In this 1990 issue of Tech's Talk—the 44th consecutive year of publication—the editor would like to express her thanks to the Divisional secretaries, Lillian Sarkinen and Laura Walker. They have made many contributions to this newsletter, revising innumerable drafts of articles, making editorial corrections and contributing many appreciated comments on style and content. Their help has been invaluable.

DR. LEO FURCHT NAMED HEAD OF DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY

Following a nationwide search, Dr. Leo T. Furcht was named Head of the Department of Laboratory Medicine and Pathology, succeeding Dr. Ellis S. Benson, who retired from the position in June of 1989.

Dr. Furcht received his undergraduate degree from Columbia University and graduated from Medical School at Upstate Medical Center, Syracuse, New York. He came to the Department in 1972 as a Pathology resident. During his tenure here, he has served as Director of the Residency Fellowship Training Program, Director of the Medical Student Fellowship Program and is currently Director of the Medical Fellowship Training Program and Director of the Biomedical Engineering Center. Dr. Furcht was also responsible for the development of the new M.D./Ph.D. program at the University of Minnesota Medical School, and serves as its Director.

Dr. Furcht is nationally and internationally known for his research program, which focuses on cell adhesion molecules such as fibronectin and laminin which are present in basement membranes, connective tissue and plasma. Using isolated peptide regions from these molecules, his research group is determining the function of these peptides in tumor metastasis, diabetic complications, neurite outgrowth and wound healing. Dr. Furcht has held two endowed chairs: the Stone Research Professorship in Pathology from 1982 to 1987, and is currently the Allen-Pardee Professor of Cancer Biology.

The Division of Medical Technology wishes Dr. Furcht well in his new position of Head of the Department of Laboratory Medicine and Pathology.
GOLD AND SILVER CLASSES HONORED

Each year we continue our tradition of honoring the 50th and 25th anniversary classes. This year they include the following:

Class of 1940 (50th Anniversary)

*Inga Loken Aanstad
Dorothy Erickson Barker
*Lillian Braemman Bell
**Mary Jane Buckman
*Dorothy Stansby Burgoon
*Hedvig Swanson Carter
**Elaine Borgerding Casey
*Barbara Cook
Kathleen Weiland Cunningham
Adelle Johnson Davidson
Edna Abeln DeVos
**Barbara Ronsberg Donehower
*Jean Hay Dougherty
*Geraldine Smith Evans

*Esther Lyons Falk
Grace Buckman Fangmann
Melvin Fossan
Ruth Rossman Fulton
Mary Moriaty Galvani
Margaret Flagstad Guthrie
*Doris Hoffman Hirsch
*Mary Elizabeth Hoskins
*Margaret Olander Howe
*Gertrude Kruger Kerr
*Lucille Larson
Dorothy Longfellow
*Irma Miller
Dorothy I. Muirhead
Selma Sandstrom O'Brien
*Edna Kruger Parenteau
*Naida Pennington
**Mary Harris Potter
*Jeanette Stephens Powell
Janet Crane Prevey
*Marion Stettenbenz Redifer
**Helen G. Richmond
Suzanne Agnew Snively
Allegra Pedersen Stehr
Margaret Strane
Dorothy Phelps Taylor
Lenore James Willard

Class of 1965 (25th Anniversary)

Kathleen Shoeman Arco
Anne Smith Biddle
Jean Tomisak Bucksa
Barbara Budde Droslan
Pamela Schaaf Buros
*Elsa B. Bye
Mary Kuefner Carlson
Marilyn Scovil Cavanaugh
Kathleen Dolan Daly
*Carol Debek
Lois Ozwoeld Dobrin
Dorothy Carlson Duffell
Judith Radda Evans
Linda Vogt Gallick
Janice Rinkey Godes
Helen Nordine Hallgren
Mary Kerola Hendrickson
Marrirose Lamusga Hook
Karen Broberg Lamberg
*Nancy Plutzer Lance
*Mary Ann Lindeman Larsen
Linda A. Lewis
*Jan Lindstrom
Jane Fisher Mayer
*Betty McMartin
*Lois Hamblin Moeller
Linda Livingston Moskalik
Julia Mattson Nelson
Patricia Mortenson Norgren
Joanne Johnson Olson
Marilyn Lauring Olson
James Parkin

*Virginia Seabold Postma
*Susan Totushek Redenbaugh
Karen Roeller
Sandra Gotesman Ruttick
Janet Schroeder Saulsby
Linda K. Schwalen
*Susan T. Schwartz
Mary Severn
Ann Holmberg Sirota
Mary Perlich Sundeen
*Karen Dedina Thrower
Carol Riekkii Van Hale
Marlene Peterson Voita
James D. Voita
*Joan Zenk
Susan Miller Zinschlag

*Address unknown
**Deceased

If you are a member of either class, please make a special effort to attend the annual alumni banquet (reservation form on the last page). You and your classmates will be seated together, so you will have the opportunity to renew friendships.

We like to keep track of our graduates, and you can do us a favor by sending us the addresses of any of the people with whom we have lost contact. Thanks.
CONTRIBUTIONS TO MEDICAL TECHNOLOGY

Each year, many of our alumni are contacted by telephone and are asked to donate monies to the Medical Technology teaching program. Callers are students of the University who work for approximately three hours a night, calling alums from a number of programs. You may wonder whether these student callers are in the Medical Technology program. Usually they are not. Our students are more likely working part-time in the clinical or research laboratories of the University.

To prepare student callers, Karen Karni, the program director, provides them with written information regarding how past alumni monies were used, e.g., to purchase special equipment for the teaching laboratories, to assist students working on research projects or to add to the scholarship program. She then meets with the callers to bring them up to date on current initiatives and to answer questions they may have.

Students then call our alums, using the offices and WATS lines of the University Alumni Association in Morrill Hall. (Regular staff have gone home for the evening.) The esprit de corps among callers is excellent, as students know they are working on very worthy projects, and they also get the chance to call folks all over the United States. Last year, over $1 million was collected for the University, including 332 individuals who contributed $11,000 to the Medical Technology Special Fund.

We appreciate the efforts of these young student entrepreneurs. If you receive a phone call from one of them, please be courteous—and generous! And, if they aren't entirely knowledgeable about our program, it may mean that they've just called 20 graduates of nursing or business administration.

As in the past, we thank our alumni for providing donations to do those "extras" that maintain our program as the best in the nation. We especially wish to thank and recognize the following individuals who, according to available records, have contributed $100 or more in the past year:

- Benson, Ellis S.
- Canfield, Lorna Henderson
- Cavanaugh, Marilyn Scovil
- Coleman, Irma Koskella
- Coulter, Marilyn Jenne
- Dahl, Robert
- Damron, Esther Skerik
- Freier, Esther F.
- Hallgren, Helen Nordine
- Hoefl, Janet Smith
- Kami, Karen Soderberg
- Klein, Marilyn M.
- Miller, Aldora Loe
- Rausch, Verna L.
- Richardson, Philip
- Snively, Suzanne A. Agnew
- Stewart, Lorraine Gonyea
- Wagner, Dlys Green
- Weiss, Phyllis Hanson

We would also like to thank those individuals and organizations who contributed to the Hovde O'Brien Scholarship Fund in memory of Ruth Hovde, professor emeritus and former director of the Division of Medical Technology, who died February 9, 1989. The following contributed $100 or more in her memory:

- Benson, Ellis and Ann
- Bradley, Mary
- Clayson, Kathleen
- Coulter, Marilyn Jenne
- Ederer, Grace Mary
- Ferrieri, Patricia
- Fiorella, Beverly
- Gaul, Neal and Sarah
- Goldberg, Ann
- Hoefl, Janet Smith
- Jacobson, Mary Lunzer
- Joseph, Stavri
- Laboratory Medicine & Pathology Associates
- Melamed, Barbara Goldbarg
- MN Society for Medical Technology
- Okada, Toni D.
- Olson, Jeanne C.
- Rausch, Verna L.
- Rohwer, Carl
- Snoga, Harriette Broman
- Sundberg, R. Dorothy
- Viskochil, Karen
- Web, Donna Fadden
- Yarbrough, Elaine Hovde
- Zieske, Kathryn Grave
EMPLOYMENT FIGURES AND TURNOVER RATES AMONG TWIN CITIES LABORATORY PERSONNEL

A study of the trends in employment and turnover of laboratory personnel in the major health care institutions of the Twin Cities area has recently been conducted by Karen Karni. Between 1970 and 1980, numbers of laboratory personnel doubled, from 1,302 to 2,457; however, in 1987, total numbers were 2,459. One reason for the leveling in numbers of personnel has been the closure or conversion of seven hospitals in the area. These hospitals include: Riverview Memorial (closed), Samaritan Hospital (closed), Mounds Park (closed), St. John's-St. Paul (closed), Golden Valley Health Center (psych/rehab), Lutheran Deaconess (psych/rehab), Eitel (psych/rehab). A second reason has been hospital mergers, e.g., we now have Riverside Medical Center (formerly Fairview and St. Mary’s), Health East (Bethesda, Midway, St. Joseph’s, Divine Redeemer), and Health One (Metropolitan Medical Center, Mt. Sinai, Mercy, United, formerly Miller-St. Luke’s, and Unity). With mergers, laboratories and staffs have been reduced.

Personnel numbers have also been influenced by government regulations instituted in 1983. Under the Prospective Payment System, reimbursement for Medicare patients is established as a set amount of money paid to the institution, based on the patient diagnosis. As a result, laboratories are considered cost centers rather than revenue-generating centers, since patients or third-party payers cannot be billed for laboratory tests. It is also thought that the increasing use of automated instruments and computers may cause a reduction in the numbers of personnel needed to staff clinical laboratories.

On the other hand, other forces predict increased utilization of laboratory personnel. These include: new and sophisticated methodologies and equipment, requiring highly educated personnel; and the emergence of new laboratory specialties and subspecialties. In addition, there are expanded roles for laboratory personnel, e.g., as consultants and advisors, computer programmers, test developers, quality assurance managers. These influences would tend to cause more medical technologists to be hired.

Our data (shown in the Table) suggest that numbers of medical technologists increased slightly between 1980 and 1987 in most operating hospitals and blood banks, while numbers of medical laboratory technicians increased in HMOs and clinics. The closure of seven hospitals between 1980 and 1987 released 211 laboratory personnel, including 144 technologists, to the market pool. The influence of the Prospective Payment System is uncertain, but may have contributed to the mergers of laboratories in this area. Medical technologists are being hired increasingly in new laboratory specialties and subspecialties, and some have assumed expanded roles. Thus, total numbers of personnel required in this area in the future will probably remain at about 2,500, of which 55 percent will be medical technologists. The annual turnover rate for medical technologists in the current study was 10 percent, cyto-technologists and histologic technicians were at 6 percent, technicians at 16 percent, and others (primarily phlebotomists) had an annual turnover rate of 25 percent. Complete details of this study will be published in a forthcoming issue of Clinical Laboratory Science.

<table>
<thead>
<tr>
<th>Kind of Institution</th>
<th>MT</th>
<th>Cytotech</th>
<th>Histotech</th>
<th>MLT</th>
<th>Other, e.g., Phleb, EKG Tech, etc.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals (22)</td>
<td>1,182</td>
<td>44</td>
<td>86</td>
<td>253</td>
<td>375</td>
<td>1,940</td>
</tr>
<tr>
<td>Blood Banks (2)</td>
<td>76</td>
<td>0</td>
<td>0</td>
<td>44</td>
<td>1</td>
<td>121</td>
</tr>
<tr>
<td>Reference Labs (2)</td>
<td>21</td>
<td>7</td>
<td>0</td>
<td>13</td>
<td>51</td>
<td>92</td>
</tr>
<tr>
<td>HMO (1)</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>87</td>
<td>6</td>
<td>118</td>
</tr>
<tr>
<td>Clinics (4)</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>112</td>
<td>36</td>
<td>188</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1,344(54.7%)</td>
<td>51(2.1%)</td>
<td>86(3.5%)</td>
<td>509(20.7%)</td>
<td>469(19.1%)</td>
<td>2,459</td>
</tr>
</tbody>
</table>
On May 3, 1989, over 150 colleagues and friends gathered in Moos Tower of the Health Science Campus to commemorate the naming of Esther Freier to the Mildred King Rohwer Professorship in Medical Technology. This was a grand day for the University as well as the profession, since it represented the first award of this nature in Medical Technology in the nation.

Carl Rohwer of Wichita, Kansas, provided $250,000 to establish the professorship that bears his wife's name. Mildred King Rohwer was a 1933 alumnus of this program who initially worked in the clinical and research laboratories of the University, and later kept close ties with the Division through her letters as well as contributions to our scholarship program. She died of leukemia in 1987. In accordance with their plans, Mr. Rohwer donated the monies required for an endowed professorship. While he could not be present at the ceremony, his sister, Dorothy Storey, as well as Mildred's sister, Evalyn Joachin, travelled from Kansas to represent the family.

The commemorative program began with opening remarks by Karen Karni, representing the Division of Medical Technology; Richard Bruning from the Department of Laboratory Medicine and Pathology; and Michael Steffes, representing the Clinical Laboratories of the University of Minnesota Hospital and Clinic. Verna Rausch, Professor Emeritus, remembered Mildred King in a poignant recollection of her 42-year association with Mrs. Rohwer—first as a student and later as a friend and correspondent.

Catherine Leiendecker-Foster, Supervisor of Clinical Chemistry and Toxicology at the Veterans Administration Medical Center, introduced Professor Freier in a light-hearted reminiscence of her experience as a Masters student in Medical Technology, with Esther Freier as her thesis advisor. Professor Freier then presented the lecture, Many Shall Run To and Fro, a summary of some of her research findings and their implications to medicine. The title of her talk was chosen from the Book of Daniel; it represented the theme that a technologist who keeps his or her eyes open often can see things that a clinician cannot. Various titles of publications cited in her presentation included: 'Quality Control in Clinical Chemistry,' (the pioneering work first published in 1958 with Verna Rausch as co-author); "The Occurrence in Surgical Patients of Severe Hypernatremia Without Exogenous Dehydration;" "Cirrhosis Associated with Alpha-1-antitrypsin Deficiency: A Previously Unrecognized Inherited Disorder;" and "Artifactual Elevation of Serum Creatinine Level Due to Fasting."

Presentation of awards to the Rohwer Family and to Professor Freier by David Teslow, Executive Director of the Minnesota Medical Foundation, and Karen Karni, of the Division of Medical Technology, concluded the official ceremony. A reception followed in the Campus Club of Coffman Memorial Union.

This was a special day for many persons—for our benefactor, Carl Rohwer, who was with us in spirit and who received a videotape of the event; for Esther Freier, a 43-year member of our faculty; as well as for family, friends, colleagues and students of Professor Freier, who celebrated with her as she was awarded this prestigious honor. It was also a wonderful event for supporters of the Division of Medical Technology at the University of Minnesota.
MEDICAL TECHNOLOGY STUDENT COUNCIL

Students in the professional program are represented on the Medical Technology Student Council by elected members from each class. Student Council officers for 1989-90 are: Tamara Hoetzel, President; Dave Ellis, Vice-President; Jane Dunham, Treasurer. The purpose of the Student Council is to promote student-faculty relationships, to provide student input to the program and to stimulate educational and social activities. While the Student Council officers' main function is to serve as liaison between faculty and students, another important function is directing class fund-raising activities.

An ongoing fund-raiser has been the selling of Medical Technology sweatshirts. The gray sweatshirt design shown is an original from the 1989 MT class (where did they ever find a monocular microscope?). They also sell a maroon sweatshirt with the Regent's seal plus Medical Technology lettering. This year sweatshirts were displayed and orders taken at the MAA-MSMT Fall Meeting. If you would be interested in purchasing either type of sweatshirt, please call (612) 625-9490 to place your name, address, and phone number on an order list. The deadline for these orders has not yet been determined.

Each year class pictures are sold, with proceeds going to the Student Council treasury. The class will pursue other fund-raisers this year—perhaps a bake sale to help defray costs of their social activities. An annual social event held in January is a luncheon with the senior class hosting the junior class. A pregraduation celebration of the class' choice is also an annual event. Traditionally a class gift is presented at graduation with the Student Council guiding this project.

SPECIALTY ROTATIONS FOR SENIORS

Remember senior clinical rotations and what it was like being exposed to all the practicalities and generalities of hematology, chemistry, microbiology, and immunohematology? Perhaps you wanted to learn a specialized procedure but there was no opportunity. Maybe you wanted to focus on a more specific area, such as assessing the condition of a patient's lungs? How about diagnosing a disease state based on analysis of cell surface markers; using the latest technology to perform special coagulation tests; or learning procedures to evaluate cardiac function? Wouldn't it have been great to rotate through a lab that was doing something uniquely of interest to you?

During the 1989 senior rotations, our students took advantage of a new program that provided them with just this kind of an opportunity—a one-week program that allowed them to focus on a special area of interest. Eight different laboratories including pulmonary function, advanced virology, immunopathology, immunophenotyping and flow cytometry, EKG, advanced coagulation, surgical pathology, and cardiac catheterization offered seniors the option of performing specialty rotations with their staffs. The popularity of this program is attested to by the fact that nearly the entire class of 1989 spent at least one week in a specialty rotation and some of the students are now employed in a related field.

Our faculty were particularly impressed by the quality of instruction provided to these students in the specialty laboratories. Supervisors and staff carefully planned the students' experiences and worked closely with them. The one-week specialty rotation has been one of the most positive and popular outcomes of the curriculum revision instituted in 1987.
A ‘REFRESHING’ EXPERIENCE

As we enter the 90’s, the Division of Medical Technology is experiencing a startling increase in the number of veteran medical technologists seeking an opportunity to update their skills and knowledge in the profession. In the fall of 1989, nine “refresher” students registered for one or more of the various Medical Technology courses available. Because of the dramatic resurgence of these students, we believed it worthwhile to interview some of them to determine what was the driving force that returned them to the profession. Perhaps there are others who need a little encouragement, some reassurance or simply to know that the opportunity exists. Medical technologists are in demand. You too, can update your training in the area of your profession that interests you and re-enter the 1990’s job market.

Hariett Edwards, a University of Minnesota Medical Technology honors graduate in 1970, returned after being away from the field for 18 years. While away, she raised three lovely daughters; the oldest is currently an engineering student at the University of Wisconsin in Madison. Hariett has also been working part-time for Montgomery Wards in various aspects of commercial retailing such as personnel, receiving, inventory and sales.

But in 1985, Hariett did return to the U of M for information about refreshing in the Med Tech curriculum. However, the timing wasn’t right and it wasn’t until the fall of 1989 that she returned. Since then, she has taken four courses (Urinalysis, Hematology I & II, and Chemistry) and is enjoying it immensely. As Hariett puts it, “I decided to take it slow and to commit to one course. But you know, it’s like nibbling at a candy bar; once you take the first bite, you can’t STOP.” Hariett’s family is thrilled and extremely supportive of her return to “refresh”. What are her future plans? After Spring Quarter she intends to look for a medical technologist position that offers some flexibility in scheduling and then who knows? After doing this, she has the confidence to pursue almost anything and succeed.

Sharon Koll is a 1966 St. Catherine College graduate who completed her Medical Technology internship at St. Joseph’s Hospital in St. Paul. She worked as a medical technologist at Divine Redeemer Hospital and at St. Paul Ramsey Medical Center until 1974, at which time she switched gears to raise a family. During this time she was also actively focusing her efforts with various volunteer organizations (St. Paul Junior League, Red Cross, and various political campaigns). Sharon acknowledges that initially she was bored with the routine of the profession and decided to change careers on return to the job market. She became an accountant with H & R Block and a real estate agent; she also worked for the IRS, performing information research and answering tax questions. But according to Sharon, Medical Technology kept popping up in her mind and she finally answered the call back to the profession in the spring of 1989 by taking the “Introduction to Clinical Immunohematology” course (Blood Banking is the name most of us veterans can relate to). She was hooked. Sharon remarks, “It was so refreshing and challenging. So much diverse and exciting information, especially here at the University. This is the place to be challenged, a place of excellence.” Sharon plans to take the “Principles in Clinical Chemistry” course this spring and would like to specialize in chemistry and perform some research. The possibilities are endless.

If you have been considering re-entering the profession, but feel your skills are out-dated, call the Medical Technology office at (612) 625-9490, and request our Refresher Program brochure. If you wish, one of our refresher students will be happy to speak with those interested in returning to the laboratory field.

NATIONAL CERTIFICATION AGENCY NEWS

The National Certification Agency for Medical Laboratory Personnel (NCA) was founded in 1978. The sponsoring organizations were the Association of Cytogenetic Technologists and the American Society for Medical Technology. The first NCA examinations, in the clinical laboratory scientist and clinical laboratory technician categories, were given in July 1978. To date, over 44,000 candidates have received NCA certification by examination in 10 categories of practice, including several specialist and management categories. This figure does not include those who were certified through the “grandfather” clause, when NCA was originated.
MEDICAL TECHNOLOGY SPECIALIST PROGRAM

As part of the new medical technology curriculum adopted in 1986, senior students may elect to spend two ten-week rotations in a specialty area such as chemistry, hematology, microbiology, immunohematology, biochemical genetics, or computer science to become a specialist. The Specialist Rotation then replaces the traditional clinical rotation of five to six weeks in each of the four general areas of chemistry/urinalysis; immunohematology/immunology/virology; hematology/coagulation; and microbiology.

The Specialist option for clinical rotations is intended to encourage and stimulate individuals with a strong academic background who may plan to pursue a career in a specific area or enroll in graduate school. Students must fulfill a research project during the rotation in the specialty area and must present the results of their research in both written and oral form to the faculty. To be admitted into a specialty rotation, the student must have an overall grade-point average of 3.0 in all medical technology courses and a minimum grade of B in the related senior course. Students selecting a specialty track will still be prepared to take a generalist certification examination because they have completed preclinical courses in all areas during their fourth year.

Our first group of students from the new curriculum entered their clinical rotations this past year, and one student--Sheila Steele--selected a Specialist Rotation in chemistry. Sheila spent the first ten weeks of this time rotating through the various areas of the clinical chemistry laboratory, including critical care, urinalysis, drug analysis, enzymology, proteins, steroids/lipids, endocrine/RIA, biochemical genetics, and serology. The second half of her rotation was spent on a research project in which she studied methods for the determination of pyruvate and acetoacetate by kinetic analysis using a centrifugal fast analyzer and by analysis using enzymatic head space gas chromatography. Her faculty advisors for this project were Esther Freier and Naomi Hanson.

Both the faculty and Sheila agree that this first experience with the Specialist Rotation was quite successful. Sheila believes that her research experience and the specialized instrumental techniques she learned during the rotation are especially helpful to her now in her current employment at INCStar Corporation.

STAFF SELDOM STUMPED

The Health Sciences student group C.H.I.P. (Council for Health Interdisciplinary Participation) publishes a monthly newsletter which always includes a puzzle of some type. A prize is given to the winner, whose name is drawn from the pool of correct answers. The Medical Technology faculty and staff collectively solved the following puzzle from the January issue, and won a gift certificate to Chi Chi's Mexican Restaurant. We reprint the puzzle here for your enjoyment--answers will be found elsewhere in this publication.

Antigrams are anagrams in which the letters of a word are reorganized to form a word or phrase meaning the opposite. Answers are one word. Solve the following:

1. I LIMIT ARMS
2. IS IT LEGAL? NO
3. FINE TONIC
4. NICE TO IMPORTS
5. AIM TO CONDEMN
6. TEAR NO VEILS
7. ARCHSAINTS
8. ARE ADVISERS
9. MORE TINY
10. CARE IS NOTED
FALL GRADUATION CEREMONY HELD

For the first time ever, the Medical Technology graduation and oath ceremony was held in the fall last year. Due to our curriculum revision, most senior students now finish their clinical rotations at the end of the year, rather than in the spring. Twenty-five students took part in the ceremony, which was held November 18, 1989, in Moos Tower on campus.

Deanna Heil, president of the Medical Technology Student Council, served as moderator of the program, and began by welcoming the large audience (estimated at ~300 people). Dr. Richard Brunning, professor and acting head of the department of Laboratory Medicine and Pathology then introduced the faculty, and extended greetings from the department. The graduation address was given by Karen Karni, director of Medical Technology. Her talk, "Do Not Go Gentle", was based on the poem by Dylan Thomas. Following the address, several seniors gave a slide presentation of class activities, and presented the senior gift. Carol Wells, assistant professor, next announced the senior awards.

Following the conferring of degrees by Karen Karni, each student was presented with a gift from the alumni by Billi Anne Juni, president of the Medical Technology Alumni Association. The students then recited the Medical Technology oath in unison. As each came forward individually to sign the oath, Karen Lofsness, assistant professor, announced the student's name, home, and plans for the future. Since there are several international students in the class, a map which indicated each student's home was projected in the auditorium (see below). The ceremony concluded with "Hail Minnesota", and the guests were invited to meet the new graduates at the reception which followed. The class of 1989 included:

Denise Anderson, Ortonville MN
Silas Udogadi Anorue, Owerri, Imo-state, Nigeria
Bruce Backlund, Roseville, MN
Jacqueline White Backlund, Mendota Heights, MN
Lorie Barth, Duluth, MN
Doreen Decker, Rochester, MN
Kevin Eastlund, New Hope, MN
Deanna Heil, Apple Valley, MN
Kerri Lynn Harvela, Superior, WI
David Craig Johnson, Ames, IA
Linda Johnson, Richfield, MN
Teresa Marie Kemmer, Bloomington, MN

Joseph Wayne Klancher, Minneapolis, MN
Phil Korkowski, Hastings, MN
Hannah Lee, Seoul, Korea
Kim Little, Rosemount, MN
Muhadditha Mehdi, Dubai, United Arab Emirates
Heena B. Patel, Dar-es-Salaam, Tanzania
Henry Russie, Jakarta, Indonesia
Ry Rybar, Batembong, Cambodia
Therese Marie Schierman, White Bear Lake, MN
Sheila Marie Steele, Green Bay, WI
Anita Wong, Hong Kong

[Map of the world with Medical Technology Class of 1989 marked on it]
SIXTH ANNUAL ALUMNI SOCIETY
FALL PROGRAM REVIEW

"Take Charge of Your Profession" was the topic of the Sixth Annual Fall Program sponsored by the Medical Technology Alumni Society of the Minnesota Alumni Association, held on November 29, 1989. The event was co-sponsored by the Minnesota Society for Medical Technology; once again, it was a partnership of benefit to both organizations.

The meeting was held at the Humphrey Center on the University of Minnesota West Bank Campus. Participants were pleased with the facility, which we hope to utilize again in the future. The social hour and dinner were enjoyed by about 75 people with another 10 joining the group for the program.

The program format consisted of a panel of three allied health professionals, other than medical technologists, whom we asked to present based on their experiences and insights. Clareyse Nelson, President-elect of MSMT, served as moderator. Henry Blissenbach, Pharm. D. and Director of Pharmacy, United Health Care Corporation, spoke on issues of attitude, identity and image from the point of view of a profession that has taken charge. Glenn Scudder, from the University of Minnesota Physical Therapy program discussed the evolution of self-determination through licensure, education, and specialization as practiced by his profession. Gretchen Musicant, RN, MPH, staff specialist and lobbyist for the Minnesota Nurses Association, provided a practical explanation of the importance and mechanism of how a professional organization can become involved in shaping and even initiating legislative decisions that affect it. It was rewarding to hear from these allied health professionals, to see commonalities of professional issues, and to learn from their experience.

Look for our Seventh Annual Fall Program in 1990, as we plan to continue to provide a forum for current issues facing our profession.

RECENT RETIREES

Each year we say "so long" to medical technologists who retire from active duty. This year the managers of two University laboratories have decided to retire. We will miss them, but wish them well in their new lives.

Del Bennett, a University of South Dakota graduate, left as Manager of the Coagulation Laboratory. After working in Sioux Falls and Seattle, she came to the University of Minnesota to conduct coagulation research with Dr. Edson. In 1968, Coagulation became a separate laboratory, splitting from Hematology, and Del was the only technologist. Today the Coagulation laboratory employs 22 technologists. Del says she will miss the people with whom she has worked and the student contacts, but she plans a full life working on her interest in genealogy research.

Jan Schultz, a 1951 University of Minnesota graduate, will retire from her position as Boynton Health Services Laboratory Manager. Following graduation she worked in the Outpatient Laboratory at the University. After holding positions at Bethesda and Samaritan Hospitals in St. Paul, she returned to the University and Boynton Health in 1974. Jan leaves to pursue her many interests in education, ancient history, archeology and travel, but most of all she just wants to play golf!
THE HOVDE-O'BRIEN SCHOLARSHIP FUND
THE GONYEA STEWART SCHOLARSHIP FUND AND
LOAN FUND

The Hovde-O'Brien Scholarship is administered through the Medical Technology Division; all students in the professional program are eligible. William O'Brien was the head of Medical Technology from 1925-39 and established the first rotation of medical technology students through the clinical laboratories. Ruth Hovde was professor and Director of the Division of Medical Technology for 20 years from 1964-84. Recipients of the Hovde-O'Brien Scholarship are chosen on the basis of financial need, scholarship, and future potential. This year, six students received awards ranging from $300 to $800. These students were Deborah Carlson, Kerri Hirvela, Tamara Hoetzel, Hannah Lee, Roseann Miller, and Jennifer Subra. The number and amount of these scholarships varies from year to year depending on the number of deserving applicants and the availability of funds. It is hoped that the these funds will continue to grow over the years. Those interested in contributing to this scholarship fund can send donations to the Division of Medical Technology, Box 198 UMHC, University of Minnesota, Minneapolis, MN 55455.

Two separate funds, namely the Gonyea-Stewart Scholarship Fund and the Gonyea-Stewart Loan Fund, were established in 1986 by Lorraine Gonyea-Stewart, a retired member of our faculty. This year, two students, Jean Goenner and Ry Rybar, were awarded Gonyea-Stewart Scholarships, and each student received $300 from this fund. The purpose of the Gonyea-Stewart Loan Fund has been to provide short term, emergency loans to students who may need them for a variety of reasons. This year, two students utilized this fund in order to pay their educational expenses in a timely manner. The Division of Medical Technology wishes to express its gratitude to Lorraine Gonyea-Stewart for establishing these two important funds that are available exclusively to students in Medical Technology.

MEDICAL TECHNOLOGY ALUMNI SOCIETY SPRING MEETING AND BANQUET

The annual Spring Meeting and Banquet for Medical Technology alumni and friends is planned for Tuesday, May 15, 1990, at the Woman's Club of Minneapolis, 410 Oak Grove Street (see reservation form for details). This event is once again planned to coincide with the Spring MSMT Meetings for any persons who want to include the alumni banquet with the professional meetings.

During this year's business meeting, Society members will vote on a revision of their Bylaws and Constitution. Briefly, the document has been updated to: change the name of the organization to Medical Technology Alumni Society, clarify the succession of Vice President to President, include a student representative on the Board of Directors and assign the role of membership chair to the Past President. Revised copies of the document will be available for review at the meeting.

This banquet traditionally honors the 25th anniversary class (from 1965) and the 50th anniversary class (from 1940) in Medical Technology from the U of M. Beginning this year, members of the 10th anniversary class (1980) will be recognized at the banquet. Students in the current graduating class in Medical Technology will again be guests of the Society. The Medical Technology Alumni Society Board of Directors is making every effort to make this a special evening for all of these alumni and students.

This banquet event is one for reminiscing in general; a display of photographs, correspondence and other memorabilia received from alumni who provide them will be available for everyone's enjoyment. We encourage all alumni to send in information for this purpose (see "Let's Keep in Touch"). The Woman's Club provides a fine atmosphere for this gathering of colleagues and friends and is also well known for its excellent food. Once again, we look forward to a wonderful evening.
KAREN KARNI AUTHORS CAREERS BOOK

“Opportunities in Medical Technology Careers” is the title of a new career guide written by Karen Karni, Director of Medical Technology and Jane Sidney Oliver, former Director of Government and Professional Affairs for ASMT. National Textbook of Lincolnwood, IL, is the publisher.

This 160-page publication provides a description of the career opportunities afforded to men and women by the profession of clinical laboratory science. It includes up-to-date information on the scope of practice, training, educational requirements, salary levels and employment outlook for medical technologists. The book, along with a new videotape called “Careers in Clinical Laboratory Science” forms the basis of a ‘career kit’ put out by ASMT as a recruitment strategy, particularly useful for the high school level.

Also included in the career kit is ASMT’s Employment Opportunitites Program (EOP), a new service designed specifically to bring the most qualified job applicants together with the nation’s leading clinical laboratory science employers. Included are the Directory of Employers, a unique publication that provides an extensive listing of the leading clinical, academic and industrial employers nationwide, and EOP News, a quarterly update on current position vacancies as well as insights into the employment trends of the field. For anyone interested in the EOP, information can be obtained from Jodi Maggin at ASMT, telephone (202) 785-3311.

ITEMS FROM PREVIOUS ISSUES OF TECH’S TALK

1950 - The University of Minnesota laboratory staff consists of 28 technologists in 10 laboratories: Hematology, Urines, Chemistry, Tissues, Bacteriology, Blood Bank, Dispensary, BMR-ECG, Parasitology and Serology.

1960 - The laboratory activities of the University Hospital are consolidated into the Department of Laboratory Medicine with Dr. Gerald T. Evans as Head. The Department consists of three Divisions: Medical Technology, Clinical Pathology and Laboratory Service.

1970 - ASMT is in litigation with ASCP, asking for greater autonomy in matters concerning education, accreditation and certification of medical technologists.

1980 - Average Twin City starting salary for a generalist medical technologist without experience is $13,464 per year. Top of the range salary is $17,640 per year.

DID YOU KNOW?

The Medical Technology program at the University of Minnesota is now in its 67th year; the program was established in 1922. Over the past 67 years, 2,452 students have graduated from the program. The Master's degree program in Medical Technology graduated 55 students during the period 1959 to 1988. The Clinical Laboratory Sciences Master's degree program which now exists resulted from a merger of the previous Medical Technology and Laboratory Medicine programs.
GRADUATE EMPLOYMENT SURVEY

The pattern of employment positions obtained by recent graduates is changing. The key shift has been an increase in employment in industry or reference laboratories, specifically by a drug analysis laboratory in the Twin Cities. In 1989, fifteen percent of all Medical Technology graduates from the five Twin Cities programs accepted work in industry, whether in drug analysis or in entrepreneurial endeavors. The Table below shows these trends in type of employment and geographic location for members of the last five University of Minnesota graduating classes.

Over the last five years (1985-1989), approximately 90-95% of the University of Minnesota Medical Technology graduates selected a first position in the state of Minnesota.

Fewer graduates were hired by the University of Minnesota Hospital and Clinic in 1989 due to retrenchment of laboratory staff. Presently, there are approximately 520 FTEs in the University Hospitals laboratories. More University students evaluated options off campus. Nevertheless, four graduates found day positions in Hematology, Immunophenotyping, and the Out-Patient Laboratory.

Another interesting observation was the increased placement of graduates to positions in out-state (rural) Minnesota. These individuals were not forced to consider these locations because of a lack of opportunities in the metropolitan area. These positions were selected by choice, as the salaries were more competitive than those in the metropolitan area.

As a point of information, the current Senior class is at capacity (30) due to refresher students who have shown renewed interest in the profession, most likely as a result of the personnel shortage in the state.

The variety of employment opportunities appears to be increasing and provides an encouraging future. The severe shortage of laboratory professionals at the national level was not addressed in this survey. However, employment requests received by our office for graduates are definitely increasing.

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<tr>
<th>Medical Technology Graduate Placement</th>
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<tr>
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<tr>
<td><strong>Number of Students</strong></td>
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<tr>
<td>25         19          21          23          25**</td>
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<tr>
<td><strong>First Employment:</strong></td>
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<tr>
<td><strong>U and/or Affiliates</strong></td>
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<tr>
<td>60%         68%         86%         56%         16%</td>
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<tr>
<td><strong>Other Twin City hospitals</strong></td>
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<tr>
<td>4%          5%          ---         16%         8%</td>
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<tr>
<td><strong>Rural Minnesota hospitals</strong></td>
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<tr>
<td>---         ---         ---         ---         12%</td>
</tr>
<tr>
<td><strong>Hospital in another state</strong></td>
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<tr>
<td>---         ---         ---         4%          4%</td>
</tr>
<tr>
<td><strong>Research</strong></td>
</tr>
<tr>
<td>16%         21%         5%          4%          ---</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
</tr>
<tr>
<td>4%          ---         4%          ---         8%</td>
</tr>
<tr>
<td><strong>Clinics</strong></td>
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<tr>
<td>---          5%          5%          ---         4%</td>
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<tr>
<td><strong>Reference Laboratories</strong></td>
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<tr>
<td>4%          ---         ---         12%         16%</td>
</tr>
<tr>
<td><strong>HMO’s - Twin Cities</strong></td>
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<tr>
<td>---          ---         ---         4%          ---</td>
</tr>
<tr>
<td><strong>In Medical/Graduate School</strong></td>
</tr>
<tr>
<td>12%         ---          5%          4%          1 app</td>
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</table>

| **Geographic Locations:**            |
| **Minneapolis/St. Paul**             |
| 88%         84%         90%         91%         48%         |
| **MN (Outside of Metro area)**       |
| ---          11%         5%          ---         20%         |
| **Out of State**                     |
| 12%         5%          5%          9%          12%         |

** Five students have not yet completed rotations. One person will return to the U.S. for employment later in the year.
MEDICAL TECHNOLOGY ALUMNI SOCIETY

The Medical Technology Alumni Society (MTAS) is a constituent society of the Minnesota Alumni Association (MAA). When graduates of the Medical Technology program join the MAA, they become members of the MTAS. The MTAA Board of Directors functions actively to conduct the affairs concerning Medical Technology alumni. Board members serve three year terms beginning in June/July. Goals of the MTAS include the following:

- Assist in the recruitment of high ability students to the University of Minnesota (specifically to the program in Medical Technology), introduce students to issues of current concern to the profession of Medical Technology, and generally enhance the student experience at the University of Minnesota;
- Support college and University fund-raising activities;
- Encourage membership in the MAA;
- Promote the professional interests of Medical Technologists and cooperate with other professional organizations (especially the Minnesota Society for Medical Technology) in promoting a high standard of professional service;
- Work to benefit the program in Medical Technology at the University of Minnesota where possible;
- Support the MAA’s legislative network, and
- Communicate MTAS, MAA, and University issues to alumni.

The Board of Directors meets bimonthly and plans two main events each year--the Annual Fall Program and the Spring Banquet and Meeting (both events are described elsewhere in this newsletter). They assist with tours of the clinical laboratories for freshman and junior medical technology students. Graduating seniors are invited as guests of the Alumni Society to the Spring Banquet and Meeting. Billie Anne Juni spoke at graduation this fall, congratulating the graduates on behalf of all Medical Technology alumni; each graduate received a gift from the Medical Technology Alumni Society.

The current Board of Directors and Officers are:

Billie Anne Herranen Juni, President
Sarah (Salli) Hastings Clysdale, Vice President
Eileen Leipus Rogers, Secretary/Treasurer
Karen Munson Ringsrud, Past President
Mary Ellen Anderson
Nancy Coley
Jane Dunham, Student Representative

Becky Green, Membership Chair
Dolores Gullickson Harvey
Fran Horowitz
Karen Soderberg Kami, Ex-Officio
Karen Wrabek Kok
Monica Lee Rosin
Paula J. Sanders, MAA Representative

LET’S TAKE A TRIP DOWN MEMORY LANE

How many of you remember the wagon that was used to haul “used” media from the bacteriology lab in TCH (temporary court of hospital - located where the chapel now stands) over to Millard Hall to be autoclaved? It was a two-student job--one to pull the wagon and the other to keep the plates from sliding off! Do you remember Mrs. Gage, the media maker, who loaded the wagon with flasks of media to take back and pour into plates--and remember that if it was a nice day you made a side trip to the Harvard Drug for a “Coke”? We still have the wagon and use it regularly for transport in the teaching labs!

We all have pleasant and interesting memories of our student days. If you have some fond memories of your student experience that would be of interest to our alumni, jot down your story and send it to us for possible inclusion in next year’s Tech’s Talk.
U OF MINNESOTA RECEIVES HIGH MARKS
IN NAACLS/CAHEA ACCREDITATION

Following over a year of preparation, including the compilation of a 232 page self-study document and a
two-day site visit by accreditation officials, the University of Minnesota was awarded five years of
continued program accreditation with the National Accrediting Agency for Clinical Laboratory
Sciences/Committee on Allied Health Education and Accreditation of the American Medical Association.
The University received no criticisms; instead, it was lauded for its excellent faculty and advisors,
teaching materials and its high quality of instruction.

Program accreditation is long and arduous, and requires painstaking attention to detail in responding to
29 areas included within the Essentials of an Accredited Program in Medical Technology. Site surveyors
met with faculty, students and University officials, visited the teaching laboratories and clinical affiliation
sites and scrutinized records closely. Following this examination, they concluded that ours was an
exemplary program--in fact, one surveyor asked to have a faculty member of her own institution spend
time here learning our ways of teaching. Once again, the "Minnesota model" came to the fore.

U OF M UNDERGRADUATE RESEARCH
OPPORTUNITIES PROGRAM

The University of Minnesota Undergraduate Research Opportunities Program (UROP) is a university-
wide competitive program designed to stimulate faculty/student collaboration in scientific research.
Approximately $750 is provided to each UROP awardee who works approximately 100 hours on a
specified research project. Each applicant for a UROP grant must submit a detailed description of his/her
intended research, together with his/her grade point average and a letter of support from the faculty
advisor. This year, two of these competitive UROP awards were provided to students in Medical
Technology. Phil Korkowski worked with Dr. Henry Balfour on a project titled "Serum
thymidine kinase levels in HIV-infected patients treated with Zidovudine." Deanna Heil worked with
Professor Helen Hallgren; the title of her project was "Expression of the gamma-delta form of the T
cell antigen receptor in advanced age."

LYNETTE GROUSE PRESIDENT OF COGS

Lynette Grouse, a 1978 graduate of the Medical Technology program, recently served as President of the
University of Minnesota Council of Graduate Students. The Council consists of representatives from
each of the graduate programs at the University, and serves as an advocate for graduate student
concerns. During her tenure as President, Lynette worked closely with Robert Holt, Dean of the
Graduate School, on issues ranging from the tax status of graduate student stipends to better health care
provisions for graduate students. In recognition of her service, Lynette received the President's Award
for outstanding student leadership. Lynette is currently a student in the Pathobiology doctoral program,
working with Dr. James White on a biochemical and ultrastructural study of platelet membrane
modulation. She expects to receive her Ph.D. degree by the end of this year.

Answers to Puzzle:
1. militarism
2. infection
3. fermentation
4. protectionism
5. commendations
6. anarchy
7. adversities
8. enormity
9. degradation
10. excretion
WHAT EVER HAPPENED TO.....???

In a departure from our usual format for this section, we would like to ask your help in locating some of our alumni. Listed below are names and graduation dates of alumni with whom we have lost contact in the last year. If you know any of these individuals, or any other alum who is not receiving Tech’s Talk, and can supply us with a current address, please call or write to Lillian Sarkinen (address and phone number of the Medical Technology office are listed on the front page). Thank you for your assistance.

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Graduation</th>
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<tbody>
<tr>
<td>Melissa Love Martindale</td>
<td>1983</td>
</tr>
<tr>
<td>Laura A. Wolf</td>
<td>1977</td>
</tr>
<tr>
<td>Marilyn B. Hawkinson-Hickey</td>
<td>1976</td>
</tr>
<tr>
<td>Mary H. Rung</td>
<td>1976</td>
</tr>
<tr>
<td>Barbara J. Pence</td>
<td>1976</td>
</tr>
<tr>
<td>Bonnie L. Elder</td>
<td>1976</td>
</tr>
<tr>
<td>Judy A. Parham Olein</td>
<td>1972</td>
</tr>
<tr>
<td>Darwin D. Olson</td>
<td>1972</td>
</tr>
<tr>
<td>Grace A. Byers</td>
<td>1969</td>
</tr>
<tr>
<td>Andrea M. Durand Girtz</td>
<td>1969</td>
</tr>
<tr>
<td>Joanne S. Sinaiko</td>
<td>1968</td>
</tr>
<tr>
<td>Betty J. Shaw Olson</td>
<td>1967</td>
</tr>
<tr>
<td>Virginia Dahlberg Dronen</td>
<td>1963</td>
</tr>
<tr>
<td>Phyllis Horovitz Hoffman</td>
<td>1960</td>
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<tr>
<td>Delores Wynnemer</td>
<td>1955</td>
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<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Graduation</th>
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<tbody>
<tr>
<td>Vardis M. Webster Overshiner</td>
<td>1950</td>
</tr>
<tr>
<td>Julia Glavin Waller</td>
<td>1948</td>
</tr>
<tr>
<td>Betty J. Berry Tesar</td>
<td>1947</td>
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<tr>
<td>Lois M. Schwarz</td>
<td>1946</td>
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<tr>
<td>Mary E. Johnston Herman</td>
<td>1945</td>
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<td>Kathryn Stokes Couple</td>
<td>1943</td>
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<td>Natalie Bussey Jones</td>
<td>1942</td>
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<tr>
<td>Margaret M. McCabe Gartland</td>
<td>1942</td>
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<tr>
<td>M.M. Peterson</td>
<td>1939</td>
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<tr>
<td>Frances J. Fletcher Moore</td>
<td>1938</td>
</tr>
<tr>
<td>Alice Bardwell Caso</td>
<td>1934</td>
</tr>
<tr>
<td>Eleanor G. Ringblood Swenson</td>
<td>1931</td>
</tr>
<tr>
<td>Madeline Rice Lynch</td>
<td>1930</td>
</tr>
<tr>
<td>Marjorie Edsten</td>
<td>1927</td>
</tr>
<tr>
<td>Joseph McGrath</td>
<td>1927</td>
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CLASS OF 1989 DONATES BANNER

For the past two years, the Medical Technology senior class has presented a class gift to be used in some area of the University. The 1989 graduates in Medical Technology elected to donate a banner to the Division as their class gift. The students who designed the banner were Lori Barth, Becky Green, Deanna Heil and Linda Johnson.

Two of the more identifiable skills of a medical technologist are illustrated on this banner, which is three feet by five feet. It features the medical staff in front of an "M", a microscope and a flask; the predominant colors are maroon, gold and white.

The banner was first displayed at the 1989 graduation ceremony held in November. It has also been used at alumni functions and for recruitment activities.

We thank the Class of 1989 for their gift that will be valued for many years.
DR. CAROL WELLS INVITED TO GIVE ANTONIE VAN LEEUWENHOEK LECTURE

At the invitation of Professor Dirk van der Waaij and the Netherlands Society for Microbiology, Dr. Carol Wells (microbiology) traveled to Utrecht, the Netherlands to deliver the Antonie van Leeuwenhoek Lecture at the Society's annual meeting last November. It was a particular honor to receive the invitation since the Netherlands Society for Microbiology invites a foreign guest to deliver this prestigious address only once every three years. The title of Carol's address was "The relationship between intestinal microecology and the translocation of intestinal bacteria."

Carol was also invited by Dr. van der Waaij, a pioneer in the field of defining the mechanisms by which intestinal flora are stabilized and who coined the term "colonization resistance," to visit his laboratory and staff in Groningen. There, Carol delivered a lecture to the attending staff and surgeons titled, "The route and mechanisms involved in the translocation of intestinal bacteria."

Congratulations, Carol! This is another first for a medical technologist and the Division of Medical Technology.

THANKS TO OUR CLINICAL AFFILIATES

Through this Newsletter, we wish to publicly thank the many technologists who have taught and supervised Medical Technology students in clinical rotations at the University of Minnesota Hospital and Clinic, Veterans Administration Medical Center, and St. Paul Regional Red Cross Blood Center. Seniors spend three quarters (30 weeks) in preclinical coursework at the University; they are then assigned to the laboratories of the above institutions for 20-23 weeks of clinical rotations.

While in the laboratories, clinical staff and supervisors help these students gain real-world laboratory experience. Clinical instructors have developed learning objectives, criteria for successful lab performance, examinations, and remedial exercises; often they have completed these activities on their own time. Unfailingly, we have been impressed by their expertise, enthusiasm, and patience. Clinical faculty members have also been fine role models for young professionals.

The following individuals have been instrumental in guiding our students through their clinical experiences at affiliate institutions. We apologize for any error of omission that might have occurred in compiling the list. Thanks to:

<table>
<thead>
<tr>
<th>Rosemary Anderson</th>
<th>Kathleen Hansen</th>
<th>Karen Meyer</th>
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<tbody>
<tr>
<td>Roger Barrett</td>
<td>Mavis Hawkinson</td>
<td>Judy Morishita</td>
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<tr>
<td>Mayra Basiri</td>
<td>Rosemary Hiland</td>
<td>Pat Murphy</td>
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<tr>
<td>Mary Berry</td>
<td>B. J. Hockinson</td>
<td>Clareysse Nelson</td>
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<td>Crystal Blöcher</td>
<td>Pat Hutner</td>
<td>Jackie Nelson</td>
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<tr>
<td>Barbara Bruhn-Ding</td>
<td>Julie Jacobs</td>
<td>Debbie Notto</td>
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<tr>
<td>Cathy Carollo-Neumann</td>
<td>Anne Kaldun</td>
<td>Marsha Olson</td>
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<tr>
<td>Linda Carroll</td>
<td>Val Kallas</td>
<td>Ruth Orth</td>
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<tr>
<td>Deborah Crane</td>
<td>Diane Keiser</td>
<td>Barb Partanen</td>
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<tr>
<td>Sandra Dale</td>
<td>William Kline</td>
<td>Marcy Pope</td>
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<td>Cindy Dass</td>
<td>Joan Kolbow</td>
<td>Kathy Rahkola</td>
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<td>Gerald Davies</td>
<td>Pat Larson</td>
<td>Mary Ramey</td>
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<td>Joy Dean</td>
<td>Brian Lauber</td>
<td>Janice Richardson</td>
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<td>Cynthia Dirksen</td>
<td>Cathie Leundecker Foster</td>
<td>Mary Rosvold</td>
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<td>Cynthia Elstad</td>
<td>Karin Libby</td>
<td>Greg Ryndres</td>
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<td>Patricia Fryholm</td>
<td>Janet Lorenz</td>
<td>Gretchen Saecker</td>
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<td>Margaret Gabrik</td>
<td>Rosemarie Lose</td>
<td>Joanne Samuelson</td>
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<td>Mary Gaughan</td>
<td>Marnie Loven-Bell</td>
<td>Robert Sastamoinen</td>
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<td>Jayne Gillen</td>
<td>Heidi Ludwig</td>
<td>Mary Sastry</td>
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<td>Michele Hajek</td>
<td>Bonnie McCollam</td>
<td>Mary Schmalz</td>
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<td>Sylvia Hakala</td>
<td>Kerri McHale</td>
<td>Barb Schmidt</td>
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<td>Ella Spanjers</td>
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<td>Vera Stahl</td>
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<td>Cheryl Stakson</td>
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<td>JoAnn Tuman</td>
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<td>Lynnette Vannelli</td>
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<td>Arlene Wallace</td>
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<td>Phyllis Weiss</td>
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<td>Pat Wells</td>
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<td>Linda Wessels</td>
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<td>Tony Williams</td>
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<td></td>
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<td>Bob Wojcicki</td>
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<td></td>
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<td>Nancy Young Dixon</td>
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</table>
LET'S KEEP IN TOUCH

Have you often wondered whatever happened to the classmates you haven't seen since graduation? Once again, there will be a display at this year's Medical Technology Alumni Society Annual Banquet which will give you the opportunity to find out what they are doing.

Last year, the "Let's Keep in Touch" display was a big success and was enjoyed by all. Please help us continue this tradition by contributing some personal information about your life since graduation. (Even if you sent information last year, please contribute again this year—we'd like to hear from you again.) Submitted information will be displayed at the banquet. Whether you attend the banquet or not, we would like to hear from you.

It is not necessary to limit the information you submit to that requested on the form. Letters and especially pictures would be greatly appreciated, and the pictures will be returned if you wish. Otherwise, we will place the photos in your student file. Yes, we still keep a file of each of our graduates!

<table>
<thead>
<tr>
<th>Name</th>
<th>Year of Graduation</th>
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<tr>
<td>Address</td>
<td>Career Info</td>
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<td>Family Info</td>
<td>Special Interests</td>
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Please mail to: Medical Technology Alumni Society
100 Morrill Hall
100 Church Street S.E.
Minneapolis, MN  55455
This year's Annual Banquet will be held at the Woman's Club of Minneapolis, a lovely setting noted for its exceptional cuisine.

Date: Tuesday, May 15, 1990
Social Hour (with cash bar) 5:30 p.m.
Dinner with program to follow 6:45 p.m.

Place: Woman's Club of Minneapolis
410 Oak Grove
Minneapolis, MN 55403

Please note: Parking is complimentary at this Club

Menu: Boneless Breast of Chicken with Champagne Sauce
or
Roasted Prime Ribs of Beef au Jus
Dinner includes: Woman's Club Salad
Baked Potato with Sour Cream
Broccoli Parmesan
Lemon Supreme

Cost: M.A.A. or MSMT Members $21.50
Nonmembers $23.50
(Gratuity and tax are included in price)

Program: "Why Med Tech?"
Helen Hallgren, a member of the 1965 class, will speak. She is an associate professor within the Division of Medical Technology and is internationally known for her research on the immunology of aging. She is also one of four in her extended family who holds a medical technology degree; her talk will focus on choosing this profession--then and now.

Special recognition will be given to the classes of 1965 (25 years); 1940 (50 years); and to the 68th graduating class of 1990.

Deadline for reservations: May 4, 1990. Send your reservations in early as seating is limited.

Please reserve ______ places for me at the Medical Technology Alumni Dinner.

I enclose $________ as payment. Chicken____  Beef____

Please reserve ______ seats for me at the 1940 table.

Please reserve ______ seats for me at the 1965 table.

Name (please print) ___________________________ Class _______ M.A.A. # ________

Mail by May 4, 1990, to: Medical Technology Alumni Society
100 Morrill Hall
100 Church Street S.E.
Minneapolis, MN 55455
As regular readers of this publication are aware, the Division has been publishing this newsletter annually since 1947. We try to inform you of recent happenings within the Division and the Department, current trends in the profession, and to serve as a vehicle for alumni news. However, we would really like to know what the readers would like to see in future issues. Would you like more features about individual alums, more about the University as a whole, news from ASMT or MSMT, less of anything? We would greatly appreciate your feedback on recent issues, and suggestions for future articles. Tech's Talk is really for you, and we need your input.

If you have any comments, or ideas for future issues, please fill out the section below and return it to:

Editor of Tech's Talk
Division of Medical Technology
Box 198 UMHC
University of Minnesota
420 Delaware St. S.E.
Minneapolis, MN 55455

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