Bibliographic Control

- **Collection Development**
- **Cataloging**
- **Serials Control**

BIBLIOGRAPHIC CONTROL

Sheryl R. Stevens, Head of Bibliographic Control
Anne Bushel, Serials Assistant
Linda Knotts, Acquisitions Assistant
Heidi Steyer, Cataloging Assistant

Significant change and progress characterized the Department of Bibliographic Control's Fiscal Year 1993/94. At the end of June 1994, the Department's staff, organization, work flow, and orientation were markedly different than a year earlier, and implementation of several of the available automated technical processing modules was well underway.

Staff Changes & Reorganization

In July 1993, Department Head John Lucas accepted a position at the University of Mississippi Medical Center and left the Mulford Library after 17 years of service. The Department's name was then changed from Technical Services to Bibliographic Control to reflect the broader responsibilities that the Library's automated system now placed upon the Department Head. In September 1993, Sheryl Stevens (previously at Henry Ford Hospital Library in Detroit) assumed the Department Head position. Her primary responsibility was defined as "quality control of the bibliographic record in the Library's on-line environment," and initially her major duties included supervision of all book and journal processing activities and associated staff. In January 1994, she assumed responsibility for coordinating all acquisitions and collection development functions, thus finally consolidating the entire spectrum of collection and catalog maintenance tasks under one department head.

The composition of the Department's support staff also underwent major change in FY 1993/94. After Cataloging Assistant Barbara Huntley retired in July 1993, the position was upgraded and the job description rewritten to reflect the new skills and duties mandated by automation. In January 1994, Heidi Steyer was hired as the new Cataloging Assistant. In February 1994, long-time Acquisitions Supervisor Ajit Chakraborty officially retired. His position and duties were re-evaluated, and it was determined that his replacement would be assigned a lower job classification on par with the Cataloging Assistant. The new Acquisitions Assistant, Linda Knotts, was hired in May 1994. Anne Bushel continued as Serials Assistant in FY 1993/94, and in April 1994 a part-time student, Brian Wixey, was hired to assist with the backlog of bindery work.

Besides assembling and reorganizing staff, a tremendous amount of effort was invested over the course of the year in rearranging the Department's physical workspace and "cleaning house." By the end of June 1994, vast improvements had been made in both the appearance and functionality of the Department's third floor workspace. In addition, the basement bindery room was relocated, and while smaller, turned out to be better designed and more conducive to efficient work.

Collection Development & Maintenance

The Library purchased 551 new monographs in FY 1993/94, 76% more than in FY 1992/93. The total amount spent -- approximately $51,500 -- was 48% more than the previous year. Following are percentage breakdowns of FY 1993/94 acquisitions by general subject:

	No. of Books	% of Total
Clinical Sciences	283	51.4%
Basic Sciences	106	19.2%
Nursing	95	17.2%
Allied Health	45	8.2%
All Other	22	4.0%
TOTALS	**551**	**100.0%**

While more money was spent on books in FY 1993/94 than in FY 1992/93, the amount available was still not adequate to repair the damage that major budget cuts inflicted upon the Library's book collection in the late 1980's and early 1990's. (An analysis of book records in the Library's catalog in January 1994 showed that only 4% were for titles published in the last 5 years.) However, a special attempt was made to enhance the relevance and usefulness of the clinical portion of the collection by purchasing as many items as possible on the "Brandon List," a key collection development guide of recommended core titles in the clinical sciences.

In addition, new emphasis was placed on purchasing several series of popular practical books of particular interest to students, e.g., Williams & Wilkins' **House Officers Series**, Mosby's **Medical Secrets Series**, the **National Medical Series for Independent Study**.

Special attention was also devoted to evaluating and enhancing the Library's Reserve Collection, which traditionally had not been regularly reviewed by a librarian and had essentially served as a course reserve repository. In February 1994, the Head of Bibliographic Control drafted a Permanent Reserve Collection Policy and assumed responsibility for coordinating maintenance of the collection, which eventually will include current core textbooks from all the major health sciences disciplines as well as course reserve items and audiovisuals. Work flow issues were also reviewed with Circulation and revised to ensure effective service for faculty.

All book orders continued to be processed manually in FY 1993/94, but preparations were made for implementing the Innovative Interfaces computerized acquisitions module in FY 1994/95. Besides automating order preparation and budget tracking, the system will also permit the Library to generate a variety of acquisitions reports and statistics on demand. Onsite training in use of the module was completed in late 1993. In addition, the Head of Bibliographic Control met with representatives from MCO's purchasing and accounting departments in March 1994 to discuss anticipated changes in the order processing work flow and methods for streamlining what paperwork will remain.

Crowded book stacks and concern about the amount of outdated and out-of-scope material in the book collection prompted work on a major weeding project to begin in April 1994. When the project is completed, the Head of Bibliographic Control and Library Director will have reviewed the entire book collection and discarded all items deemed out-of-date or inappropriate. Simultaneously, as the weeding progressed, cataloging and circulation staff members began the process of integrating the "oversize" and regular-size book collections. Previous non-standard cataloging practices and an apparent reluctance in past years to adjust the size of the book shelves had resulted in an unnecessarily large (i.e., voluminous) "oversize" collection. Interfiling the two collections will serve to substantially reduce confusion among Library users.

Cataloging

Automation mandated complete transformation of the book cataloging work flow in FY 1993/94. The card catalog was officially closed in August 1993 shortly after activation of OSLER, the Library's computerized catalog. Subsequent additions to OSLER were directly downloaded from OCLC, a national on-line database of bibliographic and holdings records. Downloaded records were immediately accessible for editing according to the Library's specifications and standards. Implementation of the computerized cataloging module also reduced cataloging turnover time by: 1) eliminating the labor-intensive task of filing (and unfiling) catalog cards; and 2) simplifying the other traditionally tedious cataloging task of producing call number labels, which could now be printed directly from the OSLER record (previously each was manually typed).

Increased familiarity with and use of the OSLER database brought increased dissatisfaction on the part of the cataloging staff with the structure and content of records for previously cataloged books. Thus, over the course of the year, a significant amount of time was invested in editing or replacing older OSLER records and re-cataloging and re labeling previously cataloged books to comply with standard, accepted rules of cataloging. A great deal of "clean-up" work remains to be completed, but in the end will result in a more accessible collection and better quality database.

In addition to streamlining the book cataloging process, the Innovative cataloging module also permitted development of an efficient and effective procedure for "cataloging" non-book course reserve materials to allow for computerized check-out. Beginning in March 1994, all non-book course reserve items (e.g., article reprints, copies of previous year's exams, etc.) were routed to Bibliographic Control for creation of temporary minimum-level records that were deleted upon completion of the term.

After re-evaluating the Library's OCLC access points and users, in March 1994 the Head of Bibliographic Control arranged to switch Interlibrary Loan Services from dedicated to dial access, thus increasing staff access but keeping costs the same (or reducing them somewhat). Usage patterns in Bibliographic Control will be analyzed over the course of the next year to if determine a similar transition should be made.

Serials

The Library spent approximately $452,000 on 1,278 journal subscriptions in FY 1993/94. While budget cuts in FY 1992/93 necessitated canceling 414 journal titles at the beginning of calendar year 1993, all current subscriptions were renewed at the beginning of calendar year 1994. In addition, new subscriptions totaling about $7,800 were added to the collection, including three CD-ROM titles. Following is a list of new titles added:

CD-ROM
Drug Information Source (full-text)
Healthplan
Nursing & Allied Health

Print
American Journal of Health Promotion
Doody's Health Science Book Review Journal
Journal of Endotoxin Research
Journal of the American Medical Informatics Association
Nurse Practitioner Forum
Oncogene
Shock
Stereotactic & Functional Neurosurgery (reinstated)

As the fiscal year closed, serious consideration was being given to transferring the Library's journal account from The Faxon Company to EBSCO Subscription Services at the end of calendar year 1994, mainly due to concern about Faxon's ongoing financial instability. In addition, it was decided to transfer approximately 100 standing order titles from Faxon to the Library's book vendor to take advantage of available discounts.

Serials processing and control was as challenging as ever in FY 1993/94. Implementation of the Innovative serials module continued -- as of February 1994 all current issues were being checked in on OSLER -- but was complicated by a number of factors. First of all, it was finally concluded after a variety of valiant attempts that the Library was not going to be able to transfer any data from records in the stand-alone serials control system previously utilized before the Innovative module became available. This meant that all holdings data for the nearly 5,000 serial records in OSLER would have to be keyed in by hand. Accomplishing this task was in turn complicated by the discovery that the holdings data in the old system's records and in the Library's OCLC Union List records were in many cases inaccurate and/or incomplete. It was thus decided that conducting an inventory of the journal collection was necessary before any OSLER holdings data could be entered. Work on currently received titles commenced in April 1994.

In addition to discovering the poor condition of the Library's serials holdings records, increased familiarity with and use of the bibliographic serial records in OSLER revealed that overall they were also not up to acceptable standards. Some of the records were redownloaded over the course of the year; eventually, most will need to be replaced with more complete and up-to-date versions. Rather than redownloading or editing each individual record, it was decided to first explore other options, such as obtaining updated bibliographic records from Library's serials vendor or a retrospective cataloging vendor.

The bindery backlog also complicated serials work in FY 1993/94 and slowed down implementation of the serials module. Budget cuts had minimized bindery work during the past few fiscal years with disastrous results to the condition of the journal stacks; thus, in FY 1993/95 additional funds were allocated for binding and a serious attempt was made by the serials assistant and a part-time student in the last half of the fiscal year to at least make a dent in the backlog, which for most titles consisted of 3-4 years worth of unbound issues. By the end of June 1994, some "catch-up" work was accomplished. However, because of the additional effort devoted to bindery work, less of the serials assistant's time was available for other projects, such as taking inventory, keying in holdings data on OSLER journal records, and updating OCLC Union List records. In addition, until all 1993 issues have been bound, the serials module bindery processing function cannot be utilized since only 1994 issues have been consistently checked in on the system.

As of June 1994 the serials claiming function was operational. Claims for unreceived current journal issues are now being generated from the system on a monthly basis and routed to the Library's journal vendor.

Goals for FY 1994/95

- Complete implementation of the Innovative acquisitions module

- Draft a collection development policy

- Continue to enhance the collection's relevance and usefulness through appropriate additions and subtractions

- Complete weeding and reorganization of book collection

- Continue to monitor and improve quality of the cataloging records in OSLER

- Complete at least half of the journal inventory project and input holdings data into OSLER for at least half of the titles in the Library's collection

- Begin compilation of a departmental policy/procedure manual

BIBLIOGRAPHIC CONTROL STATISTICS

Monographs	FY 93/94	FY 92/93	% Change
Purchased	551	313	+76.0%
Donated	85	131	-35.1%
Withdrawn	1207	2133	-27.3%
Recataloged	981	*	*
Total Monographs Owned	34721	35292	-1.6%

| Journals & Indexes			
Current Subscriptions	1278	1267	+ 0.9%
Subscriptions Added	11	36	-227.3%
Subscriptions Canceled	0	414	--
CD-ROM Titles	3	0	--
Issues Checked In	11672	13876	- 15.9%
Issues Claimed	223	*	*
Bibliographic Records Edited	294	*	*
Union List Updates	63	*	*
Volumes Bound	1251	610	+105.1%
Total Bound Volumes Owned (est.)	77250	76000	+1.7%

*Figure not available

COLLECTION MAINTENANCE COSTS

	FY 93/94 Total Cost	FY 92/93 Total Cost	FY 93/94 Average Cost	FY 92/93 Average Cost
Monographs**	$51,500	$26,721	$93.46	$85.37
Journal Subscriptions	$452,000	$426,252	$353.68	$338.83
Binding	$8,000	$5,173	$6.39	$8.48

**Does not include cataloging costs

Monographs Purchased by Subject FY 1993/94

Nursing
17%

Basic Sciences
19%

Allied Health
8%

All Other
4%

Clinical Sciences
52%
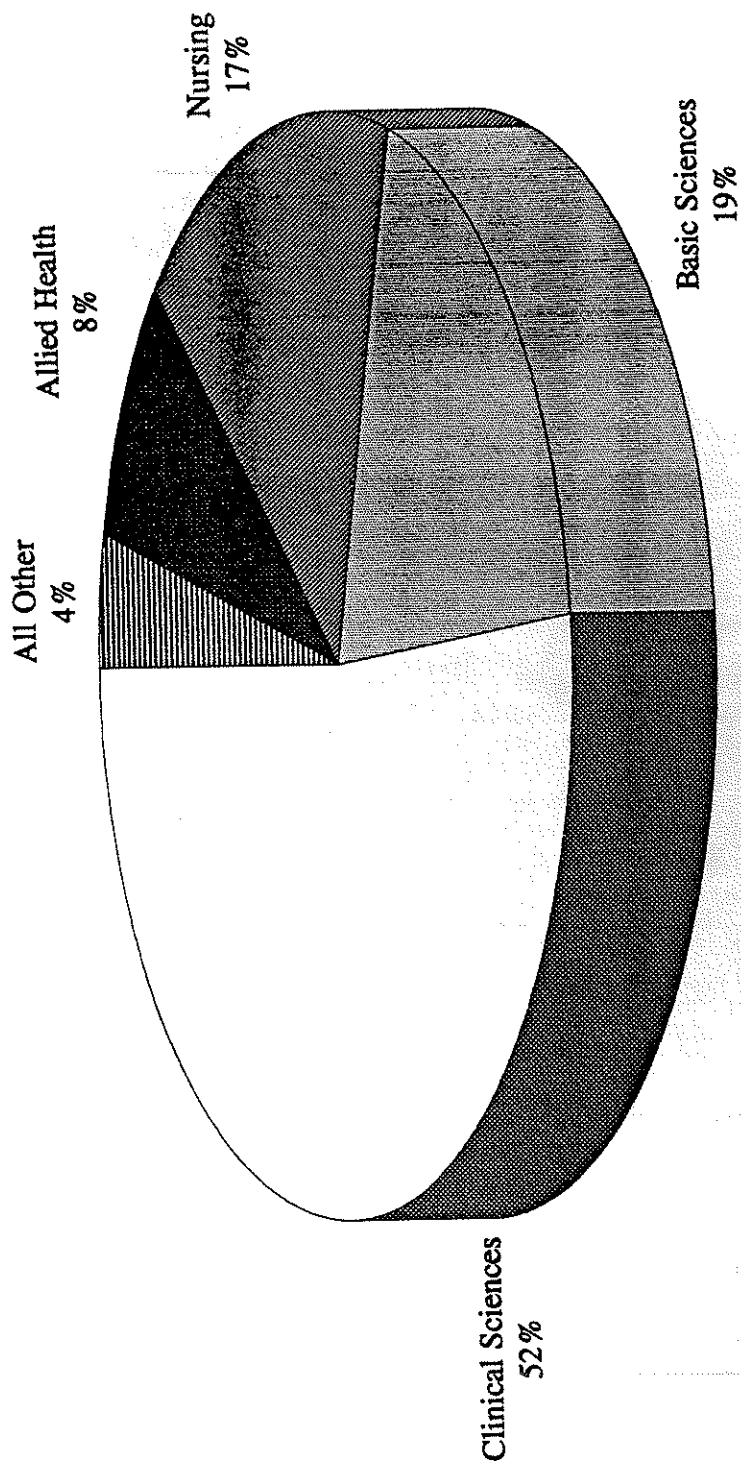
Total Purchased: 551

FY 1993 - 1994
INTERLIBRARY LOAN SERVICES

REQUESTS	FILLED	UNFILLED	REFERRED	TOTAL RECEIVED	BORROWED	GRAND TOTAL
PHOTOCOPY STATISTICS						
OhioLINK	3,770	1,323	7	5,110	1,865	6,975
OTHER OHIO ACAD./PUBL.LIBRARIES	277	259	1	545	8	545
OTHER OHIO HOSPITAL LIBRARIES	2,158	74	110	2,846	4	2,856
REGION 3 LIBRARIES	2,556	1,039	8	3,603	1,356	4,959
NLM	0	0	0	0	233	233
UMI	0	0	0	0	88	88
OTHER U.S. LIBRARIES	229	310	0	0	45	584
INTERNATIONAL LIBRARIES	7	17	0	24	0	24
INDEPENDENT PATRONS	440	227	16	683	34	717
subtotal	9,437	3,749	152	13,338	3,633	16,971
BOOK STATISTICS						
OHIOLINK	108	16	0	134	281	405
OTHER OHIO ACADEMIC LIBRARIES	20	5	0	25	17	42
OTHER OHIO HOSPITAL LIBRARIES	76	207	0	283	1	284
REGION 3 LIBRARIES	22	6	0	28	52	80
NLM	0	0	0	0	0	0
OTHER U.S. LIBRARIES	9	3	0	22	32	54
INTERNATIONAL LIBRARIES	1	1	0	1	0	1
INDEPENDENT PATRONS/CORP.	21	3	0	24	1	25
subtotal	267	240	0	507	384	891
AUDIO VISUAL STATISTICS						
OHIOLINK	0	2	0	2	3	5
OTHER OHIO ACADEMIC LIBRARIES	0	0	0	0	0	0
OTHER OHIO HOSPITAL LIBRARIES	0	17	0	17	2	19
REGION 3	0	0	0	0	0	0
NLM	0	0	0	0	0	0
OTHER U.S. LIBRARIES	0	0	0	0	0	0
INTERNATIONAL LIBRARIES	0	0	0	0	0	0
INDEPENDENT PATRON/CORP	0	0	0	0	0	0
subtotal	0	19	0	19	5	24
TOTAL/GRAND TOTAL	9,704	4,008	152	13,864	4,022	17,886

FY 1993/94

	FILLED	BORROWED
OhioLink Libraries	3,878	2,149
Ohio Acad./Pub. Libraries	297	25
Ohio Hospital Libraries	2,234	7
Region 3	2,578	1,408
U.S. Libraries	248	77
International Libraries	8	0
Independent Patrons/Corp.	461	0
NLM	0	33
UMI	0	88
TGA	0	35
TOTAL	9,704	3,822
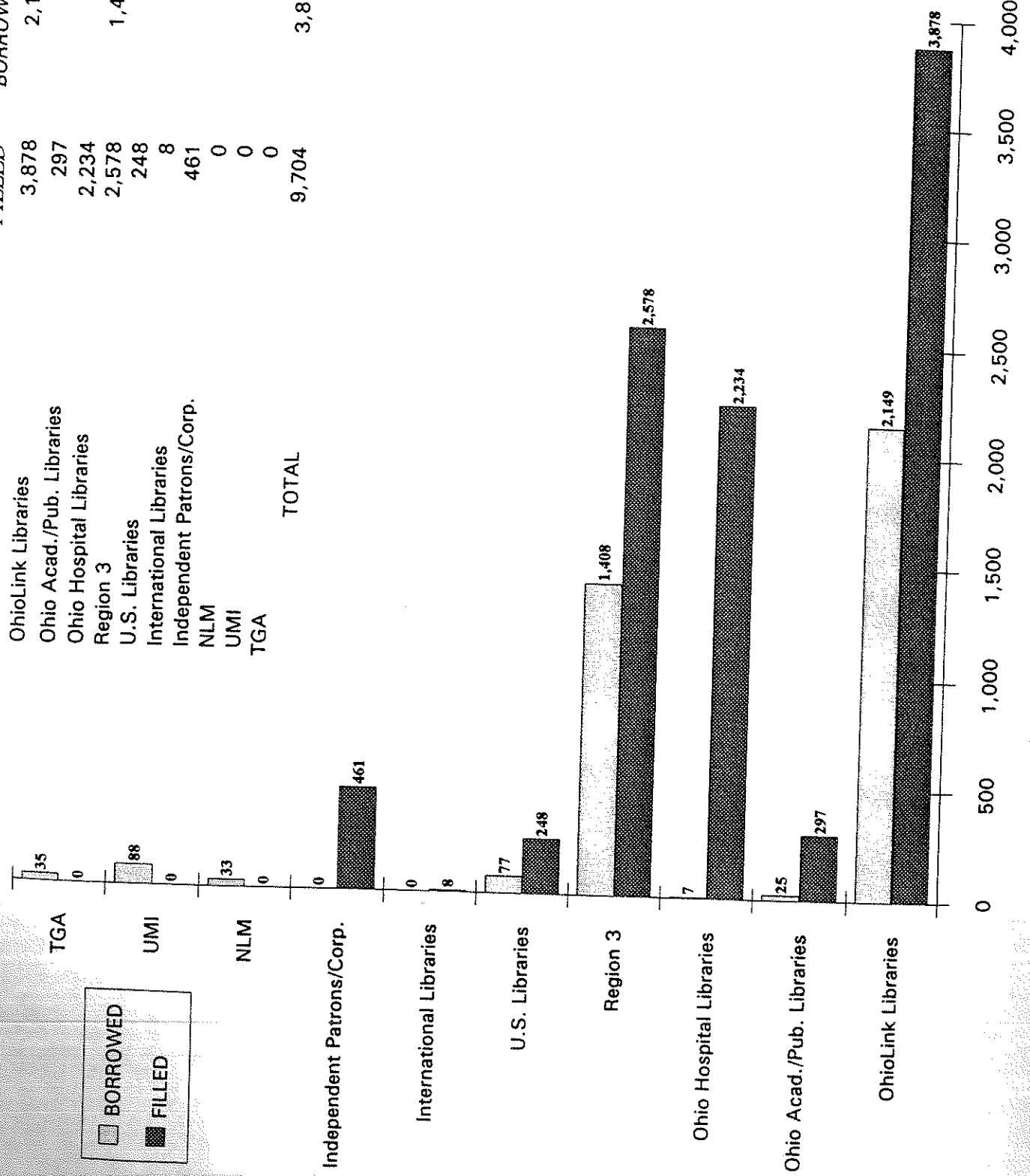
Computer Services

Computer Services

James F. Garrett, Computer Services Librarian

Mulford Library continued to show growth in its electronic resources over the past year. OhioLINK remains the single most important on-line tool for staff and patrons, but the library is beginning to offer some CD-ROM databases independent of the statewide venture. The single largest obstacle the library has dealt with is campus network connectivity, and several key projects have been compromised as a result.

Activities

Fiscal Year 1993/94 marked the introduction of OSLER, Mulford Library's on-line catalog. Because of the extensive training and preparation that had taken place the previous year, the transition went smoothly and the changes were well received.

Equipment and furniture for patron use had been targeted for high visibility areas at first. The central area for conducting searches is the newly outfitted On-line Resources room near the reference desk on the fourth floor. This room accommodates standing and sitting patrons and has two wheelchair accessible stations. Patrons can choose from DEC terminals for quick searches of the on-line catalog or desktop microcomputers for more extensive searches of library resources. Because the room is isolated from the main library study areas, noise is not a factor and printers are attached to all desktop computers.

Patrons on the fifth floor can use two DEC terminals located in the card catalog area. These terminals provide access to the on-line catalog as well as all OhioLINK resources. However, because of the proximity to study areas, printers are not available.

Additional strategic sites have been selected for terminals and will be added as equipment becomes available. In particular, the library hopes to put patron terminals on the sixth-floor mezzanine; near the current journals; in the stacks near the atrium; in the reference stacks; and in the historical reading room. Other locations will be equipped as the need arises.

Accessing the catalog from outside library walls has proved more difficult. Information Systems has put some effort into determining the optimum method of using the resources on campus. At present, all IBM-compatible systems with Windows can connect to OSLER through Winserve, the IS-developed network applications menu. PCs without Windows and all Macintosh users still must connect by means of a terminal emulation program such as Sethost or MacTerminal.

Off-campus access is more problematic. Individuals with Internet accounts anywhere in the world can connect to OSLER without difficulty. But security issues forced MCO to make the library server inaccessible to users who connect via the phone lines. While this step was necessary to comply with software licensing agreements, the decision prohibits our own faculty, staff and students from using library resources from their home computers. Information Systems is still evaluating the problem to determine the best method for allowing access by modem.

Ironically, this limitation on access to the library system comes at a time when interest is dramatically increasing. In the spring of 1994, MCO was selected to be the first library to offer a selection of OhioLINK health sciences databases. Included in the list were Medline and CINAHL, two of the most heavily used indexes in any medical library. Because the vendor is still refining the software, access was first restricted to a handful of MCO researchers to allow library staff to identify potential problems. The databases are now available to all OhioLINK patrons and have received fairly high marks, despite some nagging software problems. The database vendor continues to work closely with OhioLINK Central Site and hopes to have most of the bugs fixed before the fall semester.

The library has also taken steps to provide electronic resources independent of the statewide consortium, though with limited success. In September 1993 the library purchased a CD-ROM server from Virtual Microsystems. The intent was to complement the OhioLINK resources with CD-ROM databases that were specific to the needs of MCO patrons. To ensure compatibility with the existing network, the library enlisted the advice of Information Systems in the selection and evaluation of equipment.

Despite these precautions, the CD-ROM server is operating at a much diminished capacity. After several attempts, the server is still not integrated into the campus network and the data is largely inaccessible to campus users; in fact, only a half-dozen PCs in the library's On-line Resources room are able to connect to the server. IS has now put the project on hold for at least six months while they evaluate new network operating systems.

Other Projects

- **UNIX Server and World Wide Web** -- Information Systems recently purchased a UNIX server that has the potential to allow the library to expand in several new directions. While the computer is planned for several campus-wide projects, the development of a World Wide Web server is of particular interest to Mulford Library because of the inroads it offers to the Internet and because of its strong potential in disseminating local resources. The library has already begun designing its component of the Web server and has at least one graphics database planned.

- **Medical Electives Database** -- MCO will be the first OhioLINK library to offer a non-bibliographic database at the statewide level. Computer Services is working with Dr. George Nowacek, Department of Medical Education, in preparing the database structure. Once completed, the database will detail the medical electives available from all state-supported higher academic institutions and will be accessible from any OhioLINK terminal.

- **Inventory Module** -- the library has purchased the Innovative Interfaces inventory module and portable barcode scanner. Together, these additions will help monitor how library materials are being used, particularly non-circulating items.

- **Acquisitions Training** -- the library completed training for the Acquisitions module for the on-line system in October 1993. Training was attended by Anne Bushel (Serials Control), Ajit Chakraborty (Acquisitions, now retired), Jim Garrett (Computer Services) and Sheryl Stevens (Head, Bibliographic Control). The module will be implemented early in fiscal year 1994/95.

- Apple Equipment -- the library has expanded the computer platforms it offers its patrons to include Apple equipment. At present, a Centris 650 desktop computer with external CD-ROM drive and StyleWriter inkjet printer is available in the Universal Workstation room. In addition, a Macintosh PowerPC is slated to be added to the desktop PCs in the On-line Resources room. Other Apple products will be made available as warranted.

- Ariel -- the library brought up the Ariel computerized document delivery system as part of a statewide test sponsored by the State Library of Ohio. The equipment and software were difficult to configure and required several visits by Computer Services and Information Systems technicians. Once running, the system appears to meet expectations but is rarely used because of the labor intensive procedures.

Equipment/Software Purchased

Less computer software and equipment were purchased this fiscal year because of the extensive additions from the previous year. The emphasis in 1993/94 was in finding the gaps (particularly with printers) and in expanding the services we can offer our patrons.

ITEM	QTY	UNIT PRICE	EXTENDED PRICE
Virtual CD-ROM Server	1	19,990.00	$19,990.00
Inventory Control Module	1	9,500.00	$9,500.00
Portable Barcode Reader	1	3,200.00	$3,200.00
Macintosh PowerPC	1	2,849.30	$2,849.30
Gateway Desktop Microcomputers	5	1,515.00	$7,575.00
Cannon Bubble Jet Printers	2	312.24	$ 624.48
DEC Serial/Parallel Dot-matrix Printer	3	599.00	$1,797.00
Apple StyleWriter	1	270.74	$ 270.74
Epson Dot-matrix Printers	2	279.00	$ 558.00
Panasonic Dot-matrix Printer	4	259.00	$1,036.00
Apple External CD-ROM Drive	1	365.00	$ 365.00
Memory Upgrade	1	169.00	$ 169.00
Hayes Internal Modem	1	59.10	$ 59.10
Barcode Reader	1	137.00	$ 137.00
Procomm Plus for Windows	5	97.00	$ 485.00
IBM Anti-virus	5	29.95	$ 149.75
TOTAL			$48,765.37

Computer Learning Resource Center

COMPUTER LEARNING RESOURCE CENTER

Jerome A. Levin, Ph.D., Director
Jeffrey J. Jablonski, Ph.D., Assistant Director
Anne Trinchero, Computer Clerk

Introduction

This is a report for the seventh year that the Computer Learning Resource Center (CLRC) has been in operation. This was the first year that we were operating on an MCO budget rather than a State Academic Challenge Grant. There were several significant changes in the organization and operation of the CLRC during this year.

During this year, the CLRC staff met with the Mulford Library staff on several occasions to plan the integration of the CLRC into the Library. This integration and the subsequent budget merger was accomplished successfully in March 1994 and is working well for the benefit of both the CLRC and the Library.

Formal Educational Programs in the CLRC

Most of the courses taught by the CLRC include three components: 1) a classroom demonstration of the software, 2) self-instructional exercises which the students complete in the CLRC to prepare for testing and 3) proficiency tests which the students must pass to demonstrate that they have a basic competency with the software. These tests are actual assignments to do something productive with the software, e.g., edit a word processing document.

In previous years, the students were permitted to take these tests as many times as necessary, as long as they pass the test by the deadline for that course. This resulted in a significant number of students taking the tests without doing the practice exercises first or taking a test just to see what was required of them resulting in a significant waste of CLRC staff time. This year for the first time, the students were only permitted to take a test up to three times.

- *Computer Applications in Medicine - First Year Medical Students*

    This was the sixth medical student class that was required to pass a proficiency test in 1) word processing, 2) searching the Medline database and 3) either illustration graphics or a spreadsheet with its graphics capabilities. Students participating in the Prematriculation program are able to complete this requirement during the summer. However, most of the students take these tests during Winter quarter because that is when their deadlines occur. For this year's entering class of medical students, the CLRC staff administered 521 proficiency tests to 149 students over the period of time from July, 1993 until present. There still a few tests to be administered to students who are remediating this course over the summer.

- *Introduction to Medical Decision Making - Second Year Medical Students*

  The students receive 2.5 points toward their final course grade for each of the two proficiency tests that they pass by the course deadline. The two programs which the students learn to use are QMR, a diagnostic decision support program and Statview, a statistical software program. These tests are all taken during the Fall quarter. For last year's class, the CLRC staff administered a total of **223** proficiency tests to 155 students for this course.

- *Computers in Medicine - Fourth Year Medical Students*

  This course is a two to four week elective clerkship for fourth year medical students. This course was taken by two students during 1993-94. The students create their own specific learning objectives when they begin the course and they spend full-time working in the CLRC to learn to use computer applications for specific healthcare-related purposes.

- *Medical Informatics - Fourth Year Medical Students*

  This is a four week elective for fourth year medical students who have considerable experience in computer programming or application development. The students design their own project and work on it at MCO or at an off-campus site with MCO approval. This past year, one student completed this elective in the CLRC.

- *Computer Applications in Biomedical Research - Doctoral Students*

  During the summer of 1993, we had the largest enrollment we have ever had for this course. There were 37 students enrolled which is 150% of the enrollment in previous years. Over the 10 weeks of this course, the students work with different applications and their use in support of biomedical research and they view the ways that different faculty use special computer applications in their research. For this course this year, the CLRC staff administered **219** proficiency tests to the 37 students. In addition, the students are required to use what they have learned to prepare a poster presentation on a previously published research paper.

- *Physical Therapy Students*

  During their Junior year, the physical therapy students are required to pass a proficiency test on word processing and another test on searching the Medline database. During this academic year, **100** proficiency tests were administered to 42 students. The CLRC staff has agreed to develop an elective class which will cover additional types of software. This may be a joint class of both Physical Therapy students and Nursing students.

- *Nursing Students*

    In the spring quarter, Rosemary Kahle (School of Nursing) and Dr. Levin offer a ten week elective for senior nursing students entitled "Computer Trends in Nursing and Health Care." The students are required to learn to use several different types of programs on both Macintosh and IBM-compatible computers. They also visit St. Luke's Hospital for a demonstration of their bedside computer system for nursing data. The students prepare a poster presentation on a published paper using the computer skills they had learned and present these posters for the Nursing faculty.

    In addition, the Junior Nursing students are required to pass a proficiency test on word processing during the Fall quarter as part of a required course "Nursing Technology." The CLRC staff administers these proficiency tests and Rosemary Kahle is responsible for grading them.

- *Statistics Courses for Graduate School*

    The CLRC staff provides support for faculty who are teaching statistics courses using software in the CLRC. This involves considerable technical support for the faculty who are teaching the course to make sure that everything is set up properly for the classes and providing classroom demonstrations of the software. In addition, our staff must provide user support for the students taking the classes since the students come to the CLRC to work on the exercises whenever it is convenient for them and the faculty teaching the classes can not be present at all times. Cheryl Bourginon (School of Nursing) teaches an introductory statistics class for about 40 students in the fall quarter and an advanced class for about 15 students in the spring.

Summary

In summary, the CLRC staff teaches a series of courses and required exercises within other courses which provide basic training in the use of computer applications for all MCO students. In the past year, the CLRC staff has provided this training for 383 students. For these four courses, we administered 1063 proficiency tests during the past year.

The following table summarizes these course offerings:

Student Class	No. of Applic.[a]	No. of Students[b]	No. of Tests[c]	Fall Qtr	Win. Qtr	Spr. Qtr	Sum. Qtr
First Year Med.	3	149	521	✓	✓		✓
Second Year Med.	2	155	223	✓			
Fourth Year Med.	variable	3		✓	✓	✓	✓
Ph.D. students	6 +	37	219				✓
P.T. Students	2	42	100	✓			
BSN Students	1	150		✓			
BSN elective	6 +	15				✓	
Intro. Statistics[d]	1	40		✓			
Adv. Statistics[d]	1	15				✓	

[a] The number of different types of computer programs that the students are required to learn to use.

[b] The number of students participating in the class during 1993-94.

[c] The total number of proficiency tests administered during 1993-94.

[d] These courses are taught by Cheryl Bourginon (School of Nursing) and supported by the CLRC staff.

This represents a tremendous teaching load and substantial contribution to the academic community at MCO and it is all accomplished (along with a lot of other functions described below) by four full-time people. Providing support for all of these classes is the most important activity that we do in the CLRC and takes up the greatest proportion of our time.

Other Activities in the CLRC

- *Conversion to OhioLINK Medline*

    Since it's inception, the CLRC has provided MCO faculty and students with local access to the Medline database. For the last three years, this has been a networked version of the complete Medline database so that many faculty could access this valuable resource from their offices and labs. This year, the CLRC helped in the conversion of our campus to the Medline database on OhioLINK. This represents a significant enhancement of service at a reduced cost to MCO. The CLRC staff will continue to support the use of this resource by our faculty and students.

- *Software/Hardware Updates*

    During the past year the CLRC staff made some upgrades and enhancements to services in the CLRC. These changes included the addition of some new Macintosh and IBM-compatible computers, a new high-capacity printer for both types of computers, a new, faster film printer and new projection equipment. At the suggestion of several faculty, we have purchased a few notebook computers (both Macintosh and IBM-compatible) for faculty to borrow.

- *Exam Grading Support*

    The CLRC continues to provide faculty and staff with access to the hardware, software and scanning forms used for grading all multiple choice examinations generated on campus. This year we upgraded the software for this service and Dr. Levin conducted a training session for the faculty and staff who will be using this software. This training session was attended by 15 people.

- *Support for Users in the CLRC*

    One of the most important functions that the CLRC staff provides is the regular one-on-one support/assistance for users who come to the CLRC. Many of these users have never used a computer before and they may have some fairly sophisticated needs. We also have some special equipment such as a color printer, a film printer and a graphics scanner and most of our patrons require considerable assistance to learn to use these properly.

    There are some special needs or certain faculty and staff that have taken a fair amount of our time for support. For example for the last four years, Dr. Levin has provided support to the Department of Nursing Resources for developing and maintaining a database of nursing staff in MCH and records of the trainings that they are required to attend on a regular basis. Dr. Jablonski has helped Jim Markland in preparing tests and teaching materials for the BLS and ACLS trainings and has helped many faculty and students with statistical consultation services.

- *Maintaining the Hardware and Software in the CLRC*

  Some of our time is spent repairing equipment. Many of our computers are seven years old and they are showing the effects of heavy usage. Budget constraints will not allow us to replace this equipment nor send it out for repair until we are sure that we can not fix it ourselves. While we are not repair technicians, we have been able to fix many of the computers when they are not working properly.

  Maintaining our software is another timely, but necessary activity. It takes a considerable amount of time to keep up with the constant advances microcomputer software. We regularly pay attention to articles in trade journals, magazines, and discussions on the Internet about microcomputer software and especially software for educational purposes. This information allows us to make more intelligent decisions about what we should purchase and what can aid us in achieving our goals.

- *Obtaining and Maintaining Educational Software for Other Courses*

  The CLRC staff obtains educational software and makes it available to help our students learn material for various courses. This requires collaboration between the CLRC staff and faculty in other departments to assess the content of these programs.

- *Administering the Higher Education Purchase Plan*

  MCO has a contract with Apple Computer which provides a substantial discount for institutional and private purchase of Macintosh computers. This plan supports the long term goal of having all students own a computer and using this technology as the primary form of information exchange and teaching. Supervising this plan requires a considerable amount of time from the CLRC staff for counseling potential purchasers, preparing and updating price lists and keeping current on the features of the available equipment. This plan allows us to purchase single units of new computers at drastically reduced prices which has decreased the cost purchasing hardware for the CLRC.

- *Support for Dean's Letters*

  Dr. Levin worked with the Student Affairs Staff to develop a better method for having the fourth year medical students write their own Dean's letters under the supervision of a member of the Dean's staff. Dr. Levin developed templates for the letters and address documents and a self-instructional manual to show the students how to use these documents to create their own letter and address list. Despite the detailed instructions that were provided, the CLRC staff was heavily involved in helping the students prepare these letters and showing them how to use the FREIDA database to select their list of residency programs they are interested in.

- *Computerized Syllabus Project*

  Dr. Levin is supervising a project designed to test the value of computerized learning aids for medical students. This project was planned and initiated this year. During this summer, some students will be developing computerized versions of the course syllabi for the major courses in the first two years of medical school. During the coming school year, a group of students will use this courseware and some other software to see whether it is a useful learning aid.

- *National Board CBX Trial*

  MCO will participate in a trial of the National Board's computerized patient case simulations (CBX). In this trial, the majority of our senior medical students will take two days of testing with these case simulations to assist the NBME in evaluating this form of testing. Dr. Levin planned and obtained approval for our participation this year. The actual testing will take place during October and November of 1994.

Other Activities Outside of the CLRC

In addition to all of these activities in the CLRC, Dr. Levin has some responsibilities outside of the CLRC. Along with the rest of the Dean's Staff, Dr. Levin regularly attends Dean's Staff meetings and the Dean's meetings with the Student Council. Throughout the school year, he meets with first year student support groups and is responsible for helping a group students prepare their Dean's letters.

Dr. Levin also serves as a member of the Library Committee, the Curriculum Committee, two OhioLINK committees, the OARnet Advisory Committee and the Board Preparation Working Group of the Medical Education Task Force.

As a member of the teaching faculty in the Department of Pharmacology, Dr. Levin gives five hours of lecture in the Medical Pharmacology course and two hours in the Infectious Disease course.

Staff Changes

Ms. Terri Shiffert moved to a new position in MCO on April 11, 1994. There have been several delays in filling this position with a new person which has made it difficult for the existing CLRC staff to maintain their current responsibilities. As a result of the merger of the CLRC and the Library, many of the administrative functions that Ms. Shiffert was performing will now be performed by Ms. Dawn Durivage. Therefore, Ms. Shiffert's position was modified before it was opened for applications.

Budget

This was the first year that the CLRC operated on an MCO budget rather than an Academic Challenge Grant. There was a substantial cut in funding, resulting in a total expenditure of $158,368 for personnel and operations from two different accounts, supplemented by $90,381 for equipment from the Student (medical) Equipment fund.

Purchases from Student Equipment Fund

Macintosh Computers	$28,915
IBM Computers	25,285
Peripherals	24,816
Furniture	11,365
Total	$90,381

Projects On Hold or Canceled

The major projects which were placed on hold for during this year were the updating of hardware and basic software in the CLRC. Eleven computers in the CLRC are seven years old and of limited utility. They have relatively small hard disks, limited capacity for RAM expansion and black and white monitors. These computers are only continuing to operate now because they have been repaired several times by replacing damaged parts in one computer with functional parts from another computer which is not working because of a different problem. These computers will not last much longer and should be replaced as soon as possible.

Also the basic software which the students are using is out of date. Some of this software has missed two major revisions. This creates two major problems. First, some of the newest computers that we have will not run these older software versions. Second, in some cases we have students and faculty using newer versions of the software at home or in their offices. When they come to the CLRC, our older version of the software is not able to read the documents which they have created.

Finally, the CLRC is in need of additional furniture. Half of the chairs in the CLRC were purchased when the Library building was built and they have been breaking at a rate which is causing a serious problem. At this time we have about 10 more computers in the CLRC than chairs. Thus there are times when a student wants to use one of the computers and they can not because there is no chair for them to sit down at one of the open computers.

All of these factors are seriously limiting the ability of the CLRC staff to offer more and better services to our students.

The other major setback that occurred this year was the disbanding of the Subcommittee on Computers in Education and the omission of any CLRC staff from the new Task Force on Incorporating Technology into the Curricula. The previous Subcommittee on Computers in Education provided the CLRC staff with an effective system of checks and balances, with a sounding board for new ideas and policies and with a group of interested faculty and students to encourage and challenge us to accomplish more. We have been totally cut off from this type of input now which makes it much harder for us to meet the needs of our patrons. Work will begin with the Library Advisory Committee to see if this body can effectively act as an advisory group for the CLRC.

Concerns

The CLRC is considering the following initiatives. However, they are predicted on more clerical duties being turned over to new staff so that current staff could dedicate their time to them.

- *Developing New Materials for the CLRC*

    The CLRC staff have several ideas for new educational software for use by our students. We are interested in developing computerized patient case simulations, simulations of physiological and biochemical processes, and an encyclopedic computerized biomedical reference which could be used by students, faculty and practitioners to study or look up information about any topic in any area of basic science or clinical practice. With sufficient time to develop prototypes of some of these projects, we would be able to apply for external funding to support these projects in full.

- *Maintaining our Instructional Resources*

    All of our classes use self-instructional workbooks for the students to learn the basic features of the software. This makes our teaching efficient so that we are able to handle a large number of students with a very small staff and gives the students the freedom to decide when they choose to learn the material. Moreover, this teaching method gets the students in the habit of learning to use computer software on their own by working with a tutorial manual so that they are prepared with the proper learning skills to be independent learners for their continuing education in this area.

    This past year, the CLRC staff has had very little time available for this type of activity because we are very busy providing one-on-one assistance to students and administering, grading and reporting results on tests for these courses. *Our services will seriously deteriorate in the near future if we are not able to spend an appropriate amount of time developing and maintaining these self-instructional workbooks.* We currently have a very talented and creative staff. We must find a way to provide them with some

uninterrupted creative time so that they can use their skills in a more satisfying and creative manner to contribute to the future of our program.

- *Teaching More Classes for Faculty and Staff*

  Although there have been a number of requests for more classes on computer software for faculty and staff, we currently do not have enough staff time to administer these classes without compromising some of the other things we are already committed to doing. In addition, most of our faculty and staff are using IBM compatible equipment and our hardware in that area of the CLRC is in serious need of repair and/or replacement. At the present time, we only have six IBM compatible computers which are available for use by our patrons.

Triumphs, Anchors and Plans for This Year

- *Triumphs*

  The triumphs of the past year are the installation of the new Medline database and the introduction of courses for the School of Nursing.

- *Anchors*

  The major circumstances which are preventing the CLRC staff from providing more service and support to MCO's students, faculty and staff are insufficient support staff and an inadequate number of IBM compatible computers.

Plans for This Year

The major plans for the coming year are: 1) the administration of new courses for the Schools of Nursing and Allied Health, 2) an update or the Medline software and integration of this service into our campus network, 3) the integration of services and the development of joint projects with the new Library staff, 4) the submission of several grant applications for support of new programs in the CLRC, and 5) a trial test of the NBME computerized patient case simulations for evaluation of our students in third year required clerkships.

Appendices

APPENDIX A

COMBINED ACQUISITIONS EXPENDITURES

FISCAL YEAR	MONOGRAPHS	JOURNAL SUBSCRIPTIONS
1984-85	$52,272	$312,156
1985-86	$94,969	$336,943
1986-87	$84,512	$384,813
1987-88	$54,817	$407,960
1988-89	$16,441	$371,575
1989-90	$41,359	$408,060
1990-91	$19,551	$458,839
1991-92	$48,000	$454,381
1992-93	$26,721	$426,252
1993-94	$51,500	$452,000

APPENDIX B

GLIDDEN L. BROOKS AWARD

The Glidden L. Brooks Award is presented annually to the student who is distinguished by superiority in all phases of the curriculum as selected by the Promotions Committee.

The medal is named in honor of the first president of the Medical College of Ohio. Each one is constructed of gold and numbered. The medal was designed by Alan Melis of the Toledo Museum of Art.

Date	Name	No.
1972	Archival original and mock-up	1
1972	Glidden L. Brooks, M.D., President	2
1972	Paul Garrett, M.D. (first student recipient)	3
1973	Michael McIntosh, M.D.	4
1974	Michael B. Shannon, M.D.	5
1975	Craig T. Hopple, M.D.	6
1976	David Warrick, M.D.	7
1977	Jerrold Lemoine Smith, M.D.	8
1978	Thomas O. Milbrodt, M.D.	9
1979	Andrew Herschel Glassman, M.D.	10
1980	Mark Lowrence Lloyd, M.D.	11
1981	Richard Thomas Schlinkert, M.D.	12
1982	Jeffrey Stuart Ross, M.D.	13
1984	John Patrick Pigott, M.D.	15
1985	(stolen from Alan Melis)	16
1986	Christopher Lee Blanton, M.D.	17
1987	Frederick Arnold Bunge, M.D.	18A
	Matthew Phillip Bunyard, M.D.	18B
1988	David Eugene Custodio, M.D.	19A
	Thomas Gerard McAlear, M.D.	19B
1989	Janette Collins	20
1990	Kelly Schibler	21
1991	Brian Scott Miller	22A
	Todd Andres Scott	22B
1992	Kymberly Anne Gyure, M.D.	23
1993	William E. Hopkins, M.D.	24
1994	Kevin R. Murray, M.D.	25