THE CURRENT GENERATION OF COMPUTER-SAVVY HEALTH-CARE PROVIDERS AND STUDENTS CAN NAVIGATE THEIR WAY THROUGH ELECTRONIC DATABASES with ease. That's why it's easy to forget how progressive HUBNET WAS WHEN IT WAS INTRODUCED AS A PILOT PROGRAM IN 1991.



Pioneering biomedical library consortium is still a treasure

Twenty-five years ago, the medical librarians at the University at Buffalo and its eight teaching hospitals joined forces to create the first biomedical library consortium of its kind. In formalizing an affiliation that had existed for decades between UB and the participating institutions, consortium members had two primary goals: to improve access to the libraries' collective resources and to expand the range of services provided to healthsciences faculty and students.

ANYONE'S STANDARDS, the Library Consortium of Health Institutions in Buffalo (LCHIB) achieved these objectives-and the some. Its most significant initiative to date has been the Hospitals and University at Buffalo Librar Resource Network. To its thousands of users, this everexpanding electronic database of top-notch journals, books and indexes is more commonly known by its acronym: HUBNET.

"HUBNET includes a lot of resources that are funded by the consortium, and that means that you can get rea premium information, and you can get it anyplace that has Internet access," says Jack Freer, MD '75, professor clinical medicine. "It's really valuable."

Today, of course, online clinical resources like HUBNET are ubiquitous. The current generation of computer-savvy health-care providers and students can navigate their way through electronic databases with ea That's why it's easy to forget how progressive HUBNET was when it was introduced as a pilot program in 1991

"Some of the LAN technologies and the e-mail tech nologies were just coming around," recalls John Loonsk MD '86, HUBNET's principal architect. "The idea of extending those to multiple hospital environments was a real challenge."

Even finding a location for the server was problema In its infancy, the "hub" of HUBNET was located in a former medical school lab appointed only with bread racks to support the hardware.



As HUBNET was being launched, Loonsk—th the medical school's director of computing—desig required medical school course in informatics, the of its kind in the country. In teaching the course, I also taught the first generation of HUBNET users "We had no permanent computer classrooms, roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help ther their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	
 required medical school course in informatics, the of its kind in the country. In teaching the course, I also taught the first generation of HUBNET users "We had no permanent computer classrooms, roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help there their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a rese. and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshed internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." The health-sciences library and many of the performance of the search and the searchand the search and the search and the search and the search a	-then
of its kind in the country. In teaching the course, I also taught the first generation of HUBNET users "We had no permanent computer classrooms, roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help ther their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshe internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	esigned a
 also taught the first generation of HUBNET users "We had no permanent computer classrooms, roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help there their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a rese. and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshe internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the prior to that the prior to prior the prior to the prior to prior to prior the prior to prior to	the first
"We had no permanent computer classrooms, roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help ther their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	e, Loonsk
roll these computers to a classroom," he says. "The computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help there their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	ers.
 computer would heat up and die on us. Here we a ing to teach everyone how valuable this will be and crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help there their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a rese. and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshop internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	ns, so we'd
 ing to teach everyone how valuable this will be an crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help there their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a rese. and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshop internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	Then the
 crashing on us." Nonetheless, students and clinicians alike emb the technology, recognizing how it could help then their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se- ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p 	e are try-
 Nonetheless, students and clinicians alike emb the technology, recognizing how it could help ther their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p 	and it's
 the technology, recognizing how it could help then their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a rest and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshot internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	
 their studies, teaching and practice. "Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p 	nbraced
"Just to get to Medline rather than having to g a shelf and open up <i>Index Medicus</i> was a big deal," Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	hem in
 a shelf and open up <i>Index Medicus</i> was a big deal,' Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se- ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p 	
Martin Mutka, director of LCHIB. "Having somet weekly updates to <i>Current Contents</i> was quite a re- and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se- ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	o go to
 weekly updates to <i>Current Contents</i> was quite a resise. and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshop internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	
 and, in and of itself, quite helpful." Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET workshow internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	0
Among its earliest users was Freer, who was fir duced to it when he attended a HUBNET worksho internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	revolution
 duced to it when he attended a HUBNET workshown internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. 	
 internal medicine residents. "Prior to that time, if wanted to search a journal, you had to go to a libr who had some inscrutable computer system for see ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the provide the set of the set	
 wanted to search a journal, you had to go to a libr who had some inscrutable computer system for se ing—this strange language that only they knew. B was neat because you could do it on your own." Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p 	-
 who had some inscrutable computer system for set ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the particular of the parti	•
ing—this strange language that only they knew. B was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	
was neat because you could do it on your own." tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	
tic. Indeed, HUBNET couldn't have been launched early as it did were it not for the consortium. "The health-sciences library and many of the p	
early as it did were it not for the consortium. "The health-sciences library and many of the p	
"The health-sciences library and many of the p	ned as
associated with it were really outstanding in recog	ognizing

that electronic resources were going to be critcal for health care," says Loonsk, now the director for Interoperability and Standards in the U.S. Department of Health and Human Services' Office of the National Coordinator for Health Information Technology.

"These were people who weren't necessarily comfortable with using information technology themselves in the beginning, but they saw what it could do for health care."

Because the consortium was one of the first groups to invest in electronic biomedical databases, it received favorable contracts from vendors eager to drum up business. These circumstances, in turn, enabled the consortium to increase HUBNET's offerings over the years.

Mutka, who tracks HUBNET use on a quarterly basis, says that's one of the reasons he has seen a steady increase in usage over the years. "The trend is definitely on the upswing. There's a 15 percent or more increase in usage every year, and that's probably because there's more to look at."

The consortium has also expanded its membership over the years. Today, it includes nearly 50 members, affiliate members, associate members and partners. These include hospitals and medical centers throughout the state date medical information and perform literature reviews as well as area colleges and businesses.

"There are probably only a handful of biomedical consortia that are characteristically similar to ours because electronic publishers can make more money negotiating individually with specific institutions," says Mutka. "So it was a good thing that everyone working on this project 25 years ago had the foresight to grasp the consortial idea. And the consortial idea was a function of the fact that there wasn't a single teaching hospital at UB."

C. K. Huang, the director of UB's health sciences library at the time, says that the consortium made the libraries more efficient because they were able to avoid duplications of internal subscriptions. What's more, it bolstered the libraries' purchasing capabilities. As a consortium they received annual dues from the participating hospitals and became eligible for financial support from regional and state library associations.

OR EXAMPLE, in 1984 they used a \$20,000 grant from the Western New York Library Resource Council to convert their card catalog into a database, the first step toward automation. They also received a grant reimbursing them for mailing articles to physicians, a common practice in the era before faxes and e-mail. "The idea was to get the institutions organiz-

ed so every health professional in the area has free and equal access to the information for their clinical and educational needs," Huang says. "We wanted to spread health science information to help patient care. That's what health sciences libraries ought to do."

And HUBNET has been a tremendous asset in that regard, according to some of its biggest usersmedical residents.

"HUBNET is the best way to easily access most up-torelevant to clinical practice," says Reem Mustafa, MD, chief resident for the preventive medicine residency program.

"It serves essentially as a mobile library where you can read full-text books, journals and at the same time search the Medline library from any location. The fact that the information available is multidisciplinary provides a handy tool to review related aspects of different specialties."

Adds Roseanne Berger, MD, the medical school's senior associate dean for graduate medical education: "In an academic environment, residents and faculty need ready access to current information at home and at work. It's essential for learning, teaching, research and patient care decisions based on the best available evidence. HUBNET makes this possible."





Student Top Honors

The following students won top honors at the Forum and have been invited to present their posters at the school's annual Spring Clinical Day and Reunion Weekend celebration on May 4-5, 2007.

First Place JEE BANG. CLASS OF 2009

"Endovascular Management of Giant Saccular Aneurysms: Clinical and **Radiographic Outcome in 15 Cases"**

Mentors:

Babak S. Jahromi, MD, PhD Elad I. Levv. MD L. Nelson Hopkins, MD

Second Place

"Is Aggressive Rehabilitation Possible **Following Distal Biceps Tendon Repair?**"

Mentors: Leslie J. Bisson. MD Jennifer Gurske de Perio. MD '05

Bookmarks



2007 Medical Student Research Forum

ALEXANDER WEBER. CLASS OF 2009

he Medical Student Research **L** Forum poster presentation took place on January 18, 2007, in the atrium of the Biomedical Education Building in the School of Medicine and Biomedical Sciences.

Twenty-three students representing all four classes participated, displaying the results of research projects they conducted at UB and other institutions. Each participant worked closely with a research mentor to complete his or her project, and a variety of funding agencies supported the students with stipends.

"The forum provides students the opportunity to showcase their research and communicate and interpret their results to other students, as well as to faculty," says Debra L. Stamm, assistant dean for student services in the Office of Medical Education. "We recognize the importance of research training in providing the best medical care to patients and in providing future physicians with a well-integrated educational experience."

Third Place JENNIFER LANG, CLASS OF 2009

"Statin Treatment of Adult Human Oligodendrocyte Progenitors Induces Precocious PPAR-Mediated Differentiation"

Mentors (from the University of Rochester Medical Center): Fraser J. Sim. PhD. Tracv A. Crompton. BS. Webster H. Pilcher, MD, Steven A. Goldman, MD, PhD. Support by NIH R01NS39559, and the National MS Society

Health Fair for Medical students reach out to underserved

B MEDICAL STUDENTS hosted a health fair for the general public on March 18 in an effort to foster contact with local residents, as well as to increase awareness about a wide range of health issues of concern to the Buffalo community.

The health fair was sponsored by the UB chapter of the Student National Medical Association (SNMA), and was held in the Buffalo Museum of Science.

The fair is an annual tradition of the SNMA at UB-the local chapter of the nation's oldest and largest independent, studentrun organization focused on medical students in under-

represented minorities; however, organizers point out that this was the first year the fair also was designated as the regional health fair for SNMA Region IX, which includes chapters at medical schools throughout New York State and New Jersey.

"Every year every region has a health fair," says Tamara Thomas, copresident of the SNMA chapter at UB. "This year, UB was honored to be the place where the regional health fair was held.

"I think it's critical for students who are developing professionally as doctors or dentists or nurses to understand the importance of serving the community in which they live," adds Thomas. "This is a perfect opportunity for them to be involved and really give back to the community."

Surbhi Bansal, a second-year student in charge of organizing this year's event, says regional sponsorship helps the health fair achieve its mission because additional assistance means a larger event can be held than in previous years.

"Our goal," she says, "is to let the students be more out there in the community, get to know the community, and also let the community know about the involvement of students."

Students staffed information booths on a wide range of topics, including those that

"I think it's critical for students who are developing professionally as doctors or dentists or nurses to understand the importance of serving the community in which they live."

—TAMARA THOMAS, CLASS OF 2009



dominate the health-care landscape in Buffalo, such as cardiovascular disease, diabetes, hypertension, weight control and obesity. Free blood pressure screenings were available and attendees had an opportunity to meet representatives from Buffalo Free Clinic Services and local medical insurance companies.

By Kevin Fryling

Regular contributors to this, as well as past SNMAsponsored health fairs, include the School of Dental Medicine, the Department of Exercise and Nutrition Sciences in the School of Public Health and Health Professions, Kaleida Health and the Lighthouse Free Medical Clinic, a program run by UB medical

> students in one of the poorest neighborhoods in Buffalo.

Lynn Yen, a second-year medical student who performed blood pressure screenings and operated a booth at the 2006 health fair, says the event provides a casual environment in which people feel comfortable enough to open up and ask questions about their personal health situations.

"It is a good setting to talk about all sorts of things," she says. "It's a little bit of a friendlier environment-not an office where I'm wearing a white coat. I'm just another person. They can ask me questions that they might not want to ask their doctor, for whatever reason."

She points out that last year's health fair was held at a neighborhood church on the East Side of Buffalo in an effort to target populations that had limited access to health-care information.

This year's location at a prominent site, notes Bansal, aimed to attract greater numbers of people from throughout the entire Buffalo community.

"We wanted to make it accessible to the general public," she says. "The first thing that came to mind was the Buffalo Museum of Science."