

NATIONAL LIBRARY OF MEDICINE

**TOXICOLOGY INFORMATION
OUTREACH PANEL**

A REPORT OF THE 11th ANNUAL MEETING

*Widening the Door to Access: Addressing Health
Disparities Through Information*

San Juan, Puerto Rico

December 3-4, 2001

Prepared for
Specialized Information Services Division
National Library of Medicine

Prepared by
Medical Education and Outreach Group
Oak Ridge Institute for Science and Education

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National Library of Medicine
11th Annual Meeting of the Toxicology Information Outreach Panel
San Juan, Puerto Rico
December 3-4, 2002

Attendees

CHAIRMAN: Dr. Bailus Walker, Jr., *Howard University*
PROJECT DIRECTOR: Ms. Cynthia Gaines, *National Library of Medicine*
PROJECT ADVISOR: Ms. Rose Foster, *Oak Ridge Institute for Science and Education*

**Panel Members
from Participating
HBCUs/MEIs**

Dr. Theodore Bates, *Texas Southern University*
Dr. Mohamed Bayorh, *Morehouse School of Medicine*
Ms. Kathy Block, *Hampton University*
Dr. Robert Copeland, *Howard University*
Ms. Margaret Hart, *Oglala Lakota College*
Dr. Diógenes Herreño Sáenz, *University of Puerto Rico Medical Sciences Campus*
Ms. Pauline Hicks (for Dr. Henry Lewis III), *Florida A&M University*
Dr. Alfred Nyanda, *Meharry Medical College*
Dr. Douglas Ray, *Charles R. Drew University of Medicine and Science*
Dr. James Webster, *Tuskegee University*

Speakers

Ms. Gale Dutcher, *National Library of Medicine*
Dr. Emma Fernandez-Repollet, *University of Puerto Rico Medical Sciences Campus*
Ms. Rose Foster, *Oak Ridge Institute for Science and Education*
Ms. Cynthia Gaines, *National Library of Medicine*
Dr. John Haas, *Oglala Lakota College*
Mr. John Scott, *National Library of Medicine Consultant*
Dr. Melvin Spann, *National Library of Medicine Consultant*
Ms. Marti Szczur, *National Library of Medicine*
Ms. Pamela J. Wilkerson, *National Institute of Occupational Safety and Health*



**National Library of Medicine
11th Annual Meeting of the Toxicology Information Outreach Panel
San Juan, Puerto Rico
December 3-4, 2002**

Attendees

**Librarians
from Participating
HBCUs/MEIs**

Ms. Beverly Allen, *Morehouse School of Medicine*
Ms. Gladys Smiley Bell, *Hampton University*
Ms. Cynthia Burke, *Hampton University*
Ms. Victoria Delgado-Aponte, *University of Puerto Rico Medical Sciences Campus*
Mr. Larry Ellis, *Howard University*
Ms. Cheryl Hamberg, *Meharry Medical College*
Mr. Charles Hobbs, *Drew University of Medicine and Science*
Mr. Obidike Kamau, *Texas Southern University*
Ms. Rosalind Lett, *Meharry Medical College*
Ms. Juanita Roberts, *Tuskegee University*
Dr. Lauren Sapp, *Florida A&M University*

Guests

Dr. Jose Carlo, *University of Puerto Rico Medical Sciences Campus*
Dr. Beverly Coleman-Miller, *National Library of Medicine Consultant*
Dr. Guy Cormier, *University of Puerto Rico Medical Sciences Campus*
Dr. Manuel Gomez, *University of Puerto Rico Medical Sciences Campus*
Dr. Jose Hawayek, *University of Puerto Rico Medical Sciences Campus*



**11th Annual Meeting of the
Toxicology Information Outreach Panel
December 3, 2001, 9:00 a.m.-5:00 p.m.
Wyndham El San Juan Hotel
Gardenia Rooms 1 and 2
San Juan, Puerto Rico**

AGENDA – Day 1

9:00-9:15 a.m.	Opening Remarks	Bailus Walker, Ph.D., <i>Chairman, TIOP</i>
9:15-9:30 a.m.	Welcome (video)	Donald A.B. Lindberg, M.D., <i>Director, NLM</i>
9:30-9:45 a.m.	Welcome	Jose Hawayek, M.D., <i>Dean for Academic Affairs, Medical Sciences Campus, UPR</i>
9:45-10:00 a.m.	Research Projects in Pharmacology and Toxicology	Diógenes Herreño Sáenz, Ph.D., <i>Medical Sciences Campus, UPR</i>
10:00-10:15 a.m.	BREAK	
10:15-12:00 noon	NLM Update	Marti Szczur, <i>Acting Associate Director, Specialized Information Services, NLM</i> Gale Dutcher, <i>Head, Office of Outreach and Special Populations, NLM</i>
12:00-1:30 p.m.	Model Institutions for Excellence (Working Lunch)	John Haas, <i>Oglala Lakota College</i>
1:30-2:00 p.m.	TIOP Administration and Planning Training Update LISTSERV	Rose Foster, <i>ORAU</i> Cynthia Gaines, <i>NLM</i>
2:00-3:00 p.m.	Assessment of TIOP Discussion	John Scott Melvin Spann, Ph.D.
3:00-3:15 p.m.	BREAK	
3:15-4:30 p.m.	NLM/HBCU Opportunities TIOP Presentation at NMA Clinical Trials Awareness Training Bioterrorism Preparedness in Minority Communities NIOSH Progress and Services	Pamela J. Wilkerson, <i>CDC/NIOSH</i>
4:30-5:00 p.m.	Meeting Summary	Bailus Walker, Ph.D., <i>Howard University</i>



**11th Annual Meeting of the
Toxicology Information Outreach Panel
December 4, 2001, 9:00 a.m.-12:00 p.m.
University of Puerto Rico Medical Sciences Campus
Faculty Club, Pharmacy School, 5th Floor
San Juan, Puerto Rico**

AGENDA – Day 2

<i>8:30 a.m.</i>	Group Pictures	
<i>9:00-9:15 a.m.</i>	Welcome	Manuel Gomez, Ph.D. , <i>Vice President for Research and Academic Affairs, UPR</i> Jose Carlo, M.D. , <i>Chancellor, Medical Sciences Campus, UPR</i>
<i>9:15-10:30 a.m.</i>	HBCU New Initiatives <i>Community Outreach</i> <i>Drew & Hampton Universities</i> Brief Update	TIOP Members
<i>10:30-12:00 p.m.</i>	Tour of University of Puerto Rico	

TIOP: A Historical Perspective

The Toxicology Information Outreach Panel (TIOP) was initiated in 1991 by the National Library of Medicine (NLM) to strengthen the capacity of Historically Black Colleges and Universities (HBCUs) to train health professionals to use the NLM's Toxicology and Environmental Health Information Program (TEHIP) databases. Acting on this need, the Library invested in HBCUs by providing workstations on a long-term basis and training in searching the databases. Nine HBCUs that had highly visible health sciences programs were included in this initial project. The first meeting of TIOP was held at the National Library of Medicine on August 15–16, 1991 with participation by the following nine HBCUs: Howard University College of Medicine, Xavier University; Texas Southern University, Morehouse School of Medicine, University of Arkansas at Pine Bluff, Florida A& M University, Drew University of Medicine & Science, Meharry Medical College, and Tuskegee University. Hampton University was later added to the Panel.

Since TIOP's inception in 1991, the project has grown in breath and scope. In 2000, we added two institutions to the panel: Oglala Lakota College and the University of Puerto Rico Medical Sciences Campus. The TIOP project is now developing to include other areas of health disparities in addition to toxicology and environmental health and moving off the campus to include community health and public access.

Each year TIOP meets to share information about initiatives each participating school has implemented during the previous year and learn about new programs sponsored by government agencies and scientific groups involved in this type of work. This panel also continues to serve as a forum for the exchange of information regarding the use of NLM's TEHIP databases, as well as a vehicle for collaboration and coordination among HBCUs and Minority Educational Institutions (MEIs).

Cynthia Gaines
Toxicology Information Outreach Panel Project Director
Specialized Information Services Division
National Library of Medicine

OVERVIEW

AND

MEETING PRESENTATIONS

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE**

**REPORT OF THE ELEVENTH ANNUAL MEETING OF THE
TOXICOLOGY INFORMATION OUTREACH PANEL
DECEMBER 3-4, 2001**

OVERVIEW

The 11th Annual Meeting of the Toxicology Information Outreach Panel (TIOP) was held December 3–4, 2001 in San Juan, Puerto Rico, at a new member school, the University of Puerto Rico Medical Sciences Campus (UPR MSC). The theme of this year’s meeting was “Widening the Door to Access: Addressing Health Disparities Through Information.” Panel members and representative librarians from each of the member schools were invited.

Dr. Bailus Walker, TIOP chairman since the Panel’s inception in 1991, opened the meeting and thanked UPR MSC for serving as host.

Dr. Donald A.B. Lindberg, Director, National Library of Medicine, who was unable to attend the meeting, sent his introductory message by video. Dr. Lindberg complimented the Panel on its successful analysis of obstacles blocking dissemination of toxicology and environmental health information to scientists and doctors. He then encouraged the Panel to move toward the goal of making more information available to patients, families, and the public. NLM’s new database, MEDLINE*plus*, targets these groups. Dr. Lindberg asked the Panel for its support in enhancing the value of this new database in the areas of toxicology and environmental health. He announced NLM’s new Office of Outreach and Special Populations (OOSP) in the Specialized Information Services Division (SIS), which is tasked with outreach to disadvantaged populations. He commended Ms. Gale Dutcher, Head, OOSP, and Ms. Marti Szczur, Acting Associate Director, SIS, for the leadership they have provided.

Dr. Diógenes Herreño Sáenz, hosting panel member, welcomed attendees to San Juan and introduced Dr. Jose Hawayek, Dean, Academic Affairs, UPR MSC. Dr. Hawayek expressed his pleasure at having a UPR representative on the Panel, saying that this association would enhance UPR’s outreach and teaching efforts. He added that they have the capability to provide outreach to the whole Caribbean basin and the advantage of being able to work with French-speaking people.

Dr. Herreño then addressed the Panel on the research projects at UPR MSC, reiterating that the school’s resources make it an ideal health information gateway for the Caribbean. Following Dr. Herreño’s talk, Ms. Szczur presented Dr. Herreño with a copy of the book *History of the National of Library of Medicine*, signed by Dr. Lindberg.

Dr. Walker gave a very brief history of the TIOP Program for the benefit of guests and addressed all regarding the Panel's plans for the future. He explained that academic institutions can make an impact on the health status of the communities they serve. The Panel's next challenge will be to reach out to people in the communities, working with consumer groups, helping them understand health issues by providing information to them. Dr. Walker added that the presence of the librarians at the meeting is healthy for the Panel, since librarians are responsible for managing the array of information that comes to their campuses.

Ms. Szczur and Ms. Dutcher updated attendees on new initiatives and plans within SIS. Ms. Rose Foster, Manager, Medical Education and Outreach Group, Oak Ridge Institute for Science and Education (ORISE), gave an overview of the SIS training initiative for HBCUs/MEIs that ORISE coordinates and carries out for SIS. Ms. Cynthia Gaines, TIOP project director, announced the setup of a TIOP listserv that will be used for panel members to post announcements and questions and keep in touch between meetings. NLM announcements and funding opportunities will also be posted to the listserv.

Dr. John Haas, Oglala Lakota College, described the Native American Lakota people and their history and explained how the Model Institutions for Excellence project is enabling them to improve their course offerings and resources.

Ms. Pam Wilkerson, representing the National Institute for Occupational Safety and Health (NIOSH), updated attendees on recent activities and proposed to the Panel a project for collaboration, indicating NIOSH's strong desire to partner with TIOP institutions.

NLM Consultant John Scott reported the findings of the TIOP assessment he performed for NLM. His report included TIOP's mission, challenges, and opportunities. Mr. Scott's presentation was followed by an open discussion facilitated by Dr. Melvin Spann, a consultant with NLM.

The meeting continued on the morning of December 4 at the University of Puerto Rico Medical Sciences Campus. Several distinguished MSC representatives welcomed TIOP.

Dr. Manuel Gomez announced the MSC's successful competition for a \$30 million NIH research grant being used to build infrastructure on the main campus and three new research campuses. UPRMSC qualified for this grant based on its minority status as well as its participation in EPSCoR (Experimental Program to Stimulate Competitive Research). Learn more about EPSCoR at www.ehr.nsf.gov/epscor. He also described UPR's long-standing relationship with HBCUs as a plus for working with the TIOP.

Dr. Guy Cormier, Director, High Performance Computing Program, UPR MSC, described the challenging process of establishing connections with telecommunication providers from their location in the Caribbean. Now they have the capability to participate in research initiatives involving digital libraries and other research initiatives in the United States, which lays the groundwork for future collaboration with the Panel.

MSC Chancellor Dr. Jose Carlo expressed his delight with the possibility of collaborating with the Panel on future projects.

Dr. Emma Fernandez-Repollet, Director, Center of Excellence in Women's Health, UPR MSC, described the clinical, research, and educational goals and accomplishments of the Center. The clinical component strives to provide women a "one-stop-shopping" model that integrates prevention and early detection within the existing clinical services practice plan offered by the MSC faculty and includes a wide range of

clinical services. The research component, in collaboration with the campus office of Research Centers for Minority Institutions (RCMI), develops research agendas, sponsors related activities, and assesses the status of women's health research on the campus. The educational component provides continuing education for health professionals as well as educational activities and health information dissemination for health professionals and the public. The Center, in collaboration with the library, RCMI, and campus academic programs, educates women all over the island to help them make informed decisions.

Ms. Kathy Block, Panel representative from Hampton University, provided a description of Hampton's activities related to an NLM grant received in the summer of 2001.

Dr. Douglas Ray gave a presentation on Charles R. Drew University of Medicine and Science's progress in serving disadvantaged populations in South Central Los Angeles.

Following a brief question and answer session, attendees were given a tour of the Medical Sciences Campus research laboratories and the Conrado F. Asenjo Library.

Please note that the order of events as reported here is not the same as in the original agenda. The order of presentation was altered because the chairman had another commitment on Monday, December 3, and had to leave midafternoon. He appointed Dr. Robert Copeland to chair the meeting following his departure.

RESEARCH PROJECTS IN PHARMACOLOGY AND TOXICOLOGY AT THE UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS

*Diógenes Herreño Sáenz, Ph.D.
University of Puerto Rico Medical Sciences Campus*



Dr. Herreño again welcomed everyone to Puerto Rico and gave an overview of the University, which is composed of eleven campuses around the island, three of which are major campuses and are located in Rio Piedras, Carolina, and Mayaguez. The Medical Sciences Campus (MSC) is a multidisciplinary campus that supports the preparation of health professionals and includes programs in basic, applied, and clinical research. The campus is academically organized into the School of Medicine, the School of Dentistry, the School of Public Health, the School of Pharmacy, the School of Nursing, and the College of Health Related Professions.

A vital part of the campus is the Conrado F. Asenjo Medical Library. The Library was established to provide the academic community of the Medical Sciences Campus and the community of health sciences professionals in Puerto Rico access to the bibliographic resources necessary to support teaching, learning, research, prevention, and promotion of health, patient care, and health services activities.

Dr. Herreño reiterated Dr. Hawayek's mention of the library's outreach project to serve as an information gateway for the Caribbean. The purpose of this project is to improve library information services to the campus as well as to university-affiliated hospitals in the community and to other institutions in the Caribbean. The library also has a close relationship with the School of Medicine in Haiti resulting from a project supported by NLM from 1997 to 2000.

The Center for Excellence in Women's Health is a very important program because of the many outreach activities to different areas in Puerto Rico with services around the island.

The Department of Pharmacology and Toxicology prepares graduate students to be independent researchers and to help increase knowledge in pharmacology and toxicology. In addition to courses and seminars, students have access to laboratories for research projects.

There are several active research laboratories at the MSC in which many conditions are researched and studied. A few of them are described below.

The **Cardiac Biology Laboratory**, under the direction of Dr. Walmor C. De Mello, has as its main objective the determination of the influence of pathological conditions such as heart failure on the process of intercellular communication and impulse propagation. For many years the laboratory has focused on the role of the rennin angiotensin system (RAS) on heart cell communication during the development of heart failure. These studies support the view that malignant arrhythmias seen in patients with heart failure are related to impairment of cell coupling induced by the activation of the RAS. A combination of electrophysiological, pharmacological, and molecular biology techniques are used.

Another laboratory in the department is the **Vascular Pharmacology Laboratory** where research is mainly focused on cardiovascular physiology and pharmacology—especially in pathophysiological conditions such as hypertension, diabetes, and congestive heart failure. Researchers are particularly interested in understanding the mechanisms underlying endothelial dysfunction and the vascular modifications present in these conditions. Alterations in the signal transduction pathway of nitric oxide and in the RAS are studied using animal models of hypertension and heart failure.

The Quantitative Cyto-Pharmacology Laboratory, headed by Dr. Fernandez-Repollet, conducts research to determine the role of T-cells in type 1 diabetes mellitus and the expression of insulin receptors in Molt-4 cells in diabetes mellitus.

In the **Laboratory of Tumor Biology**, under the direction of Dr. Baez, research is designed for the study of the molecular pathogenesis of squamous cell carcinoma of the head and neck. A goal is to establish the nature and frequency of multiple alterations in this kind of carcinoma.

The main interest of Dr. Ortiz, director of the **Neuropharmacology Laboratory**, is to study the neurological modulation of glutamate transmission in the prefrontal cortex in cocaine sensitization.

Dr. Herreño heads the **Chemical Carcinogenesis Laboratory**, which supports the study of metabolic activation and DNA adduct formation of xenobiotics. The main activity is the study of polycyclic aromatic compounds and nitropolycyclic compounds to characterize biological markers that can be used to assess the risk for cancer in the Puerto Rican population and other populations as well.

Dr. Herreño closed by thanking the NLM and the trainers from both ORISE and NLM who conducted training on NLM's toxicology and environmental health databases on the campus earlier in the year. Following the training, Dr. Herreño was presented with a new computer system from NLM that the students are now using to access NLM's databases. He also expressed his gratitude for the opportunity that was afforded him to participate in the Medical Information Course supported by the National Library of Medicine in the Marine Biology Laboratory at Woods Hole Research Center. This experience was valuable and the information learned there is now being shared with his students.

NLM UPDATE: MAJOR CHANGES

*Ms. Marti Szczur, Acting Associate Director
Specialized Information Services Division
National Library of Medicine*

Ms. Szczur reported on major changes to the Library. She began by outlining the goals of the NLM's strategic *Long Range Plan: 2002–2005*, which are:

1. Organize Health-Related Information and Provide Access to It
2. Encourage Use of High Quality Information by Health Professionals and the Public
3. Strengthen the Informatics Infrastructure for Biomedicine and Health
4. Conduct and Support Informatics Research

Ms. Szczur expressed enthusiasm for the public outreach TIOP will be involved in, related goal 2. She explained that there is now a link from the Health Information page on the NLM Web site, which will increase public and professional access to TOXNET.

Ms. Szczur stated that MEDLINE*plus* has been a huge success. It started with just eight health topics and now contains information on over 500 health topics. MEDLINE*plus* covers many new toxicology and environmental health topics, with information provided by SIS. News articles on each topic are updated daily, making MEDLINE*plus* a good source for current health news. A Spanish language MEDLINE*plus* is under development.

The new NLM Gateway serves as a portal to NLM. Although Gateway is still under construction, it can be used to search the NLM Web site and databases. Ms. Szczur encouraged panel members to send any feedback on the use of the Gateway to NLM.

Ms. Szczur noted that Genbank—a database collection of gene sequences—has really taken off. NLM assumed responsibility for the database in 1992, when there were fewer than one million sequences in it; it now has over 11 billion.

The Visible Human Project is still very active. The number of licenses to use the data to link the visual knowledge form of the human body to symbolic knowledge formats (such as names of body parts) is growing.

NLM funds awards to medical institutions and companies to develop innovative medical projects that use the capabilities of the Next Generation Internet (NGI). These projects involve applications that require a high bandwidth, such as the following applications listed on NLM's Web site:

- **Networked 3-D Virtual Human Anatomy.** The goal is to build a virtual human cadaver based on the Virtual Human dataset. An online virtual cadaver would be available to a wide range of students who could explore the virtual cadaver with a variety of tools.

- **Biomedical Tele-Immersion.** By combining teleconferencing, tele-presence, and virtual reality, tele-immersion enables teachers and students to interact with three-dimensional models. This is especially useful in surgical education. NCI guarantees data privacy and security.
- **National Medical Information ExtraNet.** The National Emergency Information Infrastructure Consortium will create a plan for implementation of a secure National Emergency Medicine Information Extranet to improve emergency care across the nation. The primary application to be developed will enable interlinked standards-based emergency encounter registries, then feedback to providers, and 'just in time' multimedia educational and treatment protocol services. The project will create an open architecture to enable other layered applications in the future.

As these projects develop, Ms. Szczur suggested that TIOP members may want to track their progress and consider applying for these grants.

SIS unveiled a new Web site in 2001 and welcomes feedback. The categories on the main SIS Web site are Toxicology and Environmental Health, Chemical Information, HIV/AIDS, and the Directory of Health Organizations, which links to DIRLINE and Health Hotlines. The Toxicology and Environmental Health category should be of interest to TIOP members; it includes access to TOXNET and ChemIDplus.

The SIS Web site provides access to publications and lecture guides and links to other resources such as the Poisoning, Toxicology, and Environmental Health page of MEDLINEplus and the Toxicology subset in PubMed. The Gateway provides access to the other resources within the Library.

Another interesting and exciting area of NLM's new Web site offers consumer toxicology and chemical information on special topics for those who need more than the introductory information on a topic found in MEDLINEplus. SIS is experimenting with compiling information on a few special topics, such as West Nile Virus and chemical warfare agents. The information on chemical warfare agents, originally compiled about a year ago, was updated after the events of September 11. These special pages have been publicized in a few places recently and have received many more hits. Special topics Web pages in progress address arsenic and biological warfare agents.

SIS is also working on a mechanism for providing authoritative and current information quickly in response to new issues of concern as they arise. For example, immediately after September 11 there was much concern about lingering airborne hazards. There was a lot of information in the press, much of which was not necessarily accurate. SIS initiated a pilot project to determine if a current "ToxNews" profile could be quickly compiled containing links to news articles and government sites with accurate information.

SIS is currently focusing on using emerging technology to increase the speed of access to TOXNET. SIS is also concerned about the security of database content and is mindful that some of the chemical information could be used to do harm. The use of TOXNET is growing: in August 2001 TOXNET had over 120,000 hits, up from about 80,000 hits in August 2000.

SIS is working toward adding some specialized new databases to TOXNET. A major focus is to make chemical information available to the public. TIOP members are invited to be beta testers of the new consumer-oriented database prototypes.

Dr. Jay Brown, a consultant with NLM since 2000, has spent about 10 years collecting information on hazardous chemicals and the workplace and organizing the information into what he calls “Haz-Map.” Users can browse Haz-Map by hazardous agents, the type of agent, occupational disease, or high-risk jobs. (Because Haz-Map might call to mind a geographical map, “Risky Business” is being used as a working name for the project.)

Another database, compiled by Dr. Henry Delema through an NLM contract, contains brand name household products. Users can select a category, like auto products, and the database will return a list of brand name products, provide the warning label text and the ingredients, and then lead the user to reliable information about specific chemicals from the Hazardous Substances Data Bank. This database can also be searched by chemical and can be used to determine which household products contain specific allergens.

Ms. Szczur closed by encouraging TIOP members to give SIS feedback and to offer their own ideas on how to develop the TOXNET databases.

NLM UPDATE: OUTREACH

*Ms. Gale Dutcher, Head of Office of Outreach and Special Populations
Specialized Information Services Division
National Library of Medicine*

Ms. Dutcher first explained that NLM's original mission was to collect, organize, and disseminate information. In 1988 that mission was modified by an appropriations bill and expanded to include outreach—primarily to health professionals. In more recent years, NLM has moved to include outreach to the public. Following are examples of NLM's outreach activities, which together illustrate the breadth of NLM's work and might generate ideas for TIOP institution participation.

Community Outreach

Community outreach activities at NLM started with AIDS outreach in 1994. That year the first awards were to community organizations, libraries, and health departments to make HIV/AIDS-related health information more accessible to those infected, their caregivers, and the general public. Since that time NLM has continued this annual program, with over 140 awards made to support the purchase of computer equipment, Internet connectivity, training, and materials development. The awards range from \$25,000 to \$40,000 with a total of approximately \$4 million awarded to date.

Funded projects trained Hispanic teens—who then trained others (peer outreach)—to use computers to find health information, enabled a number of public libraries to be the first in their communities to offer Web access, enabled community-based organizations (CBO) to develop and translate information into Chinese, provided connectivity and training for at-risk middle school students living in public housing, assisted CBOs and African American churches in Boston to develop HIV/AIDS brochures for use by ministers, enabled a CBO to develop a Spanish language Web site for their clients and community, and facilitated the implementation of a computer resource center and training at a center for recovering substance abusers.

Based on both the success and the lessons learned from the AIDS Community Outreach Projects, SIS implemented a pilot project to support minority CBOs in improving access to consumer health information for their communities to help reduce health disparities. Organizations were offered \$50,000 to carry out two-year projects. Very few community organizations applied and four awards were made to medical libraries and universities. The following projects will be conducted: (1) **Hmong Health Information Promotion**—Northern Wisconsin Area Health Education Center, Inc., Wausau, Wisconsin; (2) **Women's Health Network**—Virginia Commonwealth University, Richmond, Virginia; (3) **Internet Access and Training for African American Churches**—Edward G. Miner Library, University of Rochester Medical Center, Rochester, New York; (3) **Accessing Online Information for Immigrant and Refugee Health**—Harborview Medical Center, Seattle, Washington.

Native American Outreach

NLM has a number of outreach programs specifically targeting Native Americans. The Tribal Connections project is funded through the NN/LM at the University of Washington. There have been three phases to this project, which has connected to 16 tribes and Alaska Native villages in the Pacific Northwest. The project, which included training in Internet use and accessing health resources, was expanded to additional tribes in the Southwestern United States. Most importantly, a field manual for evaluation was created by the Regional Medical Libraries and is available on the NN/LM Web site at <http://nml.gov/evaluation/guide>.

National Network of Libraries of Medicine

The new five-year contracts for the RMLs were awarded in May 2001. In addition to resource sharing and training of librarians, the RMLs both conduct and fund outreach projects. These are for both health professionals and for consumers.

Outreach to the Hispanic Community

NLM would like to develop programs that meet the needs of the Hispanic community as well. In 2001, one of the NLM Library associate fellows developed a tactical plan to assist NLM with developing priorities to work with Hispanic communities. She included information to help NLM understand the populations. Some suggested tactics include developing (1) a specific training curriculum that emphasizes how NLM's resources can be applied to Hispanic American health inquiries and include culturally relevant search examples; (2) a culturally competent "one-stop-shopping" health information portal for government-published Hispanic health information; (3) bilingual product and service descriptions, promotional materials, and various training manuals.

Mini Web Sites for Specific Populations

NLM has begun to develop a set of mini Web sites that target specific populations or geographic areas. The first one completed is on Arctic Health (<http://arctichealth.nlm.nih.gov>). This first mini Web site will be transitioned to the Consortium Library of the University of Alaska at Anchorage where they will also collaborate with the Institute for Circumpolar Health. Under development is a Web site for Asian Americans/Pacific Islanders and others are in the planning stage.

Other Projects

SIS/NLM has other new projects underway including collaboration with the United Negro College Fund Special Programs to support consumer health projects on college campuses and in communities, and coordination of presentations and training for the National Medical Association Annual and Regional meetings.

NLM UPDATE: TRAINING

**Ms. Rose Foster, Manager
Medical Education and Outreach Program
Oak Ridge Institute for Science and Education**

Ms. Foster gave a slide presentation overview of the FY2001 training outreach activities for the NLM/SIS. The overview covered training activities at TIOP's member schools and other HBCUs. Ms. Foster reported that over 80 HBCU/MEI schools belonging to the National Association for Equal Opportunity in Higher Education (NAFEO) consortium have been trained since the inception of the TIOP panel.

In FY2001, 25 TOXNET trainings were delivered; of these, seven were conducted at HBCUs and MEIs. Ninety-five participants attended the HBCU/MEI training courses. Sixty-five of the participants represented HBCUs/MEIs and thirty represented community-based organizations. TIOP schools are encouraged to invite community members to the training courses.

Ms. Foster gave an overview of each of the TOXNET training courses taught and NLM's resources used. Following are descriptions of each of the TOXNET training courses and where they were taught in FY2001.

The National Library of Medicine's Toxicology and Environmental Health Databases is a full day course designed to meet the needs of end users who need information on the adverse health effects, safety and handling, and detection of potentially hazardous substances, as well as standards and regulations governing these substances. This course was taught in FY2001 at the University of Tennessee Health Science Center, Memphis, Tennessee; University of Puerto Rico (San Juan); Drew University of Medicine and Science, Los Angeles, California; Oglala Lakota College, Pine Ridge, South Dakota.

The Delta Connection is regionally targeted to identified HBCUs/MEIs and community-based organizations in the lower Mississippi Delta Region to assist them in addressing problems and concerns about the impact of environmental hazards in their communities. This course had been taught primarily at Xavier University, but was conducted in FY2001 at Jackson State University in Jackson, Mississippi.

TOXNET on the Web is designed to increase the awareness of minority health professionals in gathering information to address community concerns related to environmental exposures. This course includes a component on environmental justice. This course was taught at the Minority Health Professions Foundation in Atlanta, Georgia, specifically for HBCU representatives of the TIOP panel.

Ms. Foster explained that in addition to the toxicology and environmental health training courses, three HIV/AIDS courses are available. Jackson State University received both the HIV/AIDS and toxicology and environmental health courses. In FY 2001 six HIV/AIDS workshops were conducted. One hundred and seven participants attended the training courses, including 22 representatives of HBCUs and MEIs. The HIV/AIDS courses include the following.

Connecting People and Resources: HIV/AIDS Information Resources from the National Library of Medicine is a full day course focusing on the facts about HIV/AIDS, specifically in the African American and Latino communities, including prevention, transmission, and disease progression, as well as how to

locate HIV/AIDS information services provided by government agencies and private organizations. This course was taught at University of Tennessee-Memphis, Jackson State, and Howard University.

A Click Away: Access to Reliable Health Information is a half-day training designed to increase healthcare decision-making skills for communities impacted by HIV/AIDS and other health disparities. This course was taught at the Office of Minority Health Skills-Building Conference in Miami, Florida; at Howard University in Washington, D.C. for the Targeted Provider Education Demonstration Project; and at NLM for representatives from Spelman and Bennett Colleges in Nashville, Tennessee.

Open Hearts, Open Minds is a half-day course designed for ministers and faith-based leaders in the African American community to address the prevalence and prevention of HIV/AIDS and barriers to implementing related support services within inner-city churches. This course was taught in Knoxville, Tennessee.

The positive community response to these courses, demonstrated by the high number of community representatives who attended, shows how sharing NLM's information resources through courses such as these can provide the resources necessary to address health disparities.

MODEL INSTITUTIONS FOR EXCELLENCE

Mr. John Haas
Principal Investigator for Model Institutions for Excellence
Oglala Lakota College

Mr. John Haas, Principle Investigator for Model Institutions for Excellence (MIE) at Oglala Lakota College (OLC), discussed the Lakota culture, the school's history, and the MIE program. Oglala Lakota College is one of 32 tribal colleges in the United States. The college is located on the Pine Ridge Indian Reservation in South Dakota, which has been ranked as the poorest county in the United States for the past 20 years and has an 85 percent unemployment rate. The county receives federal aid to develop new programs, but, because of limited housing on the reservation, individuals hired to staff these programs live outside of the reservation, thus taking money out of the county.

Pine Ridge Reservation has 20,000 residents and is located in the southwest corner of South Dakota. South Dakota has a population of approximately 700,000, which is relatively small. Oglala Lakota College has an enrollment of 1400 students and has been in existence 30 years. The college has nine centers and administrative offices located across the reservation, and one site in Rapid City, South Dakota. Each center has its own course offering. Communities on the reservation can be 75 to 125 miles apart. Many of the instructors travel 300 to 500 miles a week. To allow instructors adequate time to teach, classes are scheduled in three-hour time periods. Many courses are offered as distance learning classes. Creating distance learning classes was a challenge due to the numerous phone exchanges across the reservation and state.

Mr. Haas described components of the mission and purpose of Oglala Lakota College. The components include benefiting the Oglala tribe, developing programs of study, and working hand-in-hand with the tribe. The Lakota Studies Department ensures each study program includes a cultural component. All students are required to study Lakota language, history, and government. The college is actively involved in the community. Mr. Haas displayed a picture of Oglala Lakota College instructors and students participating in a community buffalo kill ceremony.

Prior to Oglala Lakota College being chartered, residents attended classes offered by other colleges at satellite locations on the reservation. In 1974, the college awarded its first associate degrees. The college was granted accreditation in 1983, 1985, and 1989 for several bachelor degree programs and in 1994 for a masters program. Because of the numerous social problems on the reservation, many of the courses offered are in human services, education, and nursing. The college offers a masters degree in Lakota leadership, which focuses on Lakota values, culture, and history. In 1998, the college added a masters degree in educational administration.

Mr. Haas reported that Oglala Lakota College has been awarded a National Science Foundation (NSF) Model Institutions for Excellence (MIE) grant. The initiative seeks to improve the science, engineering, and mathematic (SEM) departments at schools that educate students who are underrepresented in the area of SEM. Prior to receiving the grant, the schools' SEM resources were primitive and limited to what could be found on a bookshelf. The MIE grant has allowed the college to develop the infrastructure and technology to gain access to the Internet and other resources that were previously unavailable. All nine of the centers that make up Oglala Lakota College are considered MIEs. The NSF has awarded MIE grants to several HBCUs.

The college's initial challenge as an MIE was to develop an interdisciplinary environmental science degree program to teach students and residents how to protect the land, air, and water across the reservation. Graduates of the program have assumed key positions in these areas on the reservation. To avoid producing too many environmental science majors, and to allow more options for students, an associate degree in science, engineering and math was developed. Students who complete this program can then transfer to a four-year engineering college. Mr. Haas explained it was difficult to align their courses with the curriculum of other engineering colleges. Oglala Lakota College's latest course offering is an associate degree in information technology. With the explosion of technology on the reservation there is a need to have people in place to provide maintenance and service.

Mr. Haas reported that one half of one percent of the workforce in the school's nursing program is Native American. Twenty years ago, there were no Native American nurses working in the reservation hospital and clinics. The nursing program is an expensive program of study and has limited resources, but it has made an impact in the community. Margaret Hart, current OLC TIOP member, reported that NLM's Toxicology and Environmental Health Databases training course, taught at the school last summer, was incorporated into the nursing curriculum.

NIOSH UPDATE

Ms. Pamela Wilkerson

***Extramural Community Liaison, Minority Health Outreach, Office of the Director
National Institute for Occupational Safety and Health***

Ms. Wilkerson talked about the general nature of NIOSH work performed after the September 11 terrorist attacks and an outreach program that might be of interest to TIOP members. She brought the following brochures and reports to share:

- *Fatal Injuries to Civilian Workers in the U.S., 1980–1995*
- *National Occupational Research Agenda (NORA), update 2001*
- *NIOSH Strategic Plan, 1997–2002*
- *New Directions at NIOSH*

NIOSH is part of the Centers for Disease Control and Prevention (CDC), and their mission is to assure safety and health and prevent work related injuries. The NIOSH Headquarters is in Washington D.C., and additional offices are in Atlanta, Georgia (administrative arm); Spokane, Washington; Cincinnati, Ohio; Morgantown, West Virginia; and Bruceton, Pennsylvania. There are six divisions of NIOSH: Division of Applied Research and Technology; Division of Surveillance, Hazard Evaluations and Field Studies; Education and Information Division; Division of Respiratory Disease Studies; Division of Safety Research; and Health Effects Laboratory Division.

In terms of the recent terrorist attacks, NIOSH has been very busy. The New York Department of Health called NIOSH on September 11 to do some environmental sampling. A 24-hour operations center was established at the Centers for Disease Control and Prevention in Atlanta, Georgia. In New York, some of the rescue workers were getting injured by falling debris, and NIOSH addressed this and other emergency situations. Overall, New York and NIOSH had a good capacity for emergency preparedness.

The NIOSH respirator guidelines received a lot of attention after September 11. NIOSH sponsored a conference in New York December 10-11 to hear and document first responder experiences. Topics included anthrax, bioterrorism, on-ground assistance in key areas, working within New York City, the U.S. Postal Service's experiences with anthrax, U.S. Environmental Protection Agency technical assistance, the Occupational Safety and Health Administration's document development, providing information and guidance in emergency situations, and hospitals.

After this brief introduction to NIOSH, Ms. Wilkerson said that NIOSH would like to propose a project for collaboration with TIOP members. NIOSH workplace diversity statistics are not as high as NIOSH would like them to be, so NIOSH would like to partner with some of the minority health institutions.

The proposed program is called the NIOSH Collaboration with Minority Institutions of Higher Learning Extramural Research Program. Specifically, the program is intended to:

- Increase the knowledge and skills of under-represented minority graduate/post graduate students in occupational safety and health through short-term fellowship opportunities available at NIOSH supported research and academic centers
- Develop institutional capacity at local HBCUs and Hispanic- and Native American-serving institutions to develop a core occupational safety and health science curriculum
- Foster linkages and collaboration among faculty and students in developing core components of occupational safety and health programs at minority serving institutions
- Increase the pool of trained under-represented minority students available for longer-term fellowships and employment opportunities at NIOSH and NIOSH partnership sites
- Increase the number of under-served minority students with advanced degrees or core knowledge of occupational safety and health.

Any TIOP members interested in assisting with the development of this project should send their contact information to Ms. Wilkerson.

TIOP ASSESSMENT REPORT

Mr. John Scott
National Library of Medicine Consultant
Center for Public Service Communications (CPSC)

Mr. Scott explained that the Specialized Information Services (SIS) Division of NLM obtained his services as an external consultant to assess the impact and efficacy of the Toxicology Information Outreach Project (TIOP). The materials used for the assessment include personal interviews with panel members and NLM representatives, background informational materials on TIOP, research information on environmental mental health, ORISE (Oak Ridge Institute for Science and Education) summaries, and a compilation of reports from TIOP meetings.

Panel members were provided a brief overview of the assessment findings and a copy of the assessment report, which included the following information:

- Impact of TIOP in the participating schools in terms of strengthening its infrastructure and academic program structure
- Positive outcomes of NLM's outreach efforts to increase informational access to toxicology and environmental health issues in minority communities
- TIOP barriers that include informational sharing at membership schools and panel inconsistencies with communication and face-to-face contact
- TIOP challenges for continuity and sustainability
- NLM efforts to address environmental justice
- NLM perspective regarding TIOP relationship
- Future TIOP initiatives for panel exploration

TIOP Panel Discussion: Self-Assessment and Accountability

The feedback TIOP members received from the assessment report set the framework for discussion of self-assessment and accountability. Specifically, the group discussion focused on exploring ways to strengthen the TIOP link between NLM and member schools and identifying opportunities for overall project enhancement.

Members were encouraged to engage more in cooperative planning with NLM in two ways:

- (1) Collaborate on exploring ways to expand outreach efforts in the areas of consumer health and health disparities and
- (2) Chair member will serve in an advisory or consultant capacity to NLM in exploring other ways in which TIOP could further serve the library, and by addressing pertinent TIOP issues. One point of contention was that NLM does not give the panel members sufficient guidance; working together in this manner will improve the situation. In addition, two panel members were

appointed to develop guidelines and forward the materials to the TIOP chair. The guidelines will serve as an NLM directive for TIOP.

Another discussion addressed how to more effectively involve NLM and the librarians from the membership schools with informational exchanges and updates. The librarians could assist NLM with generating ideas for project expansion. The suggestion was made to examine the scope of possible services in this area and to further explore the opportunity.

Additional areas of discussion in assessing the efficiency, quality, and overall effectiveness of TIOP were:

- **Utilization of panel expertise more effectively in achieving project goals and promoting relationships and networks at the professional and community levels.** The suggested solution is to assess skills and areas of interests among panel members to determine in what capacity they may better serve.
- **Program structure for service gaps.** Potential areas of program expansion may be restricted because of funding guidelines. The suggested solution was for the membership schools to collectively seek additional funding sources and apply as a collaborative network, thereby eliminating individual membership school applications for TIOP program expansion.
- **Communication and contact among panel members.** The suggested solutions were to update contact information on the membership roster and include the librarians and to create a listserv for electronic communication.
- **Meeting follow-ups for a continuum of discussion and feedback.** The suggested solution was to ask NLM for administrative support.
- **Orientation for new panel members.** There was no solution provided for this topic.
- **Mechanisms that will improve the quality of TIOP meetings.** The suggested solution was to adapt or develop a model based on NLM's Board of Regents, which has subcommittees that meet before or during lunch to discuss panel issues and generate suggested resolutions that will speed the decision-making process.

The panel discussion on self-assessment and accountability ended with a motion to continue the dialogue in a future meeting. Earlier in the discussion, there was mention of the possibility of NLM scheduling an interim meeting in the spring of 2002. The meeting will be in the form of a workshop retreat and the agenda will be strategic planning for the next five years.

NLM/HBCU OPPORTUNITIES: CLINICALTRIALS.GOV

***Ms. Gale Dutcher, Head, Office of Outreach and Special Populations
Specialized Information Services Division
National Library of Medicine***

Ms. Dutcher addressed potential collaboration with HBCUs/MEIs to increase minority participation in clinical trials. Although NLM does not conduct clinical research, it does promote awareness of and disseminate information on clinical trials. Ms. Dutcher stated that ClinicalTrials.gov is an excellent vehicle to inform people about clinical trials and the clinical trials process—and this increased awareness could lead to increased participation in clinical trials. She then gave a brief demonstration of the NLM's ClinicalTrials.gov database.

The FDA Modernization Act of 1997 mandated that a clinical trials database be created to include all trials for serious and life-threatening diseases and that it be made available to the general public. NLM has been involved with clinical trials since 1989, when it provided the AIDS Clinical Trials Information Service to the public.

The FDA Modernization Act of 1997 supersedes the legislation that enabled NLM to provide the AIDS Clinical Trials database. ClinicalTrials.gov's coverage includes all trials for serious and life-threatening diseases. ClinicalTrials.gov now contains about 5,600 clinical trials sponsored by the National Institutes of Health (NIH), the pharmaceutical industry, and other government agencies. NIH is not limiting its participation to life-threatening diseases or to a strict definition of a clinical trial. NIH is including all clinical studies (for all diseases) that they sponsor, as well as some natural history studies.

The pharmaceutical industry is required to submit descriptions of their clinical trials to NLM for inclusion in this database within 21 days of approval. Other government agencies, and all other entities that sponsor clinical trials, are also required to submit descriptions. Currently over 62,000 locations worldwide are represented, although most of these trials are located in the United States. Many clinical trials may also have locations in other parts of the world. The statistics show that ClinicalTrials.gov is getting over 2 million hits in a month.

Each ClinicalTrials.gov record includes a summary of the purpose of the trial, recruiting status (whether the trial is open or closed to new patients), criteria for patient participation, contact information, which phase the trial is in, and the drug or treatment under study.

Through its work with the public and voluntary health organizations, NLM/SIS discovered that it is important to the public that the database is free and that user information is not tracked. NLM proposes to intensively train ORISE trainers in searching ClinicalTrials.gov. ORISE trainers will visit NLM to talk to the developers of the database to learn the indexing, the process of where the different trials originate, the relationship with the U.S. Food and Drug Administration (FDA), and about future FDA guidance to pharmaceutical companies to register their protocols with ClinicalTrials.gov in order to get approval. NLM would work with the TIOP members to promote ClinicalTrials.gov at their institutions and communities to raise awareness.

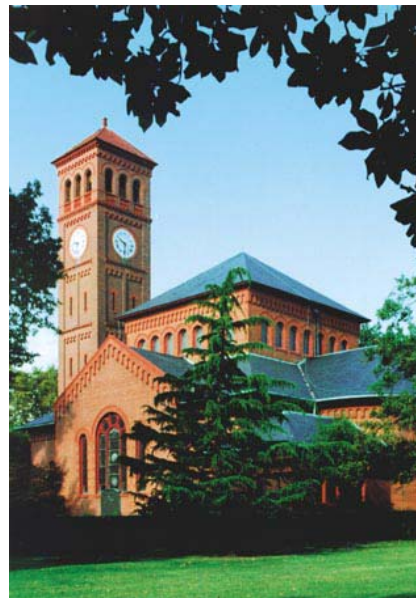
NLM hopes the TIOP Panel will help inform its communities about ClinicalTrials.gov and how it may be used. NLM could incorporate ClinicalTrials.gov into its basic training at TIOP schools geared for

consumers and health professionals. Ultimately NLM wants to expand its consumer training activities. NLM would like to work with TIOP as a collaborative partner to promote awareness of the ClinicalTrials.gov database and use it as a vehicle to help consumers, especially to understand the clinical trials process and be comfortable with the concept of a clinical trial. Thus, they will be able to make their own informed decision whether to enter a clinical trial without any pressure from NLM, because NLM is not an agency that conducts clinical trials. Ms. Dutcher knows that there are potential pitfalls with what NLM is suggesting.

**HBCU SHOWCASE:
HAMPTON UNIVERSITY
HAMPTON, VIRGINIA**

Ms. Kathy Block
Assistant Professor, School of Nursing

Ms. Block reported that NLM recently awarded Hampton University School of Nursing \$364,933 to buy computer equipment and to instruct students and faculty in using health sciences databases. The students and faculty will be exposed to current health information through the use of online instructional technologies and clinical data systems.



The faculty of the HU School of Nursing implemented an innovative, community-based, family focused curriculum in 1999. The courses are designed to prepare students to practice in community as well as traditional settings. Each undergraduate nursing course has an informatics component in which students learn about technologies used in the patient and family care setting. "Students and faculty will participate in extensive practical, hands-on training," said Cynthia Burke, HU Nursing Information System Project Director and School of Nursing Librarian. "What they are taught can be immediately applied in the clinical and classroom settings. In addition, they can use what they learn at Hampton University now and throughout their careers."

Hampton University School of Nursing is the oldest continuous nursing baccalaureate program in Virginia. The first master's and doctoral programs in nursing at a historically black college or university were started at Hampton University. The School is approved by the Virginia Board of Nursing, and is fully accredited by the National League for Nursing Accrediting Commission.

**HBCU SHOWCASE:
CHARLES R. DREW UNIVERSITY OF
MEDICINE AND SCIENCE
LOS ANGELES, CALIFORNIA**

Dr. Douglas Ray
Director, Pharmacy Technology Programs



Dr. Ray, although unable to be present at the meeting, prepared a slide presentation describing outreach activities at Drew and narrated the presentation to the attendees via conference call. He explained that the Drew community has a history of unemployment, poverty, and racial unrest. In this economically depressed area, lack of accessible health care was identified as a contributing factor to the Watts riots of 1965. To address this issue, the McCone Commission recommended that a general teaching hospital be established in 1996. The Charles R. Drew Postgraduate Medical School was founded as the academic partner of the Martin Luther King, Jr. County Hospital, and Drew was incorporated as a private, non-profit educational institution in 1966. Since that time the geographic area has grown to encompass 124.2 square miles and the racial composition has diversified to include Latino, Asians, African Americans, and others. As of 1994, the unemployment rate was 20%, 39.7% of the population was below the federal poverty level, and 45.7% of households were headed by a female.

As a result of the school's origin and location, the mission statement of the Charles R. Drew University of Medicine and Science is to conduct medical education and research in the context of service to a defined population so as to train persons to provide care with competence and compassion to this and other underserved populations. The current Drew vision is that by 2020 Drew will become a recognized leader in urban healthcare issues that disproportionately affect disadvantaged populations.

Drew has an opportunity to affect change, especially because of its unique population and the national need for this population to be better characterized in regards to cultural, psycho-social, bio-behavioral, and other impediments that influence outcomes and have hampered clinical research and healthcare delivery efforts. Drew has a unique relationship with the community, and unlike many academic institutions, a mission to address the issue.

Drew's colleges and programs include the following.

The College of Allied Health uses a unique "career ladder" approach, allowing students to begin working in health professions after completion of a certificate program. They may choose to build on this foundation by working toward an associate or bachelor's degree.

The College of Medicine is a joint program with UCLA School of Medicine, where the student completes the first two years at UCLA (basic medical sciences) and clinical years at Drew. The College also offers numerous other postgraduate programs through its 14 departments at King/Drew Medical Center.

Drew is the only medical school in the nation that is both historically black and Hispanic-serving. The ethnic composition of Drew medical students is 47% African American, 29% Latino, 7% white, and 18%

Asian/other, and more than half of its graduates practice in underserved areas. As such, Drew is uniquely positioned to be of service in its local community and responds to that need by providing and participating in more than 100 community outreach and service programs that address minority and inner-city health issues including diabetes, hypertension, HIV/AIDS, clinical trials, stroke and epilepsy, injury management, trauma care, and women's health. The university continues to expand its outreach into additional areas of minority health. Under development are the Los Angeles Eye Institute and the King-Drew Children's Hospital, which will further the goal of better health care for minorities in the area.

Mainstream solutions do not fit unique and culturally diverse communities. The university has taken the growing problems of intractable health disparities, the identification of additional health disparities, and unnecessary deaths and suffering associated with race, ethnicity, or socioeconomic status in its community and found solutions. The university's mission and commitment have made the difference. Health disparities must be eliminated. It is not an academic exercise—it is a moral imperative and the number one public health issue in America and requires frontline expertise and focused commitment. Learn more at www.cdrewu.edu.

HBCU UPDATES

FLORIDA A&M UNIVERSITY
TALLAHASSEE, FLORIDA

Ms. Pauline Hicks (for Dr. Henry Lewis III)
Science Research Center Library



Ms. Hicks, representing Dr. Henry Lewis, reported on activities at the Florida A&M University (FAMU) College of Pharmacy and Pharmaceutical Sciences Environmental Health and Toxicology Research Program, which meets environmental challenges through research, education, and service. The year 2001 marked the 50th anniversary of the College. Established in 1951, the College has been designated a Center of Excellence by the Florida Board of Regents. It has produced over 1,600 pharmacists and 20 percent of the nation's African American pharmacists. Over 60 percent of the African American PhDs in the pharmaceutical sciences graduated from FAMU in the past decade. Alumni have pursued careers in medicine, research, academia, industry, retail, and hospital industries. As the need for more pharmacists in Florida increases, the College's enrollment remains at an all-time high. Currently, the number of FAMU pharmacy students totals over 750 in the professional program and 104 in the graduate program. According to the American Association of Colleges of Pharmacy (AACP), FAMU has the 10th largest pharmacy program in the nation. Degrees offered include the doctor of pharmacy (Pharm.D.), master of science (M.S.), and doctor of philosophy (Ph.D.). The Master of Public Health (M.P.H.) degree is also offered through the Institute of Public Health, which was established in 1996 and is administratively housed in the College of Pharmacy.

Faculty members are known for their research in cancer, cardiovascular diseases, HIV/AIDS, diabetes, Parkinson's disease, anti-inflammatory steroids, and environmental health and pollution. These investigations and others have enabled several faculty members to receive patents for their work and publish articles in renowned national and international scientific journals.

Moving beyond the classroom and laboratories, the FAMU College of Pharmacy continues to provide invaluable service to its surrounding communities, the State of Florida, and the nation. It operates the pharmacy of the new Leon County Health Department on Orange Avenue in Tallahassee, Florida, providing free and low-cost medications to patients. In addition, the college operates a drug information education center on campus to answer all medication-related questions for the public and healthcare professionals. Users can dial toll-free from anywhere in the U.S. for current drug information. As reported in the 2001 Pharmacy Directions-PharmD publication, the FAMU Health Department Pharmacy invited all citizens in Leon County to its May 30, 2001 grand opening and free medication review at the new Leon County Health Center. This essential community health center opened its doors in August 2000 to provide primary care services through the Bond Community Health Center to thousands of area people who lack access to doctors because of high costs. The Center's pharmacy facility provides free and low-cost medicines and counseling to eligible patients. The College of Pharmacy's Drug Information and the pharmacy component of the Science Research Center Library provide information retrieval support to the Bond Center and other related medical sciences disciplines.

Participation in grant-supported activities from agencies such as the Agency for Toxic Substances and Disease Registry (ATSDR) enhances the FAMU researchers' ability to address minority issues as they relate to environmental health. Dr. Adreinne Hollis, principle investigator for a toxicology curriculum for communities trainers' manual, and Dr. Magdi Soliman, principle investigator for the ATSDR/MHPF environmental health and toxicology research program, provide an infrastructure for graduate students and faculty to participate in collaborative research. The Environmental Health and Toxicology Research Program (EHTRP) is designed to fill gaps in scientific knowledge of health impacts of the most common environmental hazardous substance. The main objective of the funded research projects in the second five-year cycle of this program is to understand the link between exposure to hazardous substances such as lead, zinc, and manganese, and their human health effects. The results of these studies will reduce the uncertainties of public health assessments and will provide the most effective measures to prevent or mitigate the adverse human effects of these toxic substances. In addition to these projects, the college participates in the NLM's Toxicology Information Outreach Program, which provides tremendous impact on FAMU research efforts. A high-powered PC workstation is provided to the university for increased availability to electronic information. Selected faculty and faculty librarians engage in periodic NLM information retrieval updates as affiliates of TIOP. Service to the community is a pertinent result of these efforts.

Ms. Hicks also discussed the Science Research Center Library, a branch of Coleman Memorial Library, which offers a wide variety of electronic systems to assist researchers with quick access to life science, medicine health sciences, and other relevant databases. WebLuis, a statewide system, offers a growing selection of periodical indexes and other electronic resources, including Internet access.

In Fall 2001, the SRC Library introduced an instruction alcove housing twelve Apple Power Macintosh G3 workstations with access to WebLuis. A program of bibliographic instruction is designated to introduce students to the research resources and search strategies needed for effective library use. The goal is to assure that students and faculty members are library literate.

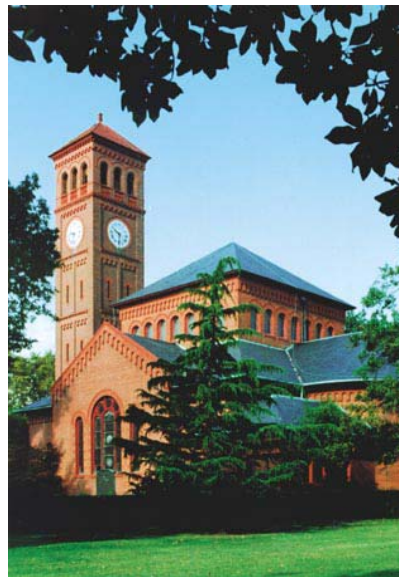
NLM's TIOP has also impacted Public Health and PharmD students. Numerous toxicology searches were conducted by graduate toxicology, Public Health, and PharmD students during their search for the latest developments on selected topics. The FAMU College of Pharmacy board examination passing rate was 100 percent. Five students are presently enrolled in the PhD environmental sciences program. These students rely on the toxicology databases to support their research activities. Future plans of the College of Pharmacy include increased enrollment in the environmental toxicology graduate program from 12 to 16 students, realization of a new pharmacy building with upgraded research laboratories, and an upgraded main library.

HOWARD UNIVERSITY WASHINGTON, D.C.

Dr. Robert Copeland (for Dr. Robert Taylor)
Department of Pharmacology

Dr. Copeland, who represented Dr. Robert Taylor at this year's meeting, reported that the efforts made in the department over the years have led to several new initiatives, which are outlined below.

Courses in Biomedical Informatics – Courses were developed for both medical and graduate students.



Upgrading of the Learning Resources Center

- The center, which includes computer assisted instruction and multimedia aides, was established to support the academic curriculum of the College of Medicine through the use of instructional technology .
- Additional new informatics laboratories were developed in the Pharmacy and Dental schools.

Division of Informatics

- Biomedical Communications supports the multimedia needs of the undergraduate and graduate medical education curriculum of the College of Medicine and the professional activities of its students, administrators, faculty, and staff. The Division is responsible for training of College of Medicine faculty and staff in the use of information technologies.

Telemedicine Office

- The Medical Informatics Program initiated a telemedicine effort. This office is headed by Dr. Ernest Carter. This has resulted in a hardwire connection between Howard University Hospital and Roy Schneider Hospital in St. Thomas, Virgin Islands, where Howard has staff. Daily department CME conferences as well as medical consultations are sent to the Virgin Islands.
- Other proposed sites include medical schools in South Africa and the Washington, D.C. jail.

Grants

- Collaborative Study on the Genetics of Alcoholism (COGA)
 - The goal of the Howard University Collaborative Alcohol Research Center (CARC) is to stimulate, strengthen, and facilitate multi-disciplinary research and collaborations that will lead to the reduction of alcohol morbidity and mortality among minority populations with emphasis on African Americans.

- The Center is housed within the Department of Pharmacology, Howard University College of Medicine and Hospital, which serves as the hub for the management of all administrative and scientific functions. Dr. Robert E. Taylor, Chair of the Department is the Principal Investigator.
- The National Human Genome Center (NHGC) at Howard University

The goal of the NHGC is to bring multicultural perspective and resources to an understanding of human genome variation and its implications for disease prevention and health promotion. Dr. Georgia Dunston, Chair of the Department of Microbiology is the Principal Investigator.

Towards this end, their mission is to explore the science of and teach others about DNA sequence variation and its interaction with the environmental in the causality, prevention, and treatment of diseases common in African American and other African Diaspora populations.

- Establish research programs on the genetic and environmental causes of diseases common among African Americans and other peoples of African descent, beginning with diabetes, asthma, prostate and breast cancers, and related phenotypes
- Develop population-based genetic epidemiology resources for the study of common complex diseases in African American and African Diaspora populations
- Develop a database of DNA sequence variation characterized within the population-based resources of African Americans
- Develop new analytical tools and statistical models for genetic epidemiology and DNA sequence studies
- Provide increased opportunities for research training and mentoring in genetics, genetic epidemiology, statistical genetics and bioinformatics, molecular genetics and DNA sequence analysis
- Form community-based partnerships for the education and greater participation of African Americans and other African Diaspora populations in human genome research at all levels of investigation and in the dissemination of knowledge
- Launch the first international conference on human genome research in Africa.

Louis Stokes Health Sciences Library

The Louis Stokes Health Sciences Library is a new four-story, 80,000 square foot library near the medical school. Based on specific programmatic requirements and site constraints, the Library building plan is generally organized so that each level is divided into three zones. The first zone is dedicated primarily to special functions, some of which will be occupied after the normal operating hours of the library. The second zone includes the majority of staff offices and most of the stacks for back-issue periodicals and monograph collections. The third zone houses the majority of the library's user seating/study space.

The entrance to the Health Sciences Library building is at the base of a tower that leads into a large four-story lobby atrium, known as the Health Sciences Commons. The Commons will include exhibits, a building directory and information kiosk, security desk and visitor seating area with views of the entry plaza. The Commons will also be used for health fairs, fund raising, receptions, and as a pre-function lobby for a complex of meeting rooms. The meeting complex includes the following rooms:

- 40-seat presentation/community resource center that is furnished with flexible conference table seating, state-of-the-art media equipment (to facilitate distance learning), and data ports, which allow for the room to be divided for smaller groups and to be used as problem based learning classrooms
- 15-seat room—with a video projector, portable video equipment, retractable screen, white boards (wired for future electronic whiteboard) and network ports at table surfaces for laptop use—for videoconferencing with medical professionals in other cities
- five-seat telemedicine center and storage room, set up for telemedicine consulting and telephone diagnosis. The room has two workstations, plus network access for laptops, videoconferencing cameras and equipment on moveable carts, and telephones.

Conclusions

As is evident in the preceding description, the new Health Sciences Library provides the many important resources, services, and new technologies needed to support the students, faculty, and researchers of all the university's Health Sciences programs and the staff of Howard University Hospital. It will also greatly improve the university's ability to share critically important information with health professionals and researchers at many other institutions and to provide outreach services to the surrounding community.

Our Vision for the Future

- Just recently, a partnership began with the DC Public Library and the College of Medicine. This partnership is an initiative of the university and the mayor's office, directed toward promoting the total community's wellness.
- Degree-granting Department of Informatics
- Geographical Information System (GIS) for Environmental Health. The primary objective of this project is to educate and train healthcare professionals in the use of GIS software to develop maps that will show the link between environmental exposure and community health.

TIOP played an essential role in stimulating interest in informatics at Howard University. Informatics is now crucial to the medical professional because it allows management of a large volume of medical information. Because of the HBCU initiatives the outgrowth of multiple projects has been created.

MEHARRY MEDICAL COLLEGE

NASHVILLE, TENNESSEE

Dr. Alfred Nyanda

Director, ToxMed Reference Library

Dr. Nyanda reported that Meharry Medical College continues to benefit from the computer workstation from the National Library of Medicine. The computer is used to access NLM's toxicology, environmental and occupational health, and hazardous waste information resources.

This year, for the purposes of expanding its services to the public, Meharry invited the state medical examiner to tour the facilities and demonstrated the capability of identifying toxicants.

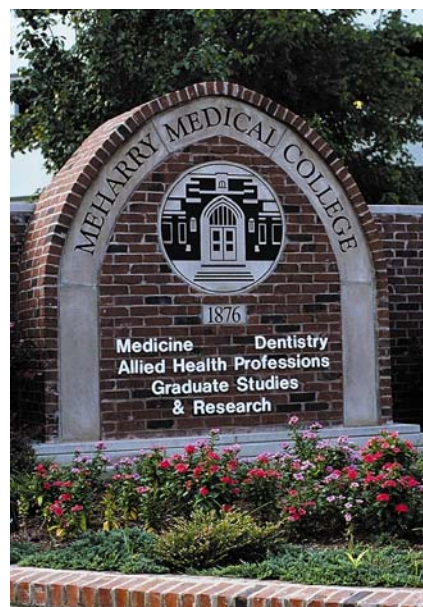
The Meharry Medical Library works in cooperation with the toxicology department to train medical, dental, allied health, and graduate public health students to search TOXNET, TOXLINE, and other related NLM databases. The reference librarians provide drug information to clinical staff through the clinical librarianship programs for the Department of Internal Medicine and Family Medicine. In addition, drug information is provided to the public, pharmaceutical representatives, and unaffiliated healthcare providers. Medical library staff members perform mediated literature searches for faculty preparing proposals for research grants and assist faculty in locating clinical trials, statistical data, and other specialized drug and toxicology information relating to disease management and environmental factors that adversely affect minority and underserved populations.

A 15-computer workstation in the library provides access to the Internet and to the NLM databases for students, faculty, and the public. Plans are to expand this area to develop an electronic classroom equipped with 20 computers on a shared LAN designed specifically for training in searching the NLM databases, electronic journals, and other healthcare related databases. The campus-wide network provides off-site access to these resources.

The library is in the process of updating the Web site to include direct links to consumer health information sites, drug information, and resources to assist the public in finding agencies and resources to help them better understand health-related problems and environmental issues.

There are four areas of concentration for future outreach projects:

1. Marketing the availability of TOXNET and other environmental databases to specific campus populations to increase their awareness and enhance their information literacy skills
2. Working in partnership with Metro General Hospital to provide lay information and basic search training and access to information to patients and clinical staff



3. Forming partnerships with local churches to help identify environmental hazards and occupational health issues that affect minority and underserved populations and to provide training and support in locating pertinent information
4. Providing support for community health centers in disseminating public health information pertaining to environmental hazards and occupational health information.

MOREHOUSE SCHOOL OF MEDICINE

ATLANTA, GEORGIA

Dr. Mohamed Bayorh
Department of Pharmacology and Toxicology



Dr. Bayorh reported that Morehouse School of Medicine (MSM) Multi-Media Center (MMC) continues to serve as a major NLM resource library for the Southeastern/Atlantic Region. The TOXNET program in the school serves MSM faculty and students as well as the Atlanta University Center and the community at large. Multiple strategies have been employed to ensure that the students and faculty at all sites have access to a broad range of learning and research resources, including TOXNET and other NLM databases. MMC and the Division of Information Technology provide ongoing group and one-on-one orientation for all faculty and students.

In line with the need to provide information to healthcare professionals in rural, inner city, and other areas without access to medical library resources, MSM annually sponsors educational conferences on women's healthcare, HIV/AIDS, managed care, family practice, and pediatrics. Also, MSM offers training for community physicians through a series of faculty development workshops.

The National Center for Primary Care, which will open in 2002 as a national resource for education, research, and policy leadership, will contain a state-of-the-art conference center and clinical skills training laboratory.

MSM is continuing to restructure and reorganize in order to become pre-eminent in the education of minority M.D., Ph.D., and M.P.H. students, emphasizing primary care and community service. The M.D. class will increase from 32 to 64 students by 2005. This year's class of 41 students is the largest ever at the school. Morehouse received an \$80,000 donation from the UPS Foundation to fund two four-year scholarships. MSM encourages minorities to enter the health care field by sponsoring educational pipeline programs for young African American students interested in health care.

Researchers in each of the programs, centers, and institutes at MSM as well as the individual clinical and basic science departments utilize the NLM-supported databases for their work and for obtaining extramural funding. As young as MSM is, it has surpassed a large number of the older medical institutions in the procurement of extramural research funding. MSM is second in overall NIH research support among Georgia's four medical schools. MSM ranks ahead of almost a third of the nation's medical schools in competitive research awards.

Morehouse seeks to become a leader in defined areas of research, addressing, in particular, diseases that disproportionately affect minority populations. MSM received several awards toward this end. The Program for Healthcare Effectiveness Research of the Clinical Research Center has received \$2.1 million from the Agency for Healthcare Research and Quality to develop programs to improve access to healthcare and service quality for low-income African Americans. Also, the Health Promotions Resource Center, part of the MSM Department of Community Health and Preventative Medicine, was recently awarded \$1 million by the U.S. Department of Health and Human Services to form a coalition of organizations that will address substance abuse prevention and care in west Georgia.

OGLALA LAKOTA COLLEGE
PINE RIDGE, SOUTH DAKOTA

Ms. Margaret Hart
Nursing Department



Ms. Hart reported that on August 20–21 the NLM training team from ORISE conducted sessions on the use of NLM databases. Representatives from programs on the reservation were invited. They were selected for their ability to return and teach others in the program and community.

The following programs were represented at the sessions:

- The Oglala Sioux Tribe (OST) Environmental Protection program
- OST Health Committee
- Indian Health Service Environmental Program
- Indian Health Service Nursing Department
- Diabetes Project Research Director and Assistant
- Oglala Lakota College Nursing Faculty
- Pine Ridge College Center Director
- Pine Ridge High School (unable to attend)

Currently the nursing curricula are being reviewed to integrate the use of NLM databases for teaching. The databases have been incorporated as required reference sources in the course Psychiatric Mental Health Nursing (NRS 234).

On August 22, a meeting was held with Amy Sagalkin, aide to Senator Johnson, to discuss healthcare funding and the future of telemedicine. The meeting was facilitated by NLM and was attended by tribal members and non-members concerned about health care for native people.

The nursing department is looking forward to partnering with the TIOP members and the dedicated people of NLM. This is a partnership destined for continued progress in addressing Healthy People 2010 goals and improving health care for Oglala Sioux tribal members.

TEXAS SOUTHERN UNIVERSITY HOUSTON, TEXAS

Dr. Theodore Bates
College of Pharmacy and Health Sciences



Dr. Bates reported that Texas Southern University's (TSU) College of Pharmacy and Health Sciences has received approval from the Texas Higher Education Coordinating Board to offer a master of science degree program in healthcare administration and M.S./Ph.D. programs in biomedical and pharmaceutical sciences. NLM's online databases will play an important role in the training of graduate students enrolled in these programs.

Texas Southern University recently became a member of the world-renowned Texas Medical Center. Participation in the Medical Center will increase the visibility and success of the college's health professions programs, lead to increases in practice affiliation agreements, and promote active and productive research collaborations with other medical center institutions. The College of Pharmacy and Health Sciences will establish a physical presence in the Texas Medical Center by acquisition of sufficient space to house three pharmacy and three health sciences faculty members, six biomedical and behavioral research scientists, three research assistants, and three professional staff. The proposed facility will also house the professional practice experiences programs, accommodating approximately 150 students each semester, a satellite Drug Information Center, and a conference area.

In his course entitled "Computer Applications in Pharmacy," Dr. Bates continues to train 120 first-professional year Doctor of Pharmacy students in the use of NLM's literature search databases. The databases covered are PubMed, MEDLINEplus, AIDSTRIALS, AIDS DRUGS, ClinicalTrials.gov, and ChemIDplus. He also offers introductory and advanced training classes to faculty, staff, and undergraduate and graduate researchers in the College of Pharmacy and Health Sciences.

Ms. Norma Bean, Associate Director, Robert Terry Library, continues to provide a program of bibliographic instruction (covering primarily the TOXNET databases) to students and faculty in the Departments of Chemistry and Biology. Texas Southern University's Robert James Terry Library plans the following new projects:

- A training seminar conducted by library staff for faculty members engaged in the establishment of a new graduate program in urban planning and environmental policy. Once trained on the use of toxicology information, these faculty members will be in a better position to guide student learning activities in the area of environmental policy. The training program will emphasize information available on federal standards for the handling, transport, and disposition of toxic chemicals. Emissions of toxic chemicals into the environment by companies reporting such releases will also be covered. When students come aboard next fall, there will be faculty trained on the use of the TEHIP databases.

- Initiation of a partnership with the Environmental Justice Center in the Thurgood Marshall School of Law. The faculty, staff, and students will be trained in the use of the toxicology databases for legal programs in which they are involved.
- The faculty advisor for the graduate program in environmental toxicology will be working closely with the library staff to train students who will be trainers for community groups. Students will also serve as resource persons for environmental information pertaining to the community.

Community Outreach Programs in HIV/AIDS, hypertension, diabetes, and cigarette smoking awareness and prevention are strongly based on the NLM literature search databases.

TUSKEGEE UNIVERSITY
TUSKEGEE, ALABAMA

Dr. James Webster
Chairman, Department of Biomedical Science
School of Veterinary Medicine



Dr. Webster reported that searching the TOXNET databases has made a tremendous difference at Tuskegee University. At first, many faculty were reluctant to apply the computer to various phases of the educational process. Today, information resources gained from searching TOXNET and other databases and computers are integrated into lectures, research activities and grant writing, technical paper writing, and the recruitment of faculty, staff, and students. A master degree program in environmental toxicology was developed, serving as a precursor for a doctoral program. Indirectly, toxicological information was provided to the Tuskegee community and surrounding areas through campus visits of one day and two-week periods by high school students and their parents.

Information from TOXNET was integrated into the undergraduate program through chemical courses and supported the current curriculum in environmental sciences. In the professional program, the TOXNET databases inspired veterinary faculty and students to demonstrate the role of veterinary medicine in identifying the importance of toxicological information in the home and community. Each year, all third-year veterinary students write a paper on a given toxic chemical and the role of veterinary medicine in making society aware of the chemical. The students use the TOXNET databases to obtain information about the chemical physical properties of the compound, toxicokinetics (absorption and distribution, metabolism and excretion, and toxicity), and environmental fate/exposure potential of the compound, where it could be found, and the possible biological effects. The papers also include the possible pathways chemicals follow to reach humans. One student conducted a summer project, collecting blood samples of household pets and analyzing them for lead content. The concept was to use the animals as sentinels to predict if exposure to lead could have occurred in the home. The clients were informed of the findings.

The TOXNET databases had their greatest impact on the research and graduate studies programs. The research activity in toxicology was expanded to determine the multigenerational effects of mercury in mice and rats. For this proposal, the TOXNET databases were used to search the literature for the most current findings on the topic and to determine what information resulting from the proposed study could be added to the database. The proposal was funded for a five-year period providing development of the research infrastructure with opportunities to train graduate students as future scientists in the area. The mercury project was an avenue for Tuskegee faculty and graduate students to exchange information with other scientists at other universities and at national scientific meetings.

The project has been expanded to include a second study involving the multigenerational affects of chlordane with two additional faculty and three students. Again, using the databases permitted the scientists to utilize the most current information during the grant-writing process and has resulted in more than \$2.5 million for the environmental toxicology program.

Use of the NLM databases has played a role in the community as well. Members of the Macon County Alabama Delegation and Macon County Commissioners along with a businessman, without consent of the citizens, agreed to place a dump site in Macon County. This dump site would have received waste

from all parts of the United States. The president of Tuskegee University, Dr. B. Payton, called upon the departments of environmental sciences and biomedical sciences to determine the health hazards of the waste materials, which would be contained by this dump site. The scientists used the databases to acquire the information and forwarded it to the president. The president called upon the assistance of Jesse Jackson, who led a protest rally. The results of the activities prevented the completion and use of the dump site. In addition, the accomplishments of the citizens of Macon County encouraged the citizens of Lowndes County to stop the construction of an approved dump site in their area.

In the future, elementary and high school students must be informed about the TOXNET databases. If success can be reached at this level, the amount of training at the college and professional levels would be less expensive. In addition, the prevention process would include a more diverse population and demonstrate a need for more under-represented minorities to enter the biomedical and health professions. TIOP needs assistance from NLM to encourage other institutes to provide funding which would include personnel, software development, and hardware to reach elementary and high school levels.

**UNIVERSITY OF ARKANSAS AT
PINE BLUFF**
PINE BLUFF, ARKANSAS

Mr. Edward Fontenette
Director, Watson Memorial Library



Mr. Fontenette was unable to attend the meeting, but submitted this written report.

In the summer of 2001, the University of Arkansas at Pine Bluff (UAPB) received approval for the master of science in addiction studies. This report focuses on that initiative.

Description of the Program

The University of Arkansas at Pine Bluff is a member of the National Substance Abuse Consortium, which consists of 36 Historically Black Colleges and Universities (HBCUs). The consortium was created in 1993 in response to the White House Initiative on HBCUs and Executive Order 12876. The addiction studies curriculum is a national model.

The master's in addiction studies requires 36 hours of coursework, including 300 hours of supervised field experience. Program graduates will be required to complete from 2,000 to 6,000 hours of supervised work experience through employment, staff development, or volunteer service prior to sitting for the certification/licensure examinations administered by the Arkansas State Board of Examiners of Alcoholism and Drug Abuse Counselors, the Arkansas Prevention Certification Board, and the Arkansas Substance Abuse Certification Board.

Need for the Program

Ten percent of the population in Arkansas has a problem with substance abuse addiction, alcohol use, or other drug abuse. Many inmates in Arkansas prisons have substance abuse-related situations. Arkansas also has a high rate of adult smokers. The addiction studies program would increase the number of professionals prepared to provide addiction counseling and prevention services. Individuals currently employed in the addiction field also would have the opportunity for career advancement. Graduates of the program will be prepared to develop, implement, and manage community-based outreach programs.

The community outreach education courses will be delivered on the UAPB campus, the UAPB North Little Rock site, and through the statewide distance education network. Faculty will engage in substance abuse research and disseminate new information on alcohol and drug abuse prevention, treatment, intervention, and outreach approaches—especially for minorities and rural populations. The information will be disseminated throughout the state for use by citizens, researchers, service providers, and policy makers. The addiction studies faculty will collaborate with the UAPB Nursing Department and 1890 Cooperative Extension Program on providing community-based presentations across the state on a wide range of health-related issues. An Interdisciplinary Advisory Council comprised of UAPB faculty and administrators and representatives from substance abuse prevention and treatment agencies will meet quarterly to advise program personnel on current issues and program development and operation.

Act 1588 of 1999 established the State Board of Examiners of Alcoholism and Drug Abuse Counselors and provided for the licensure and registration of alcoholism and drug abuse counselors. The legislation requires the establishment of licensure and certification requirements to promote high standards of professional performance for those engaged in the practice of alcoholism and drug abuse counseling to protect the public from being misled by incompetent and unauthorized persons. One of the requirements for licensure/certification is that an individual hold a master's degree from an accredited college or university in health, behavioral science, or another appropriate field.

The Hughes Act of 1970, formally known as the Comprehensive Alcohol Abuse and Alcoholism, Prevention, Treatment, and Rehabilitation Act (Public Law 91-616), established state grant and contract programs for the development of prevention, treatment, and community-based intervention programs which has led to job growth in alcohol and drug abuse treatment services over the past 30 years. UAPB surveyed substance abuse personnel throughout the Arkansas Delta to determine their need for additional academic preparation. Twenty-three individuals expressed an interest in continuing education courses, 26 professionals indicated that they would enroll in the master's degree program, and 28 agency heads reported a willingness to participate in the internship program. UAPB has letters of support for the establishment of the master's program from the certification boards and several prevention and treatment facilities across Arkansas.

Program Costs

New funds to support the program would come from faculty research grants, student tuition and fees, and state revenues allocated for health-related programs. An existing faculty member will be appointed as the program coordinator. Existing faculty in social work and counseling will teach in the program. Professionals at area prevention and treatment agencies will be employed as adjunct faculty. Three new faculty would be employed in the second year of program operation. Funds for a portion of the faculty salaries would come from faculty and staff attrition. Additional library holdings and instructional equipment and facilities also would be required.

UAPB Addictive Treatment Resource Center

The purpose of the Addictive Treatment Resource Center is to support the master's degree in addiction studies. A library of 5,000 documents will include books; audio and video materials; government and non-government reports; articles about drugs, drug use, and treatment of drug addiction; and drug policies and drug history documents. The library will serve as a source of information in keeping with NLM's minority health outreach efforts. The center will be open to the public and welcome visitors.

Electronic full/text will be linked from the catalog to all Web documents. Entries will be formatted in three ways: (1) bibliographic, document type, and language; (2) bibliographic with added subject headings; and (3) bibliographic, subject, and ISBN and call numbers.

NLM advisors will assist in primary and secondary identification and in providing training for the faculty and staff on accessing MEDLINE and TOXLINE databases. The TIOP panel will provide expert advice and guidance in the development and maintenance of the resource center.

XAVIER UNIVERSITY OF LOUISIANA
NEW ORLEANS, LOUISIANA

Dr. Ann Barbre
College of Pharmacy



This year's report, submitted by Dr. Barbre, who was unable to attend the meeting, focuses on the activities undertaken at Xavier University under the auspices of the Agency for Toxic Substances and Disease Registry (ATSDR) funded Environmental Health and Toxicology Research Program with the collaborative involvement of the Environmental Protection Agency and the National Institute of Environment Health Sciences. The ATSDR began a cooperative agreement/partnership with the Minority Health Professional Foundation (MHPF) in 1992 in an attempt to develop and enhance research in environmental health and toxicology at the MHPF member institutions. The ATSDR Substance-Specific Applied Research Program (SSARP) is a particular initiative directed toward defining the relationships between identified adverse human health outcomes and the exposure to hazardous substances in the environment. As a member of MHPF, Xavier University College of Pharmacy has participated in these collaborations since their inception under the broad umbrella of the Xavier Institute of Bioenvironmental Toxicology, which is housed in a research wing connecting the College of Pharmacy with the new University Library.

The Xavier efforts seek to address the identified priority data needs of ATSDR for 36 substances for which information is incomplete in regard to concentrations in the environment; mechanisms of transport or exposure; bioavailability from various media; or acute and chronic effects to reproduction, development, neurotoxicity and other health effects. During the previous funding cycle investigators at Xavier primarily directed their work toward research on benzene and its developmental toxicity on certain species of fish, rats, and mice. In addition, benzene, lead, cadmium, and zinc were measured in urban and rural soils, water, sediments, and aquatic organisms and zinc neurotoxicity was evaluated in rats by behavioral, subcellular, and electrophysiological methods after sub-chronic administration.

At present, three individual research projects in the College of Pharmacy are funded under ATSDR. These projects focus on manganese, an ATSDR identified substance found at National Priorities List (NPL) sites. More specifically, these projects center on:

1. Evaluation of acute and intermediate duration toxicity of manganese in rats to determine dose-response data by oral administration as well as histopathologic effects on reproductive systems.
2. Assessment of dose-response neurotoxicity of manganese tetroxide, manganese sulfate, and manganese phosphate in rates on behavioral and neurological function in rats.
3. Study of multimedia exposure to manganese and nickel in soils, sediments, and surface dust of metropolitan New Orleans compared to a control rural site to evaluate the presence of metals in communities of specific urban and rural socioeconomic groups.

In addition to the research endeavors aimed at ATSDR hazardous substance-specific priorities, the program continues to enhance existing capabilities in environmental health and toxicological research and provide research opportunities for students in these important areas. The ATSDR research program at Xavier is under the direction of Dr. Howard Mielke, Professor, at Xavier University College of Pharmacy.

**NATIONAL LIBRARY OF MEDICINE
TOXICOLOGY INFORMATION OUTREACH PANEL**

MEMBERSHIP DIRECTORY

2001-2002



**Toxicology Information Outreach Panel
Membership Directory
2001-2002**

Dr. Bailus Walker, Jr., Ph.D., M.P.H., CHAIRMAN
Professor of Environmental and Occupational Medicine
Howard University College of Medicine
520 W Street NW
Washington, DC 20059
TEL: (202) 806-6300
FAX: (202) 806-4898
E-mail: bwalker@fac.howard.edu

Ms. Cynthia Gaines, PROJECT DIRECTOR
Division of Specialized Information Services
National Library of Medicine
8600 Rockville Pike, Bldg. 38A
Bethesda, MD 20894
TEL: (301) 496-3669
FAX: (301) 480-3537
E-mail: gainesc@mail.nlm.nih.gov

Ms. Rose Foster, PROJECT ADVISOR
Medical Education and Outreach Group
Oak Ridge Institute for Science and Education
PO Box 117, MS-37
Oak Ridge, TN 37831-0117
TEL: (865) 576-9342
FAX: (865) 241-3851
E-mail: fosterr@ora.gov

**PARTICIPATING HISTORICALLY BLACK COLLEGES AND UNIVERSITIES
AND MINORITY INSTITUTIONS**

Dr. Ann Barbre
Associate Professor, College of Pharmacy
Xavier University of Louisiana
7325 Palmetto Street
New Orleans, LA 70125
TEL: (504) 483-7439
FAX: (504) 485-7930
E-mail: arbarbre@xula.edu

Dr. Mohamed A. Bayorh
Department of Pharmacology and Toxicology
Morehouse School of Medicine
720 Westview Drive SW
Atlanta, GA 30310-1495
TEL: (404) 752-1714
FAX: (404) 752-1164
E-mail: bayorh@msm.edu

Dr. Theodore Bates
Professor of Pharmaceutical Sciences
College of Pharmacy and Health Sciences
Texas Southern University
3100 Cleburne Street
Houston, TX 77004
TEL: (713) 313-7164 (direct: 1892/7)
FAX: (713) 313-1091 or 4219
E-mail: trbates@netropolis.net

Ms. Kathy Block
Assistant Professor, School of Nursing
William Freeman Hall, Room 127G
Hampton University
Hampton, VA 23668
TEL: (757) 727-5473
FAX: (757) 727-5243
E-mail: kathy.block@hamptonu.edu

Mrs. Margaret Hart (*outgoing representative*)

Ms. Sarah Danner (*2002-2003 representative*)

Nursing Department
Oglala Lakota College
PO Box 861
Pine Ridge, SD 57770
TEL: (605) 867-5857/6
FAX: (605) 867-5724
E-mail: sdanner@olc.edu

Mr. Edward J. Fontenette

Director, Watson Memorial Library
University of Arkansas at Pine Bluff
Pine Bluff, AR 71611
TEL: (870) 575-8410
FAX: (870) 543-8440
E-mail: fontenette_e@vx4500.uapb.edu

Dr. Diogenes Herreno

Dept. of Pharmacology/Toxicology
University of Puerto Rico Medical School
PO Box 365067
San Juan, PR 00936-5067
TEL: (787) 758-2525 Ext 1005
FAX: (787) 282-0568
E-mail: dherreno@rcm.upr.edu

Dr. Henry Lewis, III

Acting President
Florida A&M University
201 Dyson Pharmacy Building
Tallahassee, FL 32307
TEL: (850) 599-3301
FAX: (850) 599-3347
E-mail: henry.lewisiii@fam.u.edu

Dr. Alfred Nyanda

Director, ToxMed Reference Laboratory
Meharry Medical College
Dept. of Pharmacology, School of Medicine
1005 D. B. Todd Boulevard
Nashville, TN 37208
TEL: (615) 327-6257
FAX: (615) 327-6632
E-mail: anyanda@mmc.edu

Dr. Douglas Ray, M.D., Pharm.D.

Director, Pharmacy Technology Programs
Drew University of Medicine & Science
1731 East 120th Street
Los Angeles, CA 90059
TEL: (323) 563-5851 or 357-3636
FAX: (323) 357-3601
E-mail: doray@cdrewu.edu

Dr. Robert Taylor

Chairman, Department of Pharmacology
College of Medicine
Howard University
520 W Street NW, Room 3408
Washington, DC 20059
TEL: (202) 806-6311
FAX: (202) 806-4453
E-mail: rtaylor@howard.edu

Dr. James Webster

Chairman, Department of Biomedical Sciences
School of Veterinary Medicine
Tuskegee University
Tuskegee, AL 36088
TEL: (334) 727-8469
FAX: (334) 727-8177
E-mail: websterj@tusk.edu

CONSULTANTS

Dr. Max Lum

Associate Director for Health Communication
National Institute for Occupational Safety/Health
HHH Building, Room 715H
200 Independence Avenue SW
Washington, DC 20201
TEL: (202) 401-3749
FAX: (202) 260-1898
E-mail: mrl1@cdc.gov

Dr. Melvin L. Spann

National Library of Medicine, Retired
11525 Lovejoy Street
Silver Spring, MD 20902
TEL: (301) 593-7364
FAX: (301) 480-3537 (at NLM)
E-mail: spannm@mail.nlm.nih.gov

LIBRARIANS

Ms. Beverly Allen

Director, Multi-Media Center
Morehouse School of Medicine
720 Westview Drive Southwest
Atlanta, GA 30310
TEL: (404) 752-1531
FAX: (404) 752-1049
E-mail: beverly@msm.edu

Ms. Gladys Smiley Bell

Assistant Director for Public Services
Harvey Library, Hampton University
130 E. Tyler Street
Hampton, VA 23668
TEL: (757) 727-5371
FAX: (757) 727-5952
E-mail: gladys.bell@hamptonu.edu

Ms. Cynthia Burke


School of Nursing Library
Hampton University
Hampton, VA 23668
TEL: (757) 727-5353
FAX: (757) 727-5423
E-mail: cynthia.burke@hamptonu.edu

Ms. Victoria Delgado

Conrado F. Asenjo Library
University of Puerto Rico Medical Sciences Campus
PO Box 365067
San Juan, Puerto Rico 00936-5067
TEL: (787) 751-8199 ext. 1376, 1200
FAX: (787) 282-6438
E-mail: vdelgado@rcm.upr.edu

Mr. Larry Ellis

Director, Louis Stokes Health Sciences Library
Howard University
501 W Street, NW
Washington, DC 20059
TEL: (202) 884-1723
FAX: (202) 806-4567
E-mail: lellis@howard.edu

 **Charles Hobbs, Systems/Serials Librarian**
Library/Drew Health Sciences Library
Charles R. Drew University of Medicine and Science
1731 E 120th St.
Los Angeles, CA 90059
TEL: (323) 563-4868
FAX: (323) 563-4861
E-mail: chhobbs@cdrewu.edu

Ms. Yvonne Hull

Pharmacy Specialist
Library Resource Center
Xavier University of Louisiana
1 Drexel Drive
New Orleans, LA 70125
TEL: (504) 483-7545 or 7305
FAX: (504) 485-7917
E-mail: yhull@xula.edu

Mr. Obidike Kamau

Director, Robert James Terry Library
Texas Southern University
3100 Cleburne Ave
Houston, TX 77004
TEL: (713) 313-7121
FAX: (713) 313-1080
E-mail: kamau_on@tsu.edu

Ms. Rosalind Lett

Director, Meharry Medical College Library
1005 D.B. Todd Blvd.
Nashville, TN 37208
TEL: (615) 327-6728
FAX: (615) 327-6448
E-mail: rlett@mmc.edu

Ms. Juanita Roberts

Director, Library Services
Hollis Burke-Frisell Library, Tuskegee University
Tuskegee, AL 36088
TEL: (334) 727-8894
FAX: (334) 727-9282
E-mail: jrobert@tusk.edu

Dr. Lauren Sapp

Director of University Libraries
Coleman Library, Florida A&M University
1500 South Martin Luther King Blvd., Suite 307
Tallahassee, FL 32307
TEL: (850) 599-3370
FAX: (850) 561-2293
E-mail: lauren.sapp@famou.edu

Ms. Elaine Yates

Watson Memorial Library
University of Arkansas at Pine Bluff
Pine Bluff, AR 71611
TEL: (870) 575-7048
FAX: (870) 575-8440
E-mail: yates_e@hotmail.com

