms such as bacteria or fungi. Neutrophils spend only about 6-12 hours in the peripheral circulation before migrating to the tissues; however, they constitute 40-60% of the white blood cells. Their primary function in tissues is to ingest and kill microorganisms using a tightly controlled arsenal of antimicrobial peptides and reactive oxygen intermediates.

Four Win Awards at Spring Research Festival

Four SAIC-Frederick, Inc., employees won awards at the 2004 Spring Research Festival. The festival, jointly hosted by the National Cancer Institute at Frederick and the United States Army Medical Research and Materiel Command, enables staff employees—whether students, technicians, postdocs, staff scientists, or principal investigators—to present work to their peers in the NCI, the Army, and the USDA research communities. One of the Festival sponsors, the Technical Sales Association, annually donates money to recognize outstanding poster presenters in categories ranging from student to scientist. Over the nine years the festival has been hosted, these awards have amounted to tens of thousands of dollars.

This year, Dr. Dehe Kong, Tumor Hypoxia Laboratory, won in the Cancer Biology category (Postdoctoral Fellows) for “Identification of Small Molecule Inhibitors of HIV-1 DNA Binding Activity.”


David A. Lucas, Laboratory of Proteomics and Advanced Technologies, won in the Biochemistry category (Technicians) for his poster, “Global Protein Profiling for the Identification of Nrf2-dependent Proteins.”

Finally, Kimberly Shafer-Weaver, Laboratory of Cell-mediated Immunity, won in the New Technology category (Technicians) for her poster entitled, “The GrB and IFN-γ ELISPOT’S: Partners in Monitoring Cancer Vaccine Trials.”

Figure 1. A polymorphonuclear neutrophil or granulocyte (continued on page 2)
In this last quarter of our fiscal year, we can look back with pride at the achievements we’ve made. I spoke at the Winter Staff Meeting about the need to focus on our customer service and using a team approach in many of our procedures. The last six months have been a remarkable time of accomplishments, especially for Facilities Maintenance and Engineering (FME), and much of it stems from the new people and new processes we’ve put in place.

FME received, in the past six-month period, 4,722 trouble calls and almost 2,000 special assists. Work orders totaled $14.4 million, the largest in any single period in the history of this contract. This was the fifth consecutive period in which FME reduced the backlog of work orders, completing 105.

The demolition of Building 470 has been covered extensively in News and Views, The Poster, and in The Spotlight. However, keep in mind that, as project manager of the interdisciplinary team in charge, FME ensured that the project was completed ahead of schedule and 8% under its budget of $4.6 million. And it provided us much needed parking space once we finished!

The Vaccine Pilot Plant is under construction; expected completion date and anticipated production capability are 2005. It is a $54.9 million project for NIAID; FME representatives negotiated with subcontractors and material suppliers, resulting in $1.2 million savings for this project.

The Building 469 Nanotechnology project is underway and on schedule. Labs should be completed this summer as part of meeting the 2015 goal.

Reconstruction of Building 322 was completed 4 days ahead of schedule, less than 10% over budget.

Building 571 was renovated within its $2.8 million budget and completed ahead of schedule with minimal disruption to animal care. In response to an MHV outbreak, FME met the customer’s needs and developed an occupancy strategy to enable repopulation of Building 571 within 2 days of the initial request.

Last August, we met in a two-day session off-site with NCI representatives and two consultants from SAIC Corporate. Working together, we clarified corrective action plan (CAP) goals; developed joint agreements on a number of initiatives that we’ve already put into place. NCI’s expectations included the “4 ‘A’s”: Advice (innovative design and engineering, change management, and project execution), advocacy (selecting the best solutions and procedures, maintaining cost-effectiveness, and managing risks), action (efficiency, flexibility, reliability, and responsiveness), and accountability (in finances, schedules, quality of work, and communication).

We followed these sessions with another meeting focused on communications in last fall, as well as a project management review this past spring 2004. As a result, we expect FME’s performance to continue to contribute vitally to NCI’s mission.

Already, FME changed its modes of acquisition, providing greater flexibility in contracting and project execution; greatly increased, on a trial basis, project monies available without need for prior administrative approval; improved subcontractor management; revised methods of reporting to be more customer-focused; validated the estimating process; developed standardized quantitative risk management/contingency sop; used a project team concept to improve work scope and project management; created “lessons learned” and “action item” databases to improve management of projects; agreed with NCI on how to prioritize work orders; begun working more closely and meeting regularly with Acquisitions and Logistical Services and Environment, Health, and Safety; continued staff training; and focused on customer service, especially, timeliness and responsiveness.

The project management teams in place in FME have greatly enhanced performance and our ability to meet our goals. The project manager is the facilitator or director of the team, which also includes the lead engineer, a science representative, an NCI representative, the customer representative; and a design/construction representative(s), if needed. Together, they decide on the best approach to complete a project, and together, the team assists with and monitors the project.

Functioning of these teams, coupled with formal training sessions on communication and project management, will allow FME to continue to contribute vitally to NCI’s mission. We’re proud of the great strides FME has made and the efforts of its staff. We look forward to even greater improvements, which will be reflected in the next award fee as FME continues to focus on communication and project management.

Neutrophil Monitoring Laboratory
regulated and complex enzyme system that generates $\text{H}_2\text{O}_2$. This enzyme system, known as NADPH oxidase, has at least 7 different subunits, and defects in any 1 of 4 subunits results in CGD.

Clinical Research
CGD is a rare genetic disease in which peripheral blood neutrophils fail to generate $\text{H}_2\text{O}_2$, resulting in a lifetime of life-threatening infections and abnormal inflammation. The NML is one of the few laboratories worldwide
Basic Research

The NML has focused much of its basic research on the regulation of interleukin-8 (IL-8) production in neutrophils. Human exudative neutrophils obtained from dermal lesions contain almost 200-fold more IL-8 than neutrophils isolated from peripheral blood. This increase in IL-8 in exudative neutrophils can be mimicked in vitro by treatment of isolated peripheral blood neutrophils with a chemotactic dose of the formyl peptide and fibrinogen. The production of a second neutrophil chemoattractant by migrating neutrophils suggests a plausible explanation for additional neutrophil recruitment to a site of infection and amplification of the inflammatory response.

Retirements

Joann May, a technician in Mr. Keith Rogers’ laboratory, began work at NCI-Frederick in July 1975 as a lab assistant trainee. By the time of her retirement this year, she was a group leader and senior histotechnician. She performed all duties relating to routine and specialized trimming protocols, processing schedules, and appropriate handling of specialized materials and samples; developed standard operating procedures and modified current techniques to meet increased needs. In addition, she trained technicians as well as investigators in proper histology, and monitored the laboratory’s workflow and turnaround times.

A PHL staff member noted that “JoAnn May has been a valuable part of the Histology staff for 29 years. JoAnn developed many of the special techniques currently used in the lab and was responsible in many ways for the high quality and success of the experiments run here. Her techniques will be used for years to come. She will be greatly missed.”

Ms. May plans to enjoy her retirement, spending time with her family and pursuing the quilting, sewing, and other crafts for which she’ll have more time now.

Carol Smith, who retired in May, began working at NCI-Frederick on February 13, 1989, as a warehouse clerk, acting as a back-up processor for United Parcel Service (UPS) shipments. Over the years, as often happens, her job evolved. Her proficiency and knowledge of the SmartStream software led to her being appointed the main processor of this function, as well as assisting with the processing of regular freight, returns, PC Card acquisitions, and “Direct” shipments.

Most recently, working for Mr. Byron Bowie, Manager, Ms. Smith was responsible for processing “Perishable”/“Rush Orders” for requestors. She verified orders for accuracy by comparing items and quantities of goods gathered for shipment against packing slips and delivery tickets. Also, she was responsible for the unloading of trucks, checking for damaged products, insuring that items were appropriately identified for routing to various departments within NCI-Frederick.

Ms. Smith says that she will enjoy her leisure time for a short period, and then seek a part-time job to keep her busy. She is quite an artist, and works in wood crafts; these items, along with her bingo nights, are the other things that will keep her busy.
Larry Cook: Skating through Life

When you think of roller skating today, you probably envision the in-line skates that became so popular a few years ago, or picture a neighbor who zips down the street, low to the ground, helmet on his head and pads on knees and elbows. You may not imagine the adults who, dressed in tuxedos, move gracefully on “quad” skates in ballroom dancing. Even more, you may not realize that one of our own SAIC-Frederick, Inc., employees is an accomplished skater, as well as a skilled workplace manager.

Larry Cook has been performing managerial duties for what is now SAIC-Frederick, Inc., since 1990. Originally hired as a Facility Manager, Mr. Cook is now LASP-Bethesda Operations Manager.

Among his many successes, one is his ability to find creative ways to save money for NCI investigators. For example, he has negotiated large contracts for items such as bedding, food for the animals, and caging at significant savings. In addition, while most NIH institutes order animals through NIH purchasing and are charged a 15% surcharge for the service, Mr. Cook set up a direct ordering process for NCI facilities so that NCI does not pay the surcharge, thus saving NCI time and cutting back on paperwork. Almost all animal orders can now be placed on Friday for delivery the following week.

Mr. Cook manages a staff of 65 employees, including both technical and scientific personnel. His staff and investigators always appreciate his hard work, dedication, and friendly smile.

Besides keeping the facilities rolling smoothly, Mr. Cook “rolls” on his time off. He has been roller skating since he was 15 years old, and for the past 12 years with a partner, Susan Brown. Rather than the modern inline skates, the pair uses the aforementioned “quad” skates, with two sets of wheels, one pair in the front of the skate and one in the back.

While Mr. Cook and Ms. Brown compete separately as singles, together, they have won regional dance competitions for the past seven years with their team dancing. Team dancing is ballroom dancing on wheels: graceful, elegant, precise, and very smooth. As a team, they perform the tango, waltz, cha-cha, boogie, and blues.

To keep in shape, they practice together at the Laurel, MD, roller rink four hours a day, four times a week. When they’re not skating, they’re in the gym, lifting weights, riding stationary bikes, or doing yoga.

As we go to press, the team hopes to place at the Southeastern Regional Championships in North Carolina, so they can skate at the National Championships in Lincoln, Nebraska. The top 28 teams in the country will compete at this latter event. Mr. Cook and Ms. Brown have placed 6th at the Nationals as a team, and Mr. Cook has placed 3rd in men’s figures. ☺️
Off-Site Employees Range Far and Wide

SAIC-Frederick, Inc., employees can be found in almost every building on the NCI-Frederick campus, providing crucial operations and technical support to the NCI’s mission to cure cancer. However, our employees range even further afield in their work, as far north as New York and west as Richland, Washington. Below are a brief listing and discussion of some of the off-site laboratories and other OTS programs where your colleagues work.

Out-of-State-Sites

Out of state, you’ll find an SAIC-Frederick, Inc., presence at Brookhaven National Laboratory, Upton, New York. According to its Web site, http://www.nsls.bnl.gov/, the National Synchrotron Light Source at Brookhaven National Laboratory “is a national user research facility funded by the U.S. Department of Energy’s Office of Basic Energy Science. The NSLS operates two electron storage rings: an X-Ray ring and a Vacuum UltraViolet (VUV) ring which provide intense light spanning the electromagnetic spectrum from the infrared through x-rays. Each year over 2500 scientists from universities, industries and government labs perform research at the NSLS.”

SAIC-Frederick, Inc., also provides support to the Mouse Models of Human Cancer Consortium in Omaha, Nebraska, and to the Information Technology Branch through offices in Richmond, Virginia. The Clinical Services Program (CSP) has a presence in Athens, GA, while the Image Analysis Laboratory provides core support in Richland, Washington.

Gaithersburg and Rockville Sites

Gaithersburg is home to the Advanced Technology Center (ATC). According to its Web site http://www3.cancer.gov/initiatives/advanced.html, the ATC focuses on new technologies to address biological, clinical, and genetic questions pertinent to human cancers. The ATC houses investigators from NCI’s intramural Divisions of Cancer Epidemiology and Genetics (DECG) and Clinical Sciences (DCS), and the National Human Genome Research Institute (NHGRI) whose research focuses on human cancer genetics, molecular epidemiology, and cell biology. This multidisciplinary center serves as the home of the Cancer Genome Anatomy Project (CGAP), two high-throughput genotyping centers, two sequencing centers, and a microarray facility. Ms. Ellen Miller is the director, while Dr. Robert Welch, deputy director, supervises this program in Gaithersburg. Some units are located in Rockville.

Also in Gaithersburg, Dr. Gordon Whiteley is director of the Clinical Proteomics Reference Laboratory. CPRL’s mission is “to develop and validate promising technology from the National Cancer Institute in the field of cancer diagnostics,” according to SAIC-Frederick, Inc.’s 2002-2003 Annual Report. Dr. Whiteley believes “the CPRL will become a resource for the development and validation of a number of diagnostic tests, including tests for prostate, lung, breast, and pancreatic cancer.”

Bethesda Sites

In Bethesda, Ms. Miller oversees the Vaccine Research Center, while Dr. Jeffery Derge supervises the Laboratory of Genetics and the Laboratory of Pathology there. Dr. N. Scudiero supervises the Applied Developmental Directorate in Bethesda, and Dr. Hendrick Bedigian is director of the Laboratory Animal Sciences Program, with Dr. John Dennis the Bethesda head and Larry Cook the Operations Manager in Bethesda (see article on page 4 about Mr. Cook’s varied interests).

The CSP also has a presence at Bethesda’s NIH campus, as does the Clinical Monitoring Research Program (CMRP). Furthermore, components of the CMRP can be found in Rockville and in Frederick. In Bethesda, the CMRP provides clinical research nursing and data monitoring. In Rockville CMRP works with the 5-to-9-a-Day program, the Development of Clinical Imaging Drugs and Enhancers program, the Tobacco Intervention Research program, and several others.

Frederick Off-Campus Sites

Closer to home, Dr. Derge is director and Dr. John Venditti the supervisor of the Support to the Biological Testing Branch at the Fairview Center on Seventh Street in Frederick. Also at Fairview Center are Mark Gunnell’s group, providing support to the Developmental Therapeutics Program, and Connor McGrath’s Target Structure-based Drug Discovery Group. Nearby, on Tollhouse Avenue, you’ll find Dr. David Munroe and the Laboratory of Molecular Technology (LMT) employees.

The LMT provides the NCI “with an integrated molecular biology laboratory, including high-throughput sequencing, genetics, genomics, and proteomics technologies, together with associated bioinformatics and information management…supporting the requirements of the NCI Mouse Genetics Program, the Laboratory of Genomic Diversity, the Laboratory of Immunology, and the HIV Drug Resistance Program. Additionally, the LMT provides substantial assistance to other NCI/CCR laboratories and investigators based at the NIH-Bethesda campus,” as stated in the SAIC-Frederick, Inc. 2003-2004 Annual Report.

Ms. Beth Baseler, head of the CMRP, works with her colleagues in the Regulatory Compliance and Human...
Subjects Protection Program (RCHSPP) in their new home on Industry Lane. The RCHSPP is a program dedicated to several of NIAID’s clinical trials. For example, last year, the group helped the DoD develop clinical trial infrastructure, as well as a clinical research initiative, known as Phidisa, in Mali.

A couple of miles away, on Thomas Johnson Drive, you’ll see components of financial and administrative assistance: Accounts Payable, General Accounting, and Travel; and Mr. John Trifone, heading Acquisition and Logistical Services. Dr. Jeffery Derge is there, in charge of the Office of Research Administration; and Dr. Criss Tarr oversees the Vaccine Clinical Materials Program. In addition, the Conference Planning office and some FME units are housed on Thomas Johnson Drive.

With more than 200 employees of various nationalities, a Handbook for Off-Site Employees has been produced in English, Spanish, and French.

If you would like us to profile your unit in greater depth, please contact Maritta P. Grau, editor, at Scientific Publications, Graphics & Media, 301-846-5248, or graum@ncifcrf.gov. Our thanks to Robert Hardisty, who provided the list of off-site programs.

As we go to press, plans are for the summary to provide a strong introduction to the breadth and effectiveness of NCI-Frederick’s research.

The summary aims to impart missions and goals, the synergy of Federal and contractor personnel, the special long-term relationship established through NCI-Frederick’s being a Federally funded research and development center. It also describes how NCI-Frederick has fostered cooperation among Federal activities in support of a national interagency biodefense campus. Key accomplishments and their benefits to the nation will also be highlighted.

Planned as an 8 ½” x 11” glossy, four-color pamphlet of only about 8 pages, the separately bound executive summary will accompany the individual contractors’ annual reports due September 1 to NCI.

The importance of contacting Protective Services any time you see something out of the ordinary, whether it’s a package or a person.

“Don’t touch the package or confront the person,” he said, “just call Protective Services at 1091.” The officers are all well trained and experienced. They will evaluate the situation and determine whether the K-9 officers need to be called.

As inducements to stop by, visitors could register to win a door prize—a 30-day reserved parking space. They were also offered finger sandwiches, bread dippers, fruit and vegetable trays, chocolate chip cookies, a “Chocolate Lovers” tray, and punch; and they could choose from among numerous styles of lanyards and plastic badge envelopes.
Accident!

Do you know what to do if you or one of your colleagues has an accident at work?

1. First, notify someone.
2. Second, administer first aid, if needed. (If a chemical or biological splash occurs, flush the affected part under the emergency shower or eyewash for 15 minutes).
3. If it is an emergency, have someone dial 911.
   • If you are on the NCI-Frederick campus, 911 puts you in contact with the NCI-Frederick Occupational Health Services (OHS). They will tell you what to do. OHS staff and/or safety staff will report to the accident scene, if needed. (If you call 911 after hours, the line is answered by Protective Services). Safety and OHS personnel are on call 24 hours a day.
   • Work off-site? Dial your local emergency number (911 in most cases); your local emergency dispatch will address the emergency.
4. Visit the OHS clinic to be treated and report the accident.

All accidents, even those you may consider “minor,” need to be reported to OHS. If you work off the NCI-Frederick campus, the accident or injury still needs to be reported to OHS.

You and OHS must complete reports on all work-related injuries and illnesses. The accident report is given to you to take to your immediate supervisor. The report is then reviewed, completed, and validated by the direct supervisor, and returned to EHS.

Why Report an Accident?

Reporting all accidents and near misses to OHS benefits you! Work-related injuries and illnesses must be documented for insurance purposes as well. Lost time due to a work-related injury or illness must be reported immediately so that all the necessary facts may be obtained and recorded. Failure to file the form may result in delay in Workmen’s Compensation payment or loss of Workmen’s Compensation benefits to which you would otherwise be entitled.

Once work-related accidents are entered into the OHS computer database, EHS personnel review them. If further assistance is needed to correct circumstances or other factors that led to the accident, an investigation is conducted. Once an accident investigation is completed, a memo with recommendations is sent to the supervisor, employee, and any other involved parties. Follow-ups of recommendations may also be conducted.

If you have any questions regarding work-related accidents, injuries, or illnesses, please call EHS at 301-846-1451 or OHS at 301-846-1096.

EHS Wins Environmental Excellence Award

Dr. Randall Morin, director of the Environment, Health, and Safety (EHS) Program, recently was recognized with an Environmental Excellence Award because no citations or violations have been issued by any regulatory agency during any planned or unplanned inspections since he became director in 1995.

Dr. Morin noted that “Everyone in EHS contributed to this award being earned, especially managers Jerry T. Moore, radiation safety, who should be credited for the good results from the Nuclear Regulatory Commission inspections; Scott Keimig, safety; and Bruce Tobias, our environmental officer.”

If you have any questions or concerns about the environment, health, or safety of your working conditions, contact EHS at 301-846-1451. For specific areas to call, review pages 8-9 in the 2004 NCI-Frederick Telephone and Services Directory.

Are You Dressed for Work or Leisure?

The warm weather has arrived! By now, no doubt you have packed away heavy sweaters and flannel shirts. But are the clothes you reach for each morning appropriate for work—or for leisure?

Being intent on our mission for NCI, we’ve enjoyed a rather relaxed attitude about attire on our campus, despite pictures from the 1970s that indicate most men wore jackets, shirts and ties, and most women wore dresses, depending on the needs of their work. Although we do not have an established, formal dress code at SAIC-Frederick, Inc., this is a place of business and its management has a responsibility to address issues where employees are not dressed appropriately for their work area.

Inappropriate attire can create safety issues as well as various problems, such as attracting unwanted or inappropriate attention, or distracting other people from their work. In addition, management has received complaints, both in the past and recently, from customers and co-workers regarding clothing. We can be casual without looking as though we’re going to the beach. Appropriate attire does not include plunging necklines, bare midriffs, short-shorts, flip-flops, etc.

So, when you’re getting ready for work, remember: You are coming to work; this is a place of business.
SAIC Stock

One of the “perks” of an employee-owned company is the many opportunities to purchase company stock. You have several options available if you are interested in purchasing SAIC stock.

Employee Stock Purchase Plan (ESPP): Through the ESPP, you may elect to purchase SAIC stock by having between 1% and 10% of your after-tax income withheld from your bi-weekly pay. Deductions are held in a non-interest-bearing account. In each quarterly stock trade, a purchase is made for you at a 15% discount.

First-Time Buyers Program (FTBP): Through the FTBP, you receive a match of two vesting stock options for every share you purchase in conjunction with your first trade purchase. You may purchase a minimum of approximately $500 up to approximately $2,000 (rounded down to the next whole share). Participation in the ESPP does not disqualify you from participating in this program.

Direct Stock Purchases: You are pre-approved to make direct stock purchases of up to $20,000 worth of SAIC stock in each quarterly trade. Stock purchases in excess of $20,000 require SAIC (Corporate) Board of Directors’ approval. If you are interested in purchasing more than $20,000 worth of SAIC stock, you should contact Ann Heller, extension 1518, for information.

To learn more about SAIC stock, log on to “Stock Tools” at http://issaic.com/eon/ or review the SAIC Prospectus.

Important Telephone Numbers

Ethics Hotline .......................... 1-800-435-4234
Human Resources Department ...... (301) 846-1146
Benefits Questions, HR Department (301) 846-1146
SAIC Stock Programs .................. 1-800-785-7764
SAIC Stock Price ....................... 1-888-245-0104

SAIC Stock

As we go to press, the price for SAIC Class A Common stock was re-established by the SAIC Board of Directors on July 16, 2004, at $37.31.

Stock Price Set ..................... Future Trade Dates*
October 8, 2004 ...................... October 15, 2004

*Dates are subject to change.

Published by Scientific Publications, Graphics & Media for
SAIC-Frederick, Inc., National Cancer Institute at Frederick, Frederick, MD
21702-1201