

SAIC-Frederick, Inc., Research Finds Gene Combination Influences AIDS Progression

By Frank Blanchard

Researchers at SAIC-Frederick, Inc., have identified a combination of genes that helps explain why some people develop full-blown AIDS early after infection, while others live for many years without becoming seriously ill.



Patricia Martin, Ph.D.,
Basic Research Program

Drs. Patricia Martin and Mary Carrington, Basic Research Program, and colleagues at several institutions analyzed the genes of more than 1,500 HIV-infected individuals who had different degrees of illness. They identified a gene combination that was prevalent in individuals with delayed onset of the disease.

In the individuals studied, about 60 percent who had the protective gene combination were free of disease symptoms for as long as 10 years after being diagnosed with the human

immunodeficiency virus (HIV), which causes AIDS.

The findings, published recently in *Nature Genetics*, may suggest new therapies to manage AIDS progression or new strategies for identifying the highest-risk patients, who need the most aggressive treatments.

Research Focuses on Natural Killer Cells

The research centered on natural killer (NK) cells, part of the immune system's first response to attack by a virus or other foreign pathogen. NK cells spring into action immediately to contain any infection by killing host cells that the virus has overtaken, thus preventing the virus from multiplying and spreading. Secondary (adaptive) immune cells then mount a more targeted and thorough counterattack.

“There are many variations and combinations of these two genes,” said Dr. Martin, first author of the study.

The effectiveness of the initial NK-cell response can determine how well a virus is ultimately defeated or contained. The NK response becomes even more critical in AIDS

because HIV attacks the secondary immune system cells, whose job is to completely rid the body of invading pathogens. Since all AIDS patients have a weakened secondary response, the patients with an especially strong first response are likely to be healthier longer.

The current research examined genetic variations in genes involved in NK-cell function of patients whose disease progressed quickly and compared them with those from patients who went for many



Mary Carrington, Ph.D.,
Basic Research Program

years after HIV infection without getting sick. Patients with slow disease progression showed a specific combination of two gene variants that appears to make NK cells especially effective in identifying and destroying HIV-infected cells.

(continued on page 3)

Arthur's Corner**NCI-Frederick: On Target to Meet the Fitness Challenge***Dr. Larry Arthur*

At the 2005 Winter Staff Meeting, I challenged you to collectively lose a ton of weight, walk around the Earth, or perform a year's worth

of fitness activities. Since then, the staff at SAIC-Frederick, Inc., and our colleagues at NCI-Frederick and Fort Detrick have collectively lost nearly a ton of weight (1,874 pounds as of October 30), walked more than three times the circumference of the Earth, and completed more than two years' worth of fitness activities (19,304 hours).

Now I'm pleased to report that, in addition to the many health benefits of these accomplishments, you have placed SAIC-Frederick, Inc., alongside several other companies in the United States to be recognized by the American Heart Association (AHA) for its new "Start! Fit-Friendly Companies Recognition" award <<http://www.americanheart.org/presenter.jhtml?identifier=3040830>>. The award was announced September 25th in the *Wall Street Journal*. The award, a catalyst for positive change in workplaces across America, recognizes companies that demonstrate progressive leadership by making the health and wellness of their employees a priority.

We have been recognized at the "gold" level, which means that we:

- offer all employees physical activity support at the worksite;

- have increased the number of healthy eating options available to you as employees;
- promote a wellness culture at the worksite; and
- embrace at least nine of the AHA criteria for physical activity, nutrition, and a "wellness" culture.

Despite the loss of access to the Odom Fitness Center, you continue to strive to meet the Fitness Challenge. Congratulations to the most recent winners:

Pounds lost:

Shirley Foreman, Fisher BioServices Central Repository (June)

Adrienne Diehl, SAIC-Frederick, Inc., Laboratory Animal Sciences Program (July)

Tania Defibaugh, SAIC-Frederick, Inc., Contracts and Administration Directorate (August)

Tara Grove, SAIC-Frederick, Inc., Vaccine Clinical Materials Program (September)

Miles traveled:

Naoya Yuhki, National Cancer Institute (NCI), Laboratory of Genomic Diversity (June)

Evette Paganortiz, Fort Detrick, U.S. Army Reserve Center, Flair Armory (July)

Fred Skroban, Fort Detrick Engineering Directorate (August)

John Beutler, NCI, Molecular Targets Development Program (September)

Other fitness activity hours:

Laverne Harris, Fort Detrick, Defense Commissary Agency (June)

Roberta Matthai, SAIC-Frederick, Inc., Basic Science Program (July)

Carolyn Jean Eyler, SAIC-Frederick, Inc., Contracts and Administration Directorate (August)

Tammie Ford, SAIC-Frederick, Inc., Environment, Health, and Safety Directorate (September).

SAIC-Frederick, Inc., has taken a number of steps to help all of us lead healthier lives. You can

- Follow the fitness trail and stop at exercise stations;
- Participate in the facilitywide fitness program by walking and doing other forms of physical fitness;
- Use the OHS fitness tracking web site;
- Read about what motivates fellow employees in the newsletter and in online articles;
- Attend fitness and other kinds of healthy noontime seminars.

At SAIC-Frederick, Inc., we believe a worksite physical activity program is important. You spend at least 40 hours, if not more, here each week. The time spent on the job in a sedentary activity may make you more susceptible to health risks associated with inactivity. Studies suggest that by implementing a worksite physical activity program and promoting a culture of activity, companies can increase productivity, lower turnover, and reduce health care costs. Besides benefiting the company, a healthier workplace helps employees live healthier, longer lives. 

Larry O. Arthur, Ph.D.

Principal Investigator of the Operations and Technical Support Contract and Associate Director of the AIDS Vaccine Program, SAIC-Frederick, Inc.

AIDS Progression *(continued from page 1)***Keeping the Virus in Check**

The strong initial NK-cell response in these patients apparently keeps the spread of the virus in check until the secondary response can kick in. With a good head start, the secondary response is then more effective.

Individuals with the protective genes still have the virus, but their immune systems apparently subdue it enough to delay the appearance of symptoms.

“There are many variations and combinations of these two genes,” said Dr. Martin, first author of the study. “Depending on the combination, you’ll have greater or lesser protection at the earliest stages of HIV infection.”

Although much more research needs to be done, Dr. Martin speculated that these findings suggest two possible avenues for improved therapy. The first, a cell-based therapy, might involve withdrawing blood from patients who have the protective gene combinations. The NK cells would be isolated from the blood, stimulated to become active, and then injected back into the patient to fight the virus.

A second option might be to use the genetic information in screening tests for HIV-infected individuals. Those who lack the protective gene combination would be candidates for more aggressive therapies designed to compensate for the anticipated weaker NK response.

The research was conducted in the Laboratory of Genomic Diversity with collaborators from the following institutions:

- Laboratory of Experimental Immunology, NCI-Frederick
- Viral Epidemiology Branch of the National Cancer Institute
- National Institute of Allergy and Infectious Diseases
- Northwestern University Medical School
- San Francisco Department of Public Health
- Johns Hopkins University
- Stanford University School of Medicine. ↻

Now You May Donate Vacation Leave into a General Pool

By Nancy Parrish

Provisions for donating unused vacation leave now include the opportunity to donate your leave into a special pool for qualified recipients. This change is among the many revisions to the SAIC-Frederick, Inc., leave policies announced by the Human Resources Department (HR) in September.

“These changes were made to generally update leave benefits and to ensure that NCI-Frederick policies and procedures are in better alignment with federal employment laws,” said Jill Sugden, Director, HR. Some of the policy changes are highlighted here; however, you should visit the web site (see below) to review the policies in their entirety.

Sick Leave (NCI Policy and Procedure #316): Redefines family members to include dependents (newly defined), live-in partners, and grandparents who reside with

the employee; redefines criteria for advanced sick leave; changes the approval process for advanced sick leave; adds an agreement for repayment of advanced sick leave.

Paid Absences (NCI Policy and Procedure #317): Provides paid leave as necessary and requires advance documentation for grand jury service; clarifies distance to be traveled to qualify for five days of bereavement leave; includes bereavement leave for death of great-grandparent, step-relative, or grandchild.

Leave of Absence (NCI Policy and Procedure #318): Removes maternity leave as a category because maternity is covered in medical and family leave. Removes requirement for Occupational Health Services authorization to begin a medical leave; requires employee to return from family medical leave in a timely manner to have his/her position, or comparable position, guaranteed.

Leave Donation Program (NCI Policy and Procedure #321): Clarifies that both full- and part-time employees are included in the program;

adds live-in partners and grandparents who reside with the employee to the list of family members; removes siblings and other relatives unless they meet specific criteria; broadens the limits on how much can be donated and allows unused donated leave to be placed in a pool for future recipients; establishes a special leave pool for any qualified recipient.

Family Medical Leave (NCI Policy and Procedure #329): Redefines family members to conform to the Family Medical Leave Act. ↻

For more information or to review the new policies in their entirety:

Visit the NCI Frederick Policy and Procedures web page at:
<<http://web.ncifcrf.gov/campus/administrative/policies/>>.

Or, contact the Human Resources Department, 301-846-1146.

Small Businesses Benefit from SAIC-Frederick, Inc., Support

By Frank Blanchard



A vaccine for staph infections, a lab-on-a-chip for quick medical diagnoses, and a new screening test for

cervical cancer: These are among the products that start-up companies are bringing to market at the Frederick Innovative Technology Center, Inc. (FITCI), for which SAIC-Frederick, Inc., is a corporate sponsor.

Open since 2004, FITCI is a nonprofit, business incubator that helps create sustainable businesses that offer good jobs in Frederick County. It is funded by the state of Maryland, Maryland Technology and Development Corporation, Frederick County, Frederick City, and the local business community. SAIC-Frederick, Inc., is a \$15,000 Platinum Sponsor.

Twenty-six young businesses are benefiting from FITCI, which offers fledgling companies office space, a place to hold meetings, wet lab space, and other accommodations to kick-start success. If a business does not need full-time space, FITCI offers a virtual office by providing such essentials as on-demand meeting space, a fax machine, and someone to answer the telephone.

“We also offer networking opportunities,” Executive Director Mike Dailey said. “I can call local people and say, ‘We’ve got a company doing this, do you have anyone interested in doing business with them?’ The local business community is very supportive.”

FITCI has two locations: its original site of 10,000 square feet on the Hood College campus and an additional 11,000 square feet in the Metropolitan

Court industrial park, southwest of downtown Frederick.

Companies can move into either of FITCI’s facilities, which offer fully equipped commercial office space with administrative support services. Wet lab space ranging from 273 to 563 square feet is available and equipped with standard furnishings. In addition, FITCI offers business plan review, consulting services, and educational programs.

Once a company matures, it moves away. Akonni Biosystems Inc., is preparing to do just that. Akonni, founded in 2003, is marketing a time- and cost-saving lab-on-a-chip technology that can scan for the presence of hundreds or thousands of diseases from a single blood or saliva sample, with test results in 30 minutes. It is preparing to leave FITCI and move into its own, permanent, facilities in Frederick County. ☺

Staph Vaccines Coming from Startup Supported by FITCI

By Frank Blanchard

Former USAMRIID research scientist Dr. Javad Aman founded Integrated BioTherapeutics with the help of the FITCI, a nonprofit, public-private partnership whose goal is to help create sustainable businesses that offer good jobs in Frederick County. SAIC-Frederick, Inc., is supporting local business development as a Platinum Sponsor of FITCI. Two of Dr. Aman’s areas of interest are staph vaccines that can be used in hospitals and on the battlefield, and small-molecule drugs to fight hemorrhagic fevers and other diseases.

An initial staph vaccine is set for clinical trials in 2008, using technology licensed from the Army and prototype vaccine from the Biopharmaceutical Development Program. This vaccine would

have military applications, although Dr. Aman plans to follow with a vaccine suitable for hospital use. Of the 1.7 million hospital-acquired infections each year in the United States, 20 percent to 25 percent involve strains of the toxin-producing bacterium *Staphylococcus*, he said. ☺



Dr. Javad Aman

Now You Can Be a C.E.O.

By Sukanya Bora

Opportunity knocks — in the form of SAIC's new Certified Employee Owner (C.E.O.) program. Introduced earlier this year, the C.E.O. program is designed to help you understand the company vision, mission, values, business model, strategic objectives, and financials, along with the stock plan.



Sukanya Bora, Training and Development Manager, explains the opportunities offered by the new C.E.O. program.

If you have fewer than two years of service, you are **required** to become a C.E.O. by completing the program. All other employees are also encouraged to complete the program, which is made up of three sessions, each approximately 35 to 45 minutes long, as follows:

1. Opportunity for

Success: Provides an overview of SAIC's ownership culture, values, and strategic objectives, and how they're evolving under our C.E.O. and business model today.

2. **Opportunity to Own:** Covers our stock ownership programs, including the Employee Stock Purchase Plan, which gives you a 15 percent discount on SAIC stock when you purchase through regular payroll deductions.

3. Opportunity to Understand SAIC Financials and Performance

Metrics: Explains our three major financial statements, cash flow and performance metrics, as well as actions you can take to build shareholder value.



C.E.O. programs are presented quarterly in Building 549.

You can complete all three of the sessions by attending one of the quarterly presentations in the Auditorium, Building 549. Watch your e-mail for notification about the next session. You may also access these sessions online via ISSAIC (SAIC's Intranet).

Approximately 250 employees have become C.E.O.s since August 2007.

For more information about the program and accessing instructions, please contact Sukanya Bora, Manager, Training and Development, at boras@mail.nih.gov or 301-846-1129. ↻

Project Management Corner

Documenting Things as They Happen

By Carmen Clark



Lessons learned during the course of a project should be noted as they occur, while they are still fresh. This will preserve the richness of detail and context that will make these lessons more valuable and informative as learning experiences.

Standard project management processes require that lessons learned during a project are chronicled in the closeout

Using Post-it® notes, an NCI-Frederick project team breaks the project into manageable units.

phase. But if you wait until the end, you may lose track of useful details.

Lessons learned gives an organization powerful historical knowledge that spans the facility. These lessons inform subsequent, similar projects and help prevent an organization from repeating mistakes. Projects will move faster and more smoothly, and employees will not feel like they are reinventing the wheel.

Accurate documentation of lessons can improve the management of future projects as team members build on the successes of others. ↻

Quality Corner

Behind Every Satisfied Customer Is a Quality Management Program

By Steve Harshman

Quality: something every customer expects and every supplier strives to provide. In fact, one of SAIC's Core Values is a commitment to delivering quality products and services. But what is quality and how does an organization provide quality products and services?

Like beauty, quality is in the eye of the beholder, or in this case, the customer. Each customer has a different expectation with respect to the quality of a product or service. The textbook definition of quality is "the ability of a set of inherent characteristics of a product or service to fulfill the requirements of the customer." So a supplier who strives to provide quality products and services not only needs to know who the customer is, but also needs to know his or her requirements, and then develop and execute a plan to meet those requirements.

That's right; quality doesn't just happen: Achieving quality in a product or service is a process that must be managed. Determining customer requirements, developing a plan, executing the plan, monitoring performance, and following up with the customer to ensure he or she is satisfied with the deliverable are all steps in the quality management process.

What does this have to do with SAIC-Frederick, Inc.? Everything. SAIC-Frederick, Inc., provides scientific, technical, and administrative services to our customer (NCI). Although there may not be a formal, documented plan in all areas, elements of quality management already exist throughout the program areas, and we have been satisfying customers at NCI-Frederick for 12

years. However, we cannot become complacent. Customer requirements are constantly changing and as we continue to grow and diversify, we will have more customers to serve with a more complex set of requirements to satisfy. To enhance our focus on serving customers and to formalize a contract-wide approach to quality management, SAIC-Frederick, Inc., has established a Quality Assurance Office within the Contracts Management Office, Contracts and Administration Directorate, and has charged this office with the responsibility for implementing programs and processes to assure that we continue to provide our customers with quality products and services.

So where are we today? Earlier this year, after review at the directorate level, Dr. Larry Arthur, president of SAIC-Frederick, Inc., approved the SAIC-Frederick, Inc., Quality Plan. The plan is designed to align with ISO 9001-2000 Quality Management Systems Requirements but is structured to accommodate separate implementing programs at the directorate level. An SAIC-Frederick, Inc., Quality Board, with representation from each directorate, has been established and is working to develop an implementation plan for the Quality Program. The board will also serve as a forum for the discussion of quality practices and processes to facilitate continuous improvement across all directorates.

Want to learn more? Contact the Quality Assurance Office or the Quality Board representative from your directorate (see below). Also, look for the Quality Corner in the *News & Views* for updates and information. ↻

Quality Assurance Office

Steve Harshman, 301-228-4003

Quality Board Members:

Applied/Developmental Directorate

Dr. William Kopp, 301-846-1707

Jan Warfield, 301-846-6367

Advanced Technology Program

Dr. Bruce Crise, 301-846-5739

Biopharmaceutical Development Program

Doug Gaum, 301-846-1829

Basic Science Directorate

Julian Bess, 301-846-5981

Amy Huter-Imming, 301-846-1669

Clinical Research Directorate

Beth Baseler, 301-846-5413

Pat Marshall, 301-228-4013

Contracts and Administration Directorate

Beth Kelly, 301-846-1533

Environment, Health, and Safety

Paul Stokely, 301-846-7381

Facilities Maintenance and Engineering

Len Wrona, 301-846-7252

Laboratory Animal Sciences Program

Pam Dellen, 301-846-7220

Vaccine Clinical Materials Program

Patti Labbe, 301-228-4210

New Name, New Location for the Former Winter Staff Meeting

The former Winter Staff Meeting has a new name and location: The Annual Awards Ceremony will be held on December 13 at the Lynfield Complex, 10142 Hansonville Road, just off Route 15 North (see map).

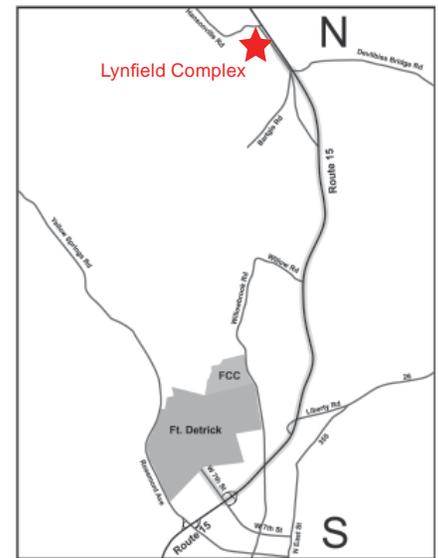
Events begin at 12:00 p.m. with hors d'oeuvres and cocktails in Building 1.

Promptly at 2:00 p.m., the awards ceremony begins in the Building 5 auditorium. Dr. Larry Arthur, president

of SAIC-Frederick, Inc., will present remarks about the state of the contract, followed by the presentation of the science achievement and service awards.

The closing reception of hors d'oeuvres, beverages, desserts, entertainment, and dancing will take place in Building 1 until 6:00 p.m.

You must notify your timekeeper by **November 30** if you plan to attend. ↻



SPGM Wins Creativity Awards

By Lisa Simpson

Scientific Publications, Graphics & Media staff members Nancy Parrish, Maritta Grau, and Richard Frederickson were recently recognized for their writing and graphic arts skills by the Hermes Creative and Magnum Opus Awards.

A continuing series in the *Poster* is "Write When You Get Work." In those articles, we follow up on former Werner H. Kirsten student interns. Ms. Parrish won a gold award in the Hermes Creative Awards competition for "Anne Hartley, M.D.: Great Expectations," which described the career journey of former intern Anne Hartley, who discovered her true calling as a medical doctor as she pursued her childhood goal of following in her father's footsteps to become a life sciences researcher (March 2006, page 26).

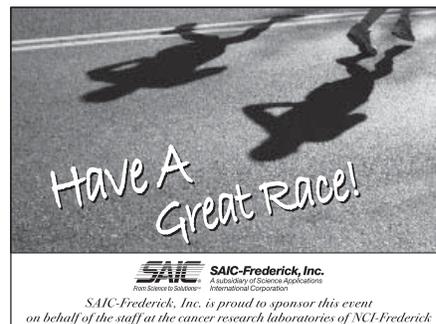
"Yooson Eugina Kim, DDS" (September 2006, page 27), another *Poster* "Write When You Get Work" feature, earned Ms. Parrish a bronze award in the annual Magnum Opus Awards competition. This article featured former Werner H. Kirsten intern Yooson Kim, who won

numerous awards for the research she did throughout high school and college under the mentorship of Dr. Lucy Anderson in the Laboratory of Comparative Carcinogenesis

before earning a degree in dental medicine and building her own successful dental practice.

The Magnum Opus Awards competition also recognized Ms. Grau with an honorable mention in the "Best Feature Article" editorial category for her article entitled "Students Not Immune to Science" (*The Poster*, June 2006, pages 22–23). This feature highlighted a unique science class composed of sixth-, seventh- and eighth-grade students with special needs, where biologist Robin Winkler-Pickett, Laboratory of Experimental Immunology, used scientific tools such as microscopes and mouse cells to teach these inquisitive students about the fundamentals of the immune system and the importance of science in their lives.

Ms. Winkler-Pickett provided the photos for "Students Not Immune to Science." *Poster* lead illustrator Tammy Schroyer designed the layout for all three articles.



"Have a Great Race," an advertisement designed and produced by Richard Frederickson for SAIC-Frederick, Inc.'s sponsorship of the 2006 Frederick Marathon, received an honorable mention in the

Hermes Creative Awards competition.

The Hermes Creative Awards competition is sponsored by the Association of Marketing and Communication Professionals. The Magnum Opus Awards program is sponsored by *Publications Management* magazine and the Missouri School of Journalism.

SPGM work has been recognized over the past six years with 37 awards from various competitions, including 2 Best of Show, 4 Gold Awards and 1 Platinum Award.

The featured articles can be found at <<http://web.ncifcrf.gov/ThePoster/>>. ↻

Benefits Corner

December 3: Deadline for Health and Welfare Open Enrollment

It's that season once again—Open Enrollment for health, dental, vision, short-term disability, and flexible spending plans for 2008. Open Enrollment began November 9, and ends **December 3, 2007**. This is the only time of the year that you are allowed to add or drop dependents, change coverage, and enroll in new plans for the 2008 calendar year, unless there is a family status change, known as a “Qualifying Event.”

Open Enrollment packets were mailed to the home addresses of all eligible

employees during the first full week of November. There are provider and plan changes this year, so please review your packet carefully. If you want to take advantage of the Flexible Spending Health or Dependent Care plans, you must re-enroll for 2008, since elections do not carry over each year. Please note that the Long-Term Disability, Life Insurance, and Retirement Plans are not part of Open Enrollment.

Open Enrollment meetings will be held in the Conference Center auditorium, Building 549, on November 14, 16, and

28. For employees working outside of Frederick County, Human Resources (HR) will make available a web link to the Open Enrollment presentation; DVDs will be available the third week of November. HR strongly encourages you to attend one of the meetings in case the web link doesn't work.

The deadline for 2008 changes is **Monday, December 3, 2007, 5:00 p.m. EST**, and cannot be extended, due to federal regulations. ☹️

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The National Cancer Institute at Frederick, Frederick, MD 21702-1201. Please direct
comments or suggestions to SPGM@ncicrf.gov.

Important Telephone Numbers

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

Dates to Note

Thanksgiving: NCI-Frederick closed	November 22
The SAIC-Frederick, Inc. Annual Awards Ceremony ...	December 13
Christmas: NCI-Frederick closed	December 25

SAIC Stock

SAIC's common stock is listed on the New York Stock Exchange under the symbol "SAI."