# **NCI** Center for Cancer Research



# fellows & young Investigators



## NEWSLETTER

Volume 3 Issue 1

October 2004

#### From the Editors' Desk:

After a bit of a hiatus, the CCR Fellows & Young Investigators (CCR-FYI) newsletter is back in business. This newsletter is another means to reach postdocs and young investigators at the NCI, CCR. As a product of the CCR-FYI, it is electronically distributed to the CCR-postdocs, principal investigator and secretary listservs to advertise upcoming retreats or workshops, report on current NCI events and programs, recognize awardees, give tips or advice and anything else pertinent to the career development of young CCR scientists. Read on to learn about the development of an International Affairs subcommittee within the CCR-FYI aimed at addressing the needs of our foreign fellows. Find out about PI's who are deemed "outstanding" by postdocs and about a trio of young scientists in the Laboratory of Experimental Immunology who are being recognized for their excellent research. If you missed the meeting on Cancer Genetics and Tumor Suppressor Genes in Cold Spring Harbor this summer, here's your recap. Finally, one fellow shares the real-life advice some female fellows gained during an inspiring lunch discussion with Dr. Anneke Levelt Sengers, Scientist Emeritus at NIST and member of the National Academy of Sciences. As always, your news and comments to nciccrfyi@mail.nih.gov are welcome!

Kathleen M. Dohoney, Ph.D. Ramalakshmi Darbha, Ph.D.

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### **ANNOUNCEMENTS**

DID YOU KNOW?

The 5<sup>th</sup> Annual CCR-FYI Retreat

The 5<sup>th</sup> annual CCR-FYI Retreat will be held **Feb 28-March 2, 2005** at the Marriott in

Williamsburg, VA. Thanks to the suggestions of those who attended the 2004 retreat, we hope to have an even better retreat in 2005. Some important dates to keep in mind are the **abstract submission deadline** of **December 13, 2004** and the **registration deadline** of **January 14, 2005**. Currently, we have Dr. Rita Colwell and Dr. J. Carl Barrett as invited

speakers, and are in the process of filling our remaining keynote speaker slots. We have an exciting agenda planned and hope that you will join

Melissa Maderia, Ph.D. NCI-Frederick 2004 CCR Retreat Co-Chair 2004-2005 CCR-FYI Chair

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### **Outstanding Mentor Awards Announced**

NCI Director, Dr. Andrew von Eschenbach recently announced the winners of the 2004 NCI Outstanding Mentor and Mentor of Merit Awards. These investigators shall be honored at the Institute's Award Ceremony on October 28th. Each year, three Outstanding Mentors receive a cash award and a beautiful engraved crystal memento. Mentors of Merit are those who scored very well in the ranking but just missed being among the top three. This year's winners are:

#### **Outstanding Mentors**

Dr. Daniel McVicar

Dr. Joost Oppenheim

Dr. Stuart Rudikoff

### Mentors of Merit

Dr. Shine Chang

Dr. Wong-Ho Chow

Dr. Adam Glick

Dr. Nancy Jenkins

Dr. Neal Copeland

Dr. Ilona Linnoila

Dr. Alan Perantoni

Dr. Paul Randazzo

Dr. Michael Smith

Investigators are nominated by at least two mentees, one of which must be a current or recent postdoctoral fellow. A committee of fellows constitutes the review panel. It is a subject of great pride for the NCI that our fellows find the mentoring you receive from our investigators so exemplary that you continue to nominate them for the award. We hope that all NCI investigators will strive for recognition as an Outstanding Mentor. The presence of such talent in our midst is part of what makes the NCI a premier training destination.

Teresa Estrada. ODEP, NCI **Travel Award Recipients** 

NCI Scholar, **Ana Gamero**, and Fellow, **Ana Romero**, both of the Laboratory of Experimental Immunology won Travel Awards to attend the Joint Meeting of the International Society of Interferon and Cytokine Research and the International Cytokine Society in San Juan, Puerto Rico to be held from Oct 21-25, 2004. Both scientists work on IFN-alpha signaling with a special emphasis on the STAT molecules that transmit the signal inside the cell upon engagement of the interferon molecule with its cell surface receptor. More information about the International Society of Interferon and Cytokine Research can be found at www.isicr.org.

Teresa Ramirez, a postbac in the Laboratory of Experimental Immunology, has been selected for a poster presentation at the annual meeting of the Society for the Advancement of Chicano and Native Americans in Science (SACNAC). Teresa also won a travel/housing award to attend the meeting in Austin, TX in October. SACNAC has provided strong national leadership in improving and expanding opportunities for minorities in the scientific workforce and academia and mentoring college students within science, mathematics and engineering for almost 30 years.

Howard Young, Ph.D. Principal Investigator, NCI-Frederick

### **ARTICLES**

#### **CCR-FYI: Involvement Makes an Impact**

The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.

Sir William Bragg (1862 - 1942)

Networking and involvement in the scientific community are also important things in science, especially at our career stage... that is why Dr. Carl Barrett, through the Office of Training and Education, has been so supportive of the CCR Fellows and Young Investigators Association (CCR-FYI). This group was started in order to give a voice and sense of community to the trainees at NCI. If you are a postdoctoral fellow, research fellow, clinical fellow, visiting fellow, graduate student, or any other category of young investigator in training...then CCR-FYI is here for you! Make sure

to take advantage of all the opportunities that are made available through this growing association.

Over the past 5 years, this committee has grown in both its membership and scope of activities. One of the highlights is the **annual CCR-FYI Retreat**, which gives trainees an opportunity to present their work, network, and interact with accomplished scientists away from the pull of lab duties. Last year approximately 500 fellows attended the 3 day retreat in Williamsburg, VA, and heard great presentations by Drs. Robert Weinberg, Stanley Prusiner, and Stephen Lippard.

The CCR-FYI is also responsible for a Fellows Seminar Series and the GuideDocs program, which matches incoming postdocs with seasoned fellows in order to help make the transition to work at the NIH smoother. We have a steering committee that meets in Building 37 Room 4010 the 4<sup>th</sup> Thursday of the month and video-conferences with its members at NCI-Frederick. This meeting is open to all members of the CCR community and we encourage you to attend. We also have liaisons with the Fellows Committee (FELCOM) <a href="https://felcom.nih.gov/">http://felcom.nih.gov/</a> and the CCR Grand Rounds Committee.

Here are a few ways that you can get involved:

- Attend and present your work at the CCR Fellows seminar series.
- Suggest speakers for this year's CCR-FYI retreat the retreat is currently being planned for early 2004. Speakers should be dynamic and interested in nurturing young scientists or physician scientists. Past speakers have included Dr. Judah Folkman, Dr. Carl Barrett, and Dr. Andrew von Eschenbach.
- 3. Submit articles to the CCR-FYI Newsletter
- 4. Suggest speakers for CCR Grand Rounds we have recently been asked to be a part of the planning committee for CCR Grand Rounds. Please submit names that you would like to hear and/or host.

Your involvement does make a difference. Help CCR-FYI continue to be an active and important community, which represents relevant issues.

Check out the CCR-FYI website for more info: <a href="http://ccr.ncifcrf.gov/careers/fellows/default.asp">http://ccr.ncifcrf.gov/careers/fellows/default.asp</a>

**Annual Retreat** 

(<a href="http://ccr.ncifcrf.gov/careers/fellows/retreat.asp">http://ccr.ncifcrf.gov/careers/fellows/retreat.asp</a>)

Newsletter

(http://ccr.ncifcrf.gov/careers/fellows/archive.asp)

Fellows seminar series

(http://ccr.ncifcrf.gov/careers/fellows/seminars.asp)

GuideDocs

(http://ccr.ncifcrf.gov/careers/fellows/guidedoc.asp)

Questions or comments? Please feel free to contact us at <a href="mailto:nciccrfyi@mail.nih.gov">nciccrfyi@mail.nih.gov</a>.

Melinda S. Merchant, M.D., Ph.D. Senior Clinical Fellow Pediatric Oncology Branch

# The 4<sup>th</sup> Annual CCR-FYI Retreat: An Experience to Chair

Well, it has been seven months since the 4<sup>th</sup> Annual Fellow's and Young Investigator's Retreat was held on March 9-11 at the Marriott-Williamsburg Hotel in Williamsburg, Virginia, but there are several things that I would like to take this opportunity to highlight. I would like to begin by thanking those fellows who worked so hard to ensure the success of this retreat, as well as CCR Director Dr. Barrett's office for continuing support. I also wanted to thank all of you who attended for making the retreat such a success.

The annual CCR-FYI retreat has been the most ambitious program implemented by the National Cancer Institute, Center for Cancer Research, Fellows and Young Investigators (CCR-FYI) committee. The goals for the CCR-FYI retreat are to provide an opportunity for postdoctoral researchers to present their work, to allow young scientists a chance to explore career paths, to provide a forum to learn about the exciting research that is going on within NCI to fight the war on cancer, and to hear from prominent researchers outside of NCI in the field of biomedical research.

The 4<sup>th</sup> annual retreat was a huge success with a total attendance of 378 people, including fellows, keynote speakers, workshop hosts, and NCI faculty. The 347 fellows consisted of CRTA fellows, visiting fellows, clinical fellows, research scientist, post-bacs, and technicians associated with the CCR; this accounts for about 35% of all the fellows at CCR. The agenda for the retreat was quite packed with science, but also provided some time for mingling among the fellows.

We were pleased to have a number of outstanding keynote speakers at this retreat. Among our honored guest was Dr. Stanley Prusiner from Univ. of Calif., San Francisco. Dr. Prusiner received the Nobel Prize in 1997 for his discovery of prions. From MIT, Dr. Stephen Lippard and Dr. Robert Weinberg joined us. We were also delighted to have two members of the NCI faculty present keynote lectures, Dr. Shiv Grewal and Dr. J. Carl Barrett.

The retreat featured six workshops on topics including careers in science, job negotiating skills, time management, grant writing, and team science. Overall the quality of the workshops was outstanding and very well received. Alyson Reed of the National Post-doc Association.

http://www.nationalpostdoc.org/, was also in attendance at the retreat and serves as an invaluable resource to us.

In addition to providing a mixer (with a cash bar of course), we also wanted to provide other informal settings for fellows to interact with keynote speakers, workshop hosts, and NCI faculty. In 2003, a mentored lunch was started to encourage fellows to interact with prominent scientist. This tradition was continued at the 2004 retreat and expanded to include lunch and dinner. We hope that you took advantage of this opportunity and gained something from the experience.

Of course, no retreat would be complete without science presentations from CCR fellows. 224 abstracts were submitted, with 40 being asked to give oral presentations and the remainder presenting posters. For the second year in a row, Dr. Barrett's office provided eight \$1000 travel awards for the top abstracts/presentations. I would like to take this opportunity to give you a quick synopsis on the way the winners were chosen. A committee was formed to read all the abstracts from eight categories. Roughly the same number of abstracts was submitted to each category. The top ten abstracts from each category were considered for awards, with the top five abstracts being asked to give an oral presentation. CCR-FYI Steering Committee members whose abstracts were among the top abstracts selected were deemed eligible to give oral presentations, but were not eligible for a travel award. Eight groups of judges, consisting of three to four persons each, were assigned to look at ten posters or ten talks and then choose the best for an award. Choosing the winners was very difficult because all the presentations were exceptional. Last year's winners for outstanding oral presentation were: Smitha Antony, Ph.D. (LMP), Gareth Davies, Ph.D. (LEI), Jingbo Pi, Ph.D. (LCC), and Hatem Sabaawy, M.D. Ph.D. (LTIB). Outstanding poster presentation awards were given to John Crutchley, B.S. (LCCTP), Cynthia Leifer, Ph.D. (EIB), Elaine Leslie, Ph.D. (LCC) and Christina Stuelten, M.D., Ph.D. (LCRC).

The continuation of the CCR-FYI retreats relies heavily upon the participation of CCR fellows in the CCR-FYI committee. We need you to get involved. The CCR-FYI meetings are for 1 hour monthly and require only as much time as you want to invest beyond that. If you are interested in learning more

about the CCR-FYI, please see the web site <a href="http://ccr.ncifcrf.gov/careers/fellows/default.asp">http://ccr.ncifcrf.gov/careers/fellows/default.asp</a> or email nciccrfyi@mail.nih.gov .

Thanks for the opportunity to chair such an amazing event. Thanks to my co-chairs, Kwang Suh and Len Hua and to Cem Elbi (2003-2004 CCR-FYI Chair). The CCR-FYI would like to thank Dr. Jonathan Wiest from the Office of Training and Education for all his help and support.

Melissa Maderia, Ph.D. 2004 CCR Retreat Co-Chair 2004-2005 CCR-FYI Chair

# Lessons Learned from Lunch with an Inspiring Mentor

Many of us would like to have someone with whom we can discuss the deeper issues of career development. We are looking for more than scientific guidance. We want to build a career and need to know the experience of successful established scientists. But carbon copying our seniors is not good enough. We need advice tailored to our personal situations and a mentor who can think with flexibility and creativity about our talents and our needs and help us make a plan that makes sense for us. We may wonder, for example, is basic research really for me? Can I make it compatible with my personal commitments? Should I find a position that is less demanding than a position as an independent investigator to stay sane?

Several female fellows and myself presented these kinds of questions during an informal lunch discussion with Dr. Anneke Levelt Sengers, Scientist Emeritus at NIST and member of the National Academy of Sciences. Dr. Sengers recently received the L'Oreal/UNESCO award for women in science. She was one of five women around the world to be honored in this way for her scientific contributions. Her mentoring skills are not less obvious. She took each question we asked as an opportunity to pass on her wisdom and give concrete suggestions. We found her conversation so helpful that we wanted to share some points with everyone.

Unlike what some of us expected, Dr. Sengers did not preach to us about the rigors of experimental science or about the need to constantly publish papers. She assumed we were all very much aware of how to do excellent science and how to share it with the scientific community. Instead, her advice went beyond the bench. She emphasized the responsibility we have to society. As highly trained individuals, we need to advance the scientific endeavor and contribute to medical knowledge. This

may require creativity, she argued. But giving up bench science is just not an option if you enjoy it and can do it well!

How did she do it?

She knew what she wanted and she asked for it! As she interviewed for a postdoc position at NIST, while expecting her first child, she negotiated a flexible work schedule with reduced hours. She worked 6-hour days for three-quarters the regular pay for several years while she raised her children.

Hmm...not bad. But didn't she fall behind in her science compared to colleagues who worked full time and then some?

Not really. She worked with focus and she put all her energies into the tasks at hand. Usually she took some work home and complemented what she did at the lab with some evening time at the desk. She was productive, published, and got promoted to manager! Sometimes she found it hard to limit her goals and not take on more projects or responsibilities. But one learns as one lives. At home, she kept things simple: she got outside help for many household chores and did not over-crowd her children's schedules with extracurricular activities. Instead, she tried to spend personal time with the kids -although she wishes she had given them more time and attention - and passed on to them her love for learning. Her husband was convinced she should stay in science and he was a big support. (This may not be the case for some of us, but she argued that it is worthwhile to "train" husbands to be real team players - they may just rise to the occasion!) Occasionally, she took a nursing baby along to a scientific meeting.

### How was her relationship with her bosses?

She tried to maintain close communication with her bosses, although this required effort particularly at the beginning of her US career when she was shy and unassertive. With time she opened up and learned from her supervisors' management skills and dedication. Every achievement, each good thing done needs to be communicated to the boss, she told us. The boss needs to know that we do not fear challenges, and that we want to take every opportunity we can to speak about our work to others. She accepted every invitation to speak and made arrangements so she could travel and make presentations. She recommends this strongly, so none of that shying away from seminars and talks!

#### Rule of thumb?

Work to fulfill your own expectations, not other persons'. She did not feel apologetic for doing things her own way. To do this, one has to produce quality

work, she suggested. The quality of our work should command respect and having the respect of those in charge facilitates flexibility towards our needs. *Not a bad path to follow!* 

If you are interested in learning more about our discussion with Dr. Anneke Levelt Sengers or in participating in similar future discussions, please email me at martinee@mail.nih.gov.

Elisabeth D. Martinez, Ph.D. Laboratory of Receptor Biology & Gene Expression, NCI, Bethesda

### A Fresh Postdoc's Perspective of the Cold Spring Harbor Laboratory Cancer Genetics & Tumor Suppressor Genes Symposium

As part of my postdoctoral experience, I went to the Cold Spring Harbor Laboratory "Cancer Genetics & Tumor suppressor genes" symposium held August 18 – 22<sup>nd</sup>, 2004. It was my first time at an international conference. I did a poster presentation of my research on the "tumor suppression functions of the Ras-association domain family 1A (RASSF1A) protein". It was really exciting and a great professional and life experience. I met scientists at every career level; postdocs like me at their first major conference, and veteran scientists with many years of research experience and intimidating curriculum vitae.

Everything was inspiring to me starting from the location. The Laboratory campus, home to James Watson, co-discoverer of the structure of the DNA, is completely immersed in vegetation and located on an inner harbor. The labs look more like cozy summerhouses. You got the feeling that doing science here is fun and can be compatible with a relaxing joyful life.

The symposium was very well organized and the lectures were grouped by subject in a way that each section would treat related topics. The first section was about **mouse models**. The keynote address was given by David Livingston from Dana-Farber Cancer Institute Harvard Medical School, and was titled "Analysis of the multi-functionality of BRCA1". In his talk he briefly reviewed the many activities previously attributed to the tumor suppressor BRCA1. He then presented new data suggesting that the loss of BRCA1 function leads to epigenetic instability of the inactive X chromosome in breast cancer cells. Other sections included **RB and E2F**, **Therapeutics**, **DNA damage and chromosomal instability** and **Signaling**.

Frank McCormick from the University of California, San Francisco, gave the second keynote

address "Cancer targets in the ras pathway", which introduced the **therapeutics** section. He reviewed attempts made by his lab to target members of the ras pathway using small molecules. This was a long and frustrating effort until they finally succeeded in developing a raf inhibitor that is currently in a clinical trial.

I found the presentation that Jiri Lukas of the Danish Cancer society, Copenhagen gave during the **DNA damage and chromosomal instability** section to be extremely engaging. Using an interactive photobleaching assay, which allowed quantitative assessment of the space and time aspects of molecular rearrangements occurring at freshly generated DNA lesions, he showed how cell cycle surveillance proteins, ATM and ATR, propagate 'damage alerts' to down stream effectors.

The first and second afternoons were dedicated to poster presentations and were, in my opinion, the most interactive sections. I had the opportunity to present my poster about RASSF1A. Several people came by who are working on related subjects and raised some new questions and ideas to apply to my research. I was also able to interact with scientists who, despite working on different topics, were dealing with similar technical problems. Lastly, I enjoyed learning about different fields. For instance, a poster presented by Paola Arimondo, Laboratoire de Biophysique, Paris, illustrated a new and very novel antitumor agent consisting of a triple-helix forming oligonucleotide covalently linked to a chemical inhibitor of topoisomerase I - this induced targeted DNA damage to oncogenes in tumors.

Taking part in this symposium was an extremely stimulating experience. I really got the feeling that I am an insider of a great common enterprise of scientists from all over the world. I also got the opportunity to associate the faces and personalities with those names that so often I read in scientific papers.

Tiziana Cavinato, Ph.D. LIB, CCR, NCI-Frederick

### **OF INTEREST**

# Results from the 2003 CCR-FYI Retreat Scientific Survey

Feedback from fellows serves as an invaluable tool to ascertain the general pulse of what it is like to be a fellow at the NCI. Therefore, for the past two years the CCR-FYI has taken advantage of having such a large gathering of fellows at the retreat to

conduct a survey encompassing the various aspects of scientific training at CCR-NCI. The results were compiled and presented at the NCI grass roots meetings in June and had a significant impact on the NCI faculty. The faculty was very interested to hear what fellows had to say. To highlight some of the positives, NCI can be proud of many things including:

- CCR-NCI has implemented many effective programs directed towards postdoctoral fellows:
  - The Office of Training and Education works closely with the CCR-FYI
  - The CCR-FYI annual retreat has grown in scope and impact: this year ~350 postdocs attended and 96% of them returned the fellows' survey
  - Approximately 40-50% of fellows are aware of fellow-specific offices/programs and take advantage of them
- Most PIs can be counted on for their advice
- The majority of fellows rate CCR-NCI better than their previous postdoctoral position
- Fellows feel like they can ask colleagues for advice on a regular basis
- CCR-NCI fares extremely well on word-of-mouth recommendations from current fellows.

However, the results of the survey also showed some of the places where NCI can improve:

- Mentorship
  - Approx. 1/4 of fellows do not consider their PI as their mentor and seek mentorship outside of the PI relationship. (However,note that this is improved from 1/3 in the 2003 survey)
- Career Development
  - Opportunities and participation rely heavily on classes and seminars
  - Awareness of opportunities needs to be improved at fellow and PI level
  - Supervisory opportunities are built into many fellow positions so management training would enhance careers both here and in future positions
  - Career advice and transitional assistance could be improved for the postdoc as he/she is maturing towards a job search
- Respect and visibility of postdoc role in scientific endeavor
- Opportunities for presentation
  - The Fellows' Seminar Series was initiated to give postdocs an opportunity to improve on presentation skills – The survey clearly shows that fellows participate more when encouraged to do so by their PI!

- Benefits
  - With longer postdoctoral training periods, the family responsibilities are increasing for fellows in these temporary positions

Your input from the survey was heard and we would love to hear more. Do not hesitate to email the CCR-FYI at nciccrfyi@mail.nih.gov. Better vet, come to a steering committee meeting to voice your opinion and ideas. Most information regarding these meetings and other CCR-FYI events are advertised the ccr-postdocs listserv via postdocs@list.nih.gov, but you can also get information from website our http://ccr.ncifcrf.gov/careers/fellows/default.asp.

> Melissa Maderia, Ph.D. 2004 CCR Retreat Co-Chair 2004-2005 CCR-FYI Chair

# Formation of a CCR-FYI International Affairs Subcommittee

Fellows and Young Investigators, whether they be U.S. citizens/permanent residents or foreign nationals, are faced with a number of challenges during their training time. Some issues are common to U.S. citizens and foreign nationals. They pertain to adapting to a new environment, whether scientific or 'social'. Other issues are specific to foreign fellows. Some relate to understanding the way 'science works' in the US and navigating the health system, taxes, and immigration... The GuideDocs program, staff in the fellow's new lab, the 'International Service Branch' at NIH, the NIH and NCI fellowship handbooks, etc are good resources to help with these kind of questions and concerns. We encourage strongly the fellows to use those resources and we encourage strongly the people in charge of these resources to maintain and expand them. But we feel that these resources mainly address 'present' or 'daily life' issues. It seems to us that the 'post-fellowship' time is not always very well managed/prepared by foreign fellows and research institutions.

As we understand it, a vast majority of US citizens/permanent residents will pursue a career in the US after their fellowship ends. On the other hand, the majority of the foreign fellows in training in the US will come with an exchange visa (J-1 for example). It's a non-immigrant visa, whose purpose is to allow trainees to come to the US (in our case) to gain experience and knowledge in a scientific field. Then the trainees are to GO BACK to their home country in order to disseminate/bring back to their

home country the experience and knowledge they've acquired while in training in the US. Also, some foreign fellows in training at NCI already have a (permanent) position in their home country, but most of them don't.

One major concern among the contributors is how foreign fellows and institutions are handling this 'post-fellowship / going back home' stage. While an often-cited essential keyword for a successful career is NETWORKING, we feel that foreign fellows have a hard time maintaining good and 'profitable' contacts with the scientific community in their home country.

The mission statement of the 'International affairs' subcommittee would be to

- raise awareness among foreign fellows about the resources available at NIH and elsewhere to help them engage in/establish a successful scientific career
- raise awareness among institutions / policy makers / stakeholders about the specific problems and needs of foreign fellows
- if needed/asked, help develop specific resources (website/workshops/seminars...) for foreign fellows

We welcome any input or ideas to meet the needs of our visiting fellows.

For additional information, contact the Coordinators, Angeliki Magklara (magklara@mail.nih.gov), Anil Shanker (shankera@ncifcrf.gov), or Maja Bumke (bumke@ncifcrf.gov).

Anne Welcker, Ph.D. NCI-Frederick

### **DID YOU KNOW?**

#### Facts about Ft. Detrick

A couple of postdocs dug up a few interesting facts about Ft. Detrick, home of NCI-Frederick:

1. The largest aerobiological chamber ever constructed, known as the 8-ball, is located at Ft. Detrick and is listed on the National Register of Historic Places. The sphere was used to test how various biological agents would spread through the atmosphere. Portals were built into the sphere so that human volunteers and animals could be exposed to the biological agents between 1960 and 1970. (Frederick News Post, July 21, 1998).

- 2. Building 470, which was demolished last year, was the home of the U.S. Military's biological weapons program and was also known as "Anthrax Tower" and the "Tower of Doom". In 1958 there was a massive anthrax spill, though no one was killed. The program was halted in 1969 by order of President Nixon, who declared the U.S. would never use biological weapons. (Frederick News Post, May 1993 and Washington Post).
- 3. Ft. Detrick is home to the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). USAMRIID's research facility has more than 10,000 square feet of Biosafety Level 4 (BL4) and 50,000 square feet of Biosafety Level 3 (BL3) laboratory space. It is the largest containment laboratory in the U.S. There has never been a release of any dangerous organism outside the laboratory environment. In addition, a special BL4 patient containment ward is available for medical care of patients, who may have been accidentally exposed to infectious agents within the laboratory, or who may have acquired a highly hazardous disease in an endemic area. The Institute's military and civilian staff of approximately 500 includes physicians, veterinarians, microbiologists, pathologists, chemists, molecular biologists, physiologists, pharmacologists. It also includes technical and administrative staff to support research.
- 4. Ft. Detrick has other roles besides research, as well. Since 1959 Ft. Detrick has been the East Coast Relay Station of U.S. Army Strategic

Communications Command. It is a key element in the Washington Area Wideband System, which carries a variety of transmissions from the National Command Authority to worldwide users. Its management of the Detrick Earth Station of the Direct Communications Link to Moscow (the Hotline) began with construction of the station in 1973 and ultimate acceptance of the facility in 1978 by the U.S. and the Soviet Union. Today the 1110th U.S. Army Signal Battalion continues to be a focal point for international telecommunications. During Operation Desert Storm it was a vital link in the communications bridge to the Persian Gulf. (Cutting Edge: A History of Ft. Detrick, published Oct. 2000 http://www.detrick.army.mil/cutting\_edge/index.cfm ?chapter=titlepage).

> Carolyn Cohran, Ph.D. Structural Biophysics Lab, NCI,Frederick

Katherine Turner, Ph.D. GRCBL NCI-Frederick

\*\*This document was reviewed by the NCI, Fellows Editorial Board\*\*