

# Newsletter Office of NIH History

NIH History Lives Here



Yellow fever research at an NIH laboratory, 1940s

Fall 2002

Office of NIH History Staff:

Victoria Harden, Ph.D., Director Marilyn Berman, Program Assistant Michele Lyons, Curator Sarah Leavitt, Ph.D., Associate Historian & Curator Richard Myers, Photograph Cataloguer Brooke Fox, Archivist and Records Manager Caroline Hannaway, Ph.D., Historian & Editor

In this issue... NIH celebrates another centennial Mystery photos Reactions to the genetics exhibit Plans for a web-based database Childhood leukemia research at NIH

The Office of NIH History is made up of the Historical Research Unit and the Stetten Museum. It is a component of the Office of Communications and Public Liaison, Office of the Director, NIH. Contact us at: Office of NIH History, Building 31, Room 5B38, MSC 2092, NIH, Bethesda, MD, 20892 Phone: (301) 496-6610, Fax: (301) 402-1434, web site: www.nih.gov/od/museum, email: history@nih.gov

## **Mystery Photos**

Are these photos (on pages 2 and 3) of the same place?

We are in the process of digitizing and cataloguing the Office of NIH History's extensive photograph collection. Many images are already identified, but we always find examples of unknown people, experiments, laboratories, and buildings.

For example, we know that the photograph below is of the Gulf South Research Institute in New Iberia, Lousiana. Are the two photographs on the next page part of the same group? Are the buildings the same, perhaps photographed years apart? We noticed that the buildings seem to be on similarly flat land and look alike. But we need more clues!



This image is of a building in New Iberia, Louisiana, that housed the Laboratory of Central Nervous System Studies of the National Institute of Neurological and Communicative Disorders and Stroke in the 1970s. The site then passed into the hands of two private companies: the Gulf South Research Institute and the New Iberia Research Center. The center, partially supported by NIH's National Center for Research Resources, Comparative Medicine Resources, now operates a primate research facility as a contract support facility and research on human diseases using animal and computer models is conducted there.

To help preserve the Office of NIH History's collection and make it available to researchers, we have started a major project to scan every photograph and eventually to make them available over the Internet. Already, our database contains well over 2,000 images of NIH scientists, administrators, and laboratory workers; buildings and experiments; and of offices and equipment. Richard Myers, the photo cataloguer, plans to have the entire collection scanned by the end of the year.



Richard Myers is the Office of NIH History photo cataloguer. If you have photographs you would like to donate to our collection, or would like to see what we have on certain subjects, contact him at myersr@od.nih.gov.

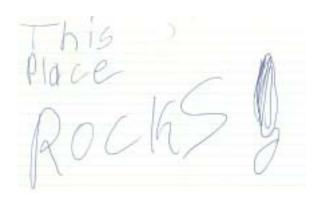
#### "Thank you for saving my life."

Almost 150 visitors posted their reactions to the Stetten Museum exhibit "Revolution in Progress: Human Genetics and Medical Research" (in the Clinical Center, Building 10). The exhibit explores the subject of genetics, explaining basic concepts about heredity and disease and asking visitors to think about genetic disorders in relation to family planning and gene therapy. The exhibit is both informative and interactive. Those who took the time to write down their comments on the provided note cards ranged from 3<sup>rd</sup> grade students, to patients and their families, and to visiting scientists. They came from eleven countries. A look at this collected commentary reveals more than just what visitors think about the exhibit; the cards also constitute a rudimentary dialogue.

Many visitors' comments were directed to the museum staff and the exhibit's sponsors. First, visitors praised the exhibit, noting that the exhibit gives "a clear understanding of disease, genetics, etc. And it is explained in comprehensible language!" Also, many visitors let us know exactly what part of the exhibit they liked best–usually one of the interactives. The "Path to Gene Therapy" game was the most frequently mentioned, although the tongue rolling exercise intrigued younger visitors. Visitors responded most directly to the sections on cancer and ethics. Many children wrote that the cancer section was "scary"– they often had personal experience with the disease. Adults praised the ethics section, and many agreed with the person who wrote that, "The medical possibilities excite me. The ensuing ethical questions frighten and concern me."

Visitors used the cards to tell us what they had learned from the exhibit– generally basic genetic concepts. Students praised the exhibit as "just what I am learning in Biology class." Teachers echoed this comment, "I wish all of my high school students could come and see this." Almost half of those who said they learned a lot were patients, who commended the explanation of how genetic diseases are inherited. For example: "This exhibit helped

me to understand the mode of transfer that caused this disease and helped me see my possibilities for healthy children in the future. I definitely found it informative and interesting."



As a 25 year old Cystic Fibrosis patient it gave me a Sense of hope to see the progress that is illustrated in this exhibit. I am here for a Clinical trial + I pray that results from this and other studies will bring about additional advances ... and quickly.

Patients and their families also used the cards to tell their own stories. Some described their own genetic condition and urged NIH scientists to keep researching. Patients and their families thanked NIH staff for their compassion and help. "I'm Ashanti De Silva, the first AMAZING gene therapy patient. Thanks to everyone who helped! Love, Me." NIH's staff inspired visitors. Many expressed the urge to work at NIH. "I feel so happy that someone would do anything to cure something or find out something just to be nice. I wish and hope someday I can be just like them." And: "I will come work here when I'm 16."

Still other visitors used the cards to express their opinions. The overwhelming consensus was "Science rocks!" Another was, "Here at NIH, I think is the only place that there is a use of taxes appropriately expended." More considered opinions took on ethical issues involved with genetics. "Tough ethical question. Everyone except reps [representatives] from insurance co[mpanies] should be involved in the decision making process."

"Revolution in Progress" will open as an on-line exhibit this fall on the Office of NIH History's web site. (www.nih.gov/od/museum/) Then the recommendation of many visitors will be accomplished: "This exhibit should be located in all places."

Michele Lyons is the Curator of the Stetten Museum. For more information on the Museum or to donate instruments, contact her at lyonsm@od.nih.gov.

## A Century of Research at NIH

NIH will mark an important anniversary in 2002: it has been one century since the creation of an organized research program at this 113-year old institution. At the U.S. Marine Service Hospital's Hygienic Laboratory (the predecessor to NIH established in 1887), doctors performed experiments and designed instruments, but did not set up an organized system of research departments and laboratories. It was not until the second director, Milton Rosenau, took over in 1900 that the Hygienic Laboratory was on its way to having a real program of scientific research.

Thirty years old when he assumed the directorship, Rosenau made several important changes. He suggested a longer period of study to teach laboratory workers about the newly discovered role of bacteria in causing disease. Rosenau also requested the outfitting of two portable laboratories that could be brought directly to the site of epidemics, and he launched publication of the *Hygienic Laboratory Bulletin* to inform other physicians about new disease research. The first bulletin, for example, dealt with studies on bubonic plague, newly arrived from Asia on the west coast of the United States.



Milton Rosenau, c. 1900

In Rosenau's first year, he oversaw every detail of the construction of a new laboratory building. Because of his interest in broadening the research capabilities of laboratory scientists, he insisted that the building contain a scientific library large enough to hold 10,000 volumes, a substantial number for that time. Laboratory workrooms would be large, with high ceilings and generous light. Rosenau wanted to be sure that the scientists' research needs would dictate the architecture.

Under Rosenau's leadership, the Hygienic Laboratory received increased attention and funding from the United States Congress. In 1902, the Hygienic Laboratory was reorganized into four divisions. Prominent scientific disciplines of that time–zoology, pharmacology and chemistry–were added to the original work on infectious diseases, now called 'bacteriology and pathology.' These new research divisions demanded new specialists, and Ph.D. scientists joined M.D.s in the Laboratory. To be sure that the government facility met the needs of the public, an advisory board of non-federal scientists was established for the Laboratory, with the first members including the leaders of medical research at that time. In the new zoology division, scientists under the division chief Charles Wardell Stiles investigated different organisms, such as the hookworm, known to cause diseases in humans. Under Stiles' leadership, the Hygienic Laboratory prepared a monumental reference work for this new field, the *Index Catalog of Medical and Veterinary Zoology*.

In the chemistry division, instead of looking at living organisms, chemists studied the chemical makeup of the body. The first chief of this division, Joseph Hoeing Kastle, worked on a method to identify and estimate the amounts of acids in the stomach. He also developed an instrument to measure the amount of hemoglobin in the blood as a test for certain diseases or health problems.

In the pharmacology division, scientists looked at the effects of different drugs on bodily functions. Reid Hunt, the first division chief, was interested specifically in the effects of alcohol, and alerted the American medical profession to the toxicity of methyl alcohol in 1902.

Scientists in the bacteriology and pathology division studied infectious diseases in the early 20th century. Through their efforts and those of bacteriologists across the country, the public health threat of diseases such as cholera, typhoid fever, bubonic plague, smallpox, yellow fever, and Rocky Mountain spotted fever was greatly diminished. In 1908, George McCoy–later a director of the Laboratory–identified a bacterium as the cause of a "plague-like" disease of rodents. The disease, Tularemia, was named after Tulare County, California, the location where McCoy first identified the bacterium. Today, research on tularemia continues to be conducted at NIH because of the disease's potential use as a biological weapon.

Though the focus of research has changed at the NIH in the past 100 years, many aspects remain the same. Scientists still study organisms, chemicals, and drugs and their relationship to disease. They still investigate infectious diseases, such as AIDS and smallpox, and change the direction of their research when necessary to include new methods or in response to threats of epidemics. Through its 27 institutes and centers, the NIH will no doubt be the site of many new discoveries in the next century of research.

#### **Research on Childhood Leukemia**

This summer Dr. Robin Rohrer, a recipient of a John J. Pisano Travel Grant from the Office of NIH History, researched the NIH sources available in the Washington, D.C. area on the history of the treatment of childhood leukemia. Dr. Rohrer, Associate Professor of History at Seton Hill University, located the NIH records at the National Archives and looked at collections at the Office of NIH History, the National Library of Medicine, and the NIH Library. The information she found will be key to her project on childhood leukemia and the larger history of treatment of childhood cancers since 1945.

At the National Archives, Dr. Rohrer reviewed the correspondence and memoranda of the directors of the National Cancer Institute (NCI) as well as the transcripts of the National Advisory Council. At the Office of NIH History, she found NCI's oral history interviews particularly helpful and also read dissertations and news clippings files. She examined important monographs on the early treatment of leukemia in the 1950s as well as difficult-to-find periodical articles at the National Library of Medicine and the NIH Library.

In the 1950s NCI played a critical role in the search for a cure for childhood leukemia. Research at the Clinical Center, the funding of extramural research, and the development of co-operative group trials made the NIH the center of activity—the focus of time, energy and commitment. The sources obtained this summer by Dr. Rohrer will help explicate and add depth to this story.



Dr. Emil Freireich, an NCI scientist, worked on childhood leukemia research in the 1950s

Today more than 75 percent of children diagnosed with acute lymphoblastic or "childhood" leukemia can be cured. This figure contrasts with the virtually zero percent cure rate of the early 1950s. Understanding the role of the National Cancer Institute in expanding the frontiers of therapy is much enhanced by the sources available at the National Institutes of Health.

## **Collection News**

A tiny vial of RNA. A huge electrophoresis machine. A black and white photograph of a celebration in a laboratory. An oral history, hundreds of pages long. Published scientific articles and news clippings. What do these items have in common? They are each part of the Office of NIH History's collection on Nobel Laureate Marshall Nirenberg. But how would a researcher locate such different types of items? At the moment, these associations are only present in the minds of our knowledgeable staff. Soon, however, we will be able to link items from our several collections and make this information available to researchers upon request.

The Office of NIH History recently embarked upon a project designed to provide access to its three main collections: scientific instruments and artifacts, documents, and photographs. Over the years items have been accessioned and cataloged into their separate collections without cross-references to the other units. However, most researchers need to locate images, artifacts *and* documents. To address this situation we decided to create a web-interface that will enable staff to search all three collections at once.



Archivist Brooke Fox works with the database.

In early August we met with representatives from the Center for Information Technology (CIT) to discuss this project. Since then, archivist Brooke Fox has been working with CIT's Rick Rowland in developing an archives database to catalog over 300 linear feet of files, audiotapes, videotapes, and books. This will then be joined with our existing photograph and artifact databases. Eventually, we will provide access to over 10,000 items maintained by the Office of NIH History.

Brooke Fox is the Office of NIH History archivist. If you would like to use the archival collection or donate records, please contact her at foxb@od.nih.gov.