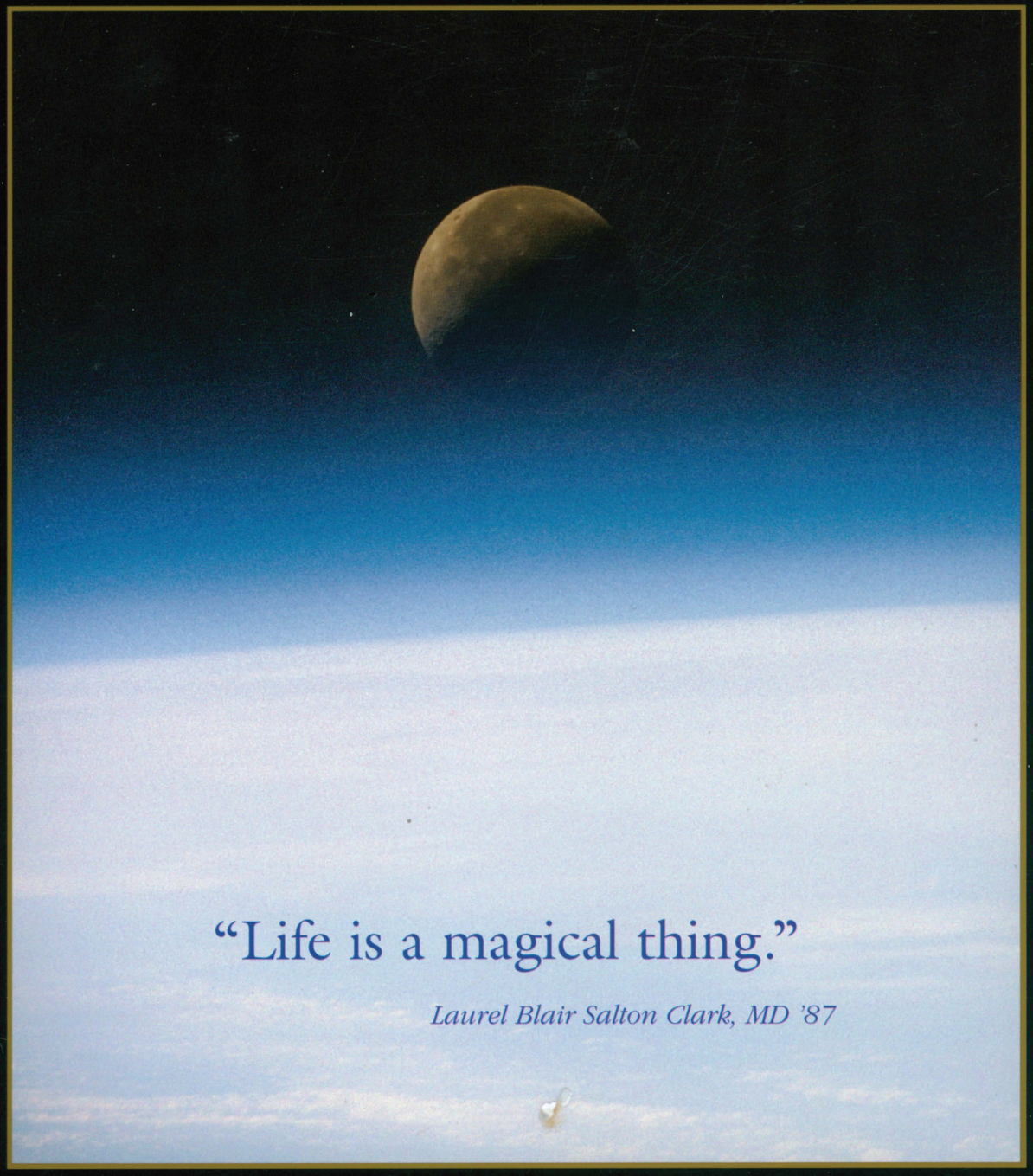
The Magazine for University of Wisconsin Medical School Alumni and Friends

QUARTERLY



"Life is a magical thing."

Laurel Blair Salton Clark, MD '87

VOLUME 5
NUMBER 2
SPRING 2003

QUARTERLY

The Magazine for
University of Wisconsin Medical School
Alumni and Friends

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***Quarterly* is published four times a year by the Wisconsin Medical Alumni Association and the University of Wisconsin Medical School.**

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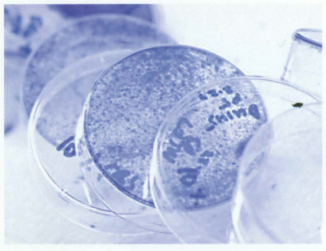
Spring 2003
Volume 5 Number 2

Photo: NASA



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Laurel Clark, MD '87, and her crewmates shared spectacular views from their Space Shuttle Columbia windows, including this one of the moon and Earth's horizon. The digital image, courtesy of NASA, was taken on January 26, 2003.

■ Dean's Message

Philip Farrell, MD, PhD
UW Medical School Dean
UW-Madison Vice Chancellor for Medical Affairs

Like the rest of the nation, University of Wisconsin Medical School alumni and friends have been mourning the tragic loss of Laurel Blair Salton Clark, MD '87, and the six other astronauts who died in the Space Shuttle Columbia disaster of February 1, 2003.

We paid special tribute to Laurel at the winter meeting of the Wisconsin Medical Alumni Association (WMAA) in Milwaukee on February 27, 2003, when we also announced that we will be memorializing her in two special ways. One will be a medical student scholarship in her name. Another will be a dedicated room in the new Health Sciences Learning Center honoring her memory as a physician, researcher and astronaut.

In all kinds of media reports over the past few months, we have learned about Laurel's many accomplishments since graduating from UW Medical School, and all the leadership qualities that made her a natural candidate for the highly competitive, elite National Space and Aeronautics Administration astronaut program. She was adventurous, determined, courageous and organized.

Yet, as you will read in the cover story of this *Quarterly,* Laurel's classmates loved her for other qualities as well. Some might seem ordinary, but they are no less admirable. Members of the Class of 1987 call our attention to attributes that she displayed during medical school and throughout her life. They tell us that Laurel was fun and deeply interested in nature and animals, that she was an extremely thoughtful and caring friend, and that she loved her family life and adored her son.

Throughout her remarkable career, Laurel fondly remembered her time at UW Medical School and UW-Madison; she was an involved member of the WMAA. Laurel clearly demonstrated her loyalty when she took into orbit two Medical School medallions specially commissioned for her space voyage. She also carried a small red and white Badger pennant and a Badger Teddy bear.

Paul Ebling, MD, of the Class of 1955, who also is featured in this issue of the *Quarterly,* is another exceptional alumnus who also felt great loyalty to his medical school. Knowing of Paul's devotion, his surviving family members donated part of the Ebling estate to support what will be a spectacular library in the new Health Sciences Learning Center. Thanks to this generous gift in excess of $3 million, we will name the library in honor of Paul Ebling and his family.

We are beginning to recognize, in fact, that loyalty is a noteworthy trait found in many UW Medical School students and alumni. That is what the Liaison Committee on Medical Education (LCME) highlighted in a preliminary report that it recently sent us. LCME, which evaluated the school for continuing accreditation during a site visit last fall, noted that one of our many institutional strengths was that students demonstrate strong loyalty to the school and that they exhibit significant satisfaction with the institution and its educational programs. I believe that this strong feeling of allegiance is uncommon, if not unique, among U.S. medical students in general. Our students' loyalty says a great deal about the experience we provide them.

In the next issue of the magazine, we will be able to tell you more about the LCME once we receive the final version of their report. In the meantime, I'm very pleased to tell you that the initial LCME report indicates that we passed the intensive review with flying colors. This does not mean that there aren't areas that will require additional work on our part. We will never be perfect, but we will continue to try our hardest to achieve that goal.

■ WMAA President's Message

Christopher Larson, MD '75
WMAA President

The Health Science Learning Center (HSLC), well on its way to becoming a reality, is the result of the vision, cooperative efforts and dedication of individuals and organizations that pushed for its success. As WMAA president, I am proud of the role we have played in supporting this project. I am also proud that Alumni Hall, which will be a state-of-the-art interactive lecture hall, is paid for. Our close work with students, our participation as a sounding board for their needs and the school's goals, and our communication with alumni have made raising the necessary capital for Alumni Hall a relatively easy task.

I now am looking beyond this early success toward other opportunities to enhance our relationship with students and faculty. Room-naming opportunities offer individuals, small groups and classes a chance to contribute to break-out rooms within the HSLC's five Learning Communities. This is an unusual opportunity to clearly identify with the facility that has brought so many like-minded alumni together in its support. I am working with class representatives to sponsor a classroom, a large or small study room or the student lounge.

I am happy to report that at the Winter Event in Milwaukee Dr. John Harting, chair of the Department of Anatomy, was named the first recipient of our new Distinguished Professorship. This WMAA-sponsored award honors an individual who has shown a high level of achievement, commitment and leadership over an entire educational career. We were very pleased to acknowledge John, who is known to be a stimulating, engaging and innovative teacher, with this award. He will receive a stipend to further his teaching career. The award is the result of increased communication between alumni and students, and it is a big step toward connecting with students in educational areas while fostering scholarly excellence.

A medical student's first impression of the WMAA is important, as is the continuing sense of support we bring with sponsored activities. The White Coat Investiture Ceremony is one such event. The ceremony symbolizes first-year students' first step into the medical field. This past fall, your WMAA welcomed the Class of 2006, acquainted them with alumni-sponsored activities and presented them with gifts. A white coat was presented with the co-sponsoring State Medical Society of Wisconsin.

A student's sense of a future career after medical school comes from many sources. Mentoring within school classes and clinical rotations can provide needed guidance. This year's mentor, Sandra Osborn, MD '66, has the program off to a grand start. Impressing all with her dedication, she was present at every anatomy class session the first semester. Students have expressed appreciation for Sandra's daily participation and her willingness to be so much a part of their learning experience, contributing clinical insights whenever possible.

Another supportive activity is the WMAA Host Program, which enables students to connect with alumni in geographical areas where they plan to do their residencies. Students list their interests and are matched with a physician in a corresponding specialty area. We continually seek new alumni to add to the list of willing hosts throughout the year. If you are interested in serving in this capacity, please contact the WMAA office at (608) 263-4915 or sign on via our Web site: www.med.wisc.edu/Alumni. Just click on "Volunteer Opportunities."

I look forward to working with the membership on these programs and to developing new initiatives that maintain the important strong bond between students and alumni.

Photo: NASA

A tribute to

Laurel Blair Salton Clark

MD '87

At the Neutral Bouyancy Laboratory near the Johnson Space Center, Clark floated in a small raft during an emergency egress training session.

Photo: NASA

Clark participated in a high-fidelity mission trainer at the Space Vehicle Mockup Facility near Johnson Space Center.

Photo: NASA

In this *Quarterly* cover story, we had intended to chronicle the historic, triumphant journey of University of Wisconsin Medical School alumna Laurel Blair Salton Clark, MD '87, on National Aeronautics and Space Administration (NASA) Space Shuttle Columbia mission STS-107. But as most of the world so vividly and painfully knows, that story cannot be told.

We had been following Clark with great interest since 1997, when she was one year into her long and intense NASA evaluation and training program. Our initial story on her progress appeared in the winter 1999 *Quarterly*. Two years later, we were excited to learn that Clark had been chosen to fly on STS-107, a 16-day mission devoted to science. When NASA announced that STS-107 might launch last summer (launching was postponed several times before it finally occurred January 16, 2003), we were ready to follow through with an in-depth account of the flight, highlighting Clark's experiences on it.

During a trip to Houston last spring, I arranged to meet with Clark at the sprawling Johnson Space Center for an in-person interview. Graciously taking time from her extremely busy schedule, she was eager to help me tell UW Medical School alumni and friends—and the public at large—what her important and exciting work was all about. She met me in a borrowed office late in the afternoon, dressed in colorful, casual clothes, her curly dark hair still wet from the evacuation exercises she and her future crewmates had just completed in a nearby pool. She left her overdue, boxed lunch untouched, preferring instead to give me a stream of details on the coming mission and her life before, during and after her four years at UW Medical School.

Laurel will never talk with us directly again, but the words she spoke in the past are ours to keep forever. Some of the thoughts and feelings she expressed in the interview we had at NASA on April 26, 2002, appear below.

- Dian Land, editor

■■■

"I've ended up doing a lot of things in my life I never really envisioned. When I was 10, I never saw myself as a doctor, and certainly not as an astronaut. When I saw the moon landing, I never thought it was something that would be possible for me."

■■■

"I did medicine for almost 15 years in the military before NASA.... In a circuitous way, the Navy led me to meet some people who knew about NASA. I learned that the qualifications to become an astronaut were reasonable. I had nothing to lose by asking the questions."

■■■

"Theoretically, the military could ask [me] to come back, but we're national assets, and [the Navy] recognized that when they let us come here...."

■■■

"I probably started out fairly fearless to begin with, to some degree. I don't think there's anything magical in my life that made me that way, though. My son... has never been scared of anything in his life. I really don't think the concept is in his mind."

The crew of Space Shuttle Columbia witnessed this sunrise over planet Earth.

Photo: NASA

■■■

"Each of us [astronauts] is allowed to fill a small capsule with mementos that are stored underneath the panels during the flight. I chose to include something from the university and the medical school. They both mean a lot to me. I had eight wonderful years there. I probably wouldn't have left if I had figured out a way to stay. I loved Madison. I thought it was a wonderful school. It was a great growing place for me, both socially and academically. I just wanted to give something back."

■■■

"When I was a UW Medical School student sitting in Bardeen 140, I never imagined this is where I would be. One thing that's been particularly difficult for me is that I've had a hard time pinning down and limiting myself to any particular thing. When I was in college [UW-Madison], I liked psychology, biology, veterinary medicine, biological research, medicine.... I didn't decide on medicine until my junior year. When I got into med school it was the same thing. I liked a lot of different things, and it was hard for me to pick just one. I liked orthopedics, ophthalmology, pediatrics, obstetrics and gynecology, emergency medicine."

■■■

"There's no ignoring the fact that it [being an astronaut] is dangerous business, but then on the other hand, we do everything we can to minimize danger.... People are very safety-conscious, very conservative.... I like doing what I do enough that the risk is worth it."

■■■

"In Scotland, I worked 12-hour days, but I didn't have a family. Now with a family, I feel that it brings you away from work in a good way.... Because there's life outside work...at least for me there needs to be. On the other hand, it's that much harder, because at the end of the work day, you have a whole other set of challenges—work to do at home."

■■■

"I knew, I figured I would fly [on this mission]. But the majority of the people in my class [of 44 people] have not been selected to fly. I feel very fortunate."

■■■

"Our crew is very junior. Between the seven of us, we have a history of three flights. We don't have a lot of experience, but we have a lot of enthusiasm. I'm glad I'm not the only person who hasn't flown before."

■■■

We'll be going into low earth orbit [170 miles up], doing all kinds of materials science, earth observations, life sciences (human and fundamental biology), physiology, combustion sciences, protein crystal growth... bone cells, various kinds of bacteria."

■■■

"We will do multiple blood draws on each other, and tracer infusions. Six of us will be trained to do blood draws. Four of us are guinea pigs for the physiology and biology experiments.... NASA scientists are very happy there will two women aboard this flight, from a human physiology standpoint.... It's not that rare to have two women going up. About 20 percent to 25 percent of the corps [of astronauts] are women."

■■■

"I think this flight will be pushing technology and science forward for us all. The flight is about all of us, about life on Earth, about making it better."

Friday, Jan 31, 2003

During the flight, Clark worked in the Research Double Module in Columbia's cargo bay.

Photo: NASA

Dear family and friends,

Hello from above our magnificent planet Earth. The perspective is truly awe-inspiring. This is a terrific mission and we are very busy doing science round the clock. Just getting a moment to type email is precious so this will be short, and distributed to many who I know and love.

I have seen some incredible sights: visible horizon with the city glow of Australia below, the crescent moon setting over the limb of the Earth, the vast plains of Africa and the dunes of Cape Horn, rivers breaking through tall mountain passes, the scars of humanity, the continuous line of life extending from North America, through Central America and into South America. Mount Fuji looks like a small bump from up here, but it does stand out as a very distinct landmark. Magically, the very first day we flew over Lake Michigan and I saw Wind Point (Racine, WI) clearly. Haven't been so lucky since. Every orbit we go over a slightly different part of the Earth.

Of course, much of the time I'm working back in Spacelab and don't see any of it. Whenever I do get to look out, it is glorious. Even the stars have a special brightness. I have seen my "friend" Orion several times. Taking photos of the earth is a real challenge, but a steep learning curve. I think I have finally gotten sharp focus....

I feel blessed to be here representing our country and carrying out the research of scientists around the world. All of the experiments have accomplished most of their goals despite the inevitable hiccups that occur when such a complicated undertaking is undertaken. Some experiments have even done extra science.

Clark used a computer on the aft flight deck of the Space Shuttle Columbia.

Photo: NASA

Thanks to many of you who have supported me and my adventures throughout the years. This was definitely one to beat all. I hope you could feel the positive energy that I beamed to the whole planet....

Love to all,

Laurel

At the Madison gathering in the home of Selma and Dan Van Eyck, members of the Class of 1987 shared their sorrow and shock over Clark's death. They ended their celebration of her life with a toast of peach wine, one of their old friend's favorites.

Classmates remember their lost friend

by Dian Land

Nearly one quarter of the University of Wisconsin Medical School Class of 1987 came to Madison a week after the Space Shuttle Columbia catastrophe to share their sorrow and shock, and to remember and mourn their lost classmate, Laurel Blair Salton Clark. Almost spontaneously, they assembled at the home of Selma Van Eyck, an assistant dean who began developing lasting friendships with many members of the class when she and they simultaneously arrived at the Medical Science Center nearly two decades ago, and her husband, Dan.

People had traveled from as far away as England, Alaska and New York, and from all over Wisconsin, to various memorials for Clark. Some had gone to the private service held in Houston earlier in the week and some had attended the city-wide commemorative held days before in Racine, Wisconsin, which Clark called her hometown. Like the rest of the nation, they joined in an outpouring of collective grief that surrounded the tragedy, but the intimate gathering in Madison for the woman who was their friend surely was the most comforting.

"Our class felt the need to gather because Laurel was a crucial part of the most formative years of our adult lives," says Matthew Solberg, MD '87, class representative. "We gathered together because when Columbia broke apart over Texas, part of each of us was lost with it. We gathered as we did after every test, at the Copper Grid or the University Tap, to commiserate and to celebrate. We gathered because we needed each other just as we had many years earlier, and because none of us could understand this alone."

During the emotional evening, classmates wept, laughed and embraced. They watched a videotape of the Houston memorial that Clark's family and NASA friends had organized. They listened while Solberg, Mark Hallett and Marci Thiel sang "Every Season," composed by Nichole Nordeman, which they also had sung at the Houston service.

The classmates shared their thoughts about Clark's life and death, including their favorite memories (see some below). They thumbed through old photo albums and watched slides taken during their medical school days, flashing back to what most said were some of the best days of their lives. And Clark had been a large part of it for many of them. The classmates' celebration of her life ended with a toast of peach wine, one of their old friend's favorite.

Following are some of the comments classmates made about Clark. Most of the comments were recorded at the Madison gathering, while others were sent via email.

■■■

"This weekend I know you'll be reflecting, smiling, crying and laughing about Laurel. Not Laurel the astronaut. Laurel the person, Laurel the friend.... I once read that the finality of death is an important reminder of the potential of life. Human bonds are another one. As you gather to reflect on life's potential and share those human bonds, I'm sorry I won't be there with you. The world that looked so small to Laurel from her

vantage point in orbit feels enormous to me now. Please know that if I were in the same hemisphere, I'd find a way to appear...."

John Andrews (from New Zealand). He lives in Auckland, where he is a consultant pediatrician at Starship Children's Hospital. He also works with Te Puaruruhau, a multidisciplinary child abuse team.

■■■

"We were roommates for three-and-one-half years, from first year in the medical school until we were interviewing for residencies. Laurel was a great roommate. We were totally different—she was organized and neat, ate healthy food and exercised, and I was none of those things. She was so accepting of other people. I'd leave piles of things all over and she'd quietly do the dishes. I'd rant and rave about something and she'd listen and let me have her shoulder to cry on. All this week, a thousand memories of her, tiny little details, have come back to me, things I haven't thought about for years. For instance, she'd love to eat rice with croutons and Parmesan cheese. And during class breaks, she'd buy tons of greeting cards just to give to people for no reason, to say I'm thinking of you, I love you. She was a loyal friend; she'd do anything for you. She taught me a lot about what a good friend is."

Beth Bartos currently practices in Lake Placid, New York, in a group of five family physicians.

Last summer, Matt Solberg and Clark met for a jazz concert at Cathedral Square Park in Milwaukee. "I picked her up in a '68 Mustang convertible on a beautiful summer evening. We cruised downtown and had a picnic dinner at the park," he recalls.

Our class felt the need to gather because Laurel was a crucial part of the most formative years of our adult lives.

Matthew Solberg, MD '87

■■■

"We gathered to hear stories of the thoughtful, fun(ny) and loving Laurel whom we all knew. The Laurel who noticed and valued the beautiful tinkling music of the weightless metal D-rings in the orbiter, the brief pink 15-second flash of a sunset, the view of Orion from up there. The one who had a smile of excited contentment in every picture from space. The Laurel who responded to her bagpipe wake-up call on her final morning and brightly thanked Mission Control for the experience and their help, and complimented them for a job well done. You know how you can hear a smile in someone's voice? Laurel was true. She wasn't trying to impress anybody, she just was who she was, and because she was good, she was respected for it.... Laurel knew we were so proud of her. I told her that."

Mark Hallet practices family medicine and is the medical director of sports medicine for ThedaCare in Appleton, Wisconsin.

Clark wrote in her journal every night during the trip she and classmate Joan McGrath took to Europe in the summer between their first and second years at UW Medical School.

■■■

"Laurel and I went to Europe for two months [during medical school]. We shared a lot of good times there. We were there for eight weeks. Laurel really organized the trip. Imagine that. Every day she had an itinerary for us, which we weren't allowed to go off. Every night she wrote in her journal. And I always wondered, "Why is she doing that?" because I never did. A couple weeks after we got back, she gave me this picture of us together

Laurel was generous with her hugs and support, as Mary Woodhouse (left) and many other friends recall.

in Germany. All around the outside of picture she wrote words and phrases from every place we had gone. Little memories, things we had seen that only I would understand. That's part of what she had been doing when she wrote in her journal every night. She signed the picture "Love, Laurel" with her little smile, and it's still one of my best memories of Laurel as a friend.... I know she didn't change at all, even though she went on to do all those great things. Everybody from every aspect of her life will miss her."

Joan McGrath is an anesthesiologist with Davis Duehr Dean in Madison.

■■■

"I saw Laurel only a couple times after med school, but I'll remember her as one of the kindest people in a class of remarkably kind people. My last recollection of her was signing NASA portraits of herself in astronaut gear for our kids at the last class reunion. She was so excited about the space program. I marveled that one of us had actually become what was once the dream of just about every kid of our generation. The headline in our newspaper said, 'She was always smiling.' That's what I remember too. Even on crutches after she tore her ACL in a Med I game of touch football, she managed to be positive."

Steve Lagman is an anesthesiologist at Madison Anesthesiology Consultants, a group based at Meriter Hospital.

■■■

"Laurel was smart, beautiful, funny, but most of all caring. She touched people's lives through opening up her home, sending countless notes and cards for any occasion, helping people study and mostly lending an ear to listen and a shoulder to lean on. You could not be part of this class and not know who Laurel Blair was. Laurel's legacy to us is to live life to the fullest and appreciate and take notice of everything, share it with others and do it with a smile. Laurel took nothing for granted and she truly loved life. One of her quotes from the Columbia paints a perfect picture: 'Life continues in lots of places and life is a magical thing.' We will definitely miss her magic."

Pediatrician Matthew Solberg works for Advanced Healthcare in Wauwautosa, Wisconsin

■■■

"Laurel was the kind of friend that you always hope you can be to others. She loved you without reservation, and time spent with her was always a joy.... Laurel had determination. She, Deb Wanta Lessmeier and I went backpacking several years ago prior to her marriage, and she managed to develop acute appendicitis in the middle of the night about eight and a half miles into the mountains. Being doctors, we all were sure what the problem was, but there was no way to get her out other than for her to walk out, which she did. Step by painful step she walked the whole way.... Laurel loved life. About two and a half years ago, she and I took our young sons to Disney World for a week, and we had a ball. We rode every ride, played with Winnie the Pooh and did all of the normal things that everyone likes to do with their children. Laurel was not married to her job—she loved life too much for that. She always made time to be Mom and friend. I never think of her as an astronaut, just as Laurel, my wonderful friend. She was the friend who would notice the birds and tell you what kind they

Laurel was the kind of friend that you always hope you can be to others. She loved you without reservation, and time spent with her was always a joy.

Marci Thiel, MD '87

Clark (center, back row) and several other members of the Class of '87 (including Hank Simpson, Deb Lessmeier, Matt Solberg, Dave Hinke and Dave Rohde) went to Mary Woodhouse's 1995 wedding in the Adirondacks. Beth Bartos, also a classmate, took the picture.

Clark chose to take mementoes of UW Medical School on board Space Shuttle Columbia flight STS-107. School officials commissioned two medallions especially for the flight. Clark also took a Badger pennant and Teddy bear.

were, or pluck a flower to tuck behind her ear because it smelled so good. Friends make you rich, and I am poorer indeed now that she is gone."

Marci Thiel lives in High Wycombe, England. She and her husband own Expert-24 Ltd., which specializes in web-based expert knowledge automation.

■■■

"In 1990 I went with my mother to see Laurel in Scotland.... Laurel picked us up at the airport and on the way to where she lived there was a botanical garden that contained 4,000 species of rhododendron. They were all in bloom, and we actually had to see them all! I thought as a surgery intern I could take sleep deprivation, but I actually fell asleep walking. She showed us every flowering rhododendron.... That was Laurel, she just loved nature. She wanted to share it with you—whether you wanted to or not.... When Laurel died, one of the things I thought of immediately was a picture I have from a long time ago. I wanted to show everybody tonight. Because this was the Laurel I needed when she died. This was Laurel in a time when something was bugging me and I'm on her shoulder and she's giving me a big hug. It's in Parfrey's Glen. This, to me, sums up Laurel."

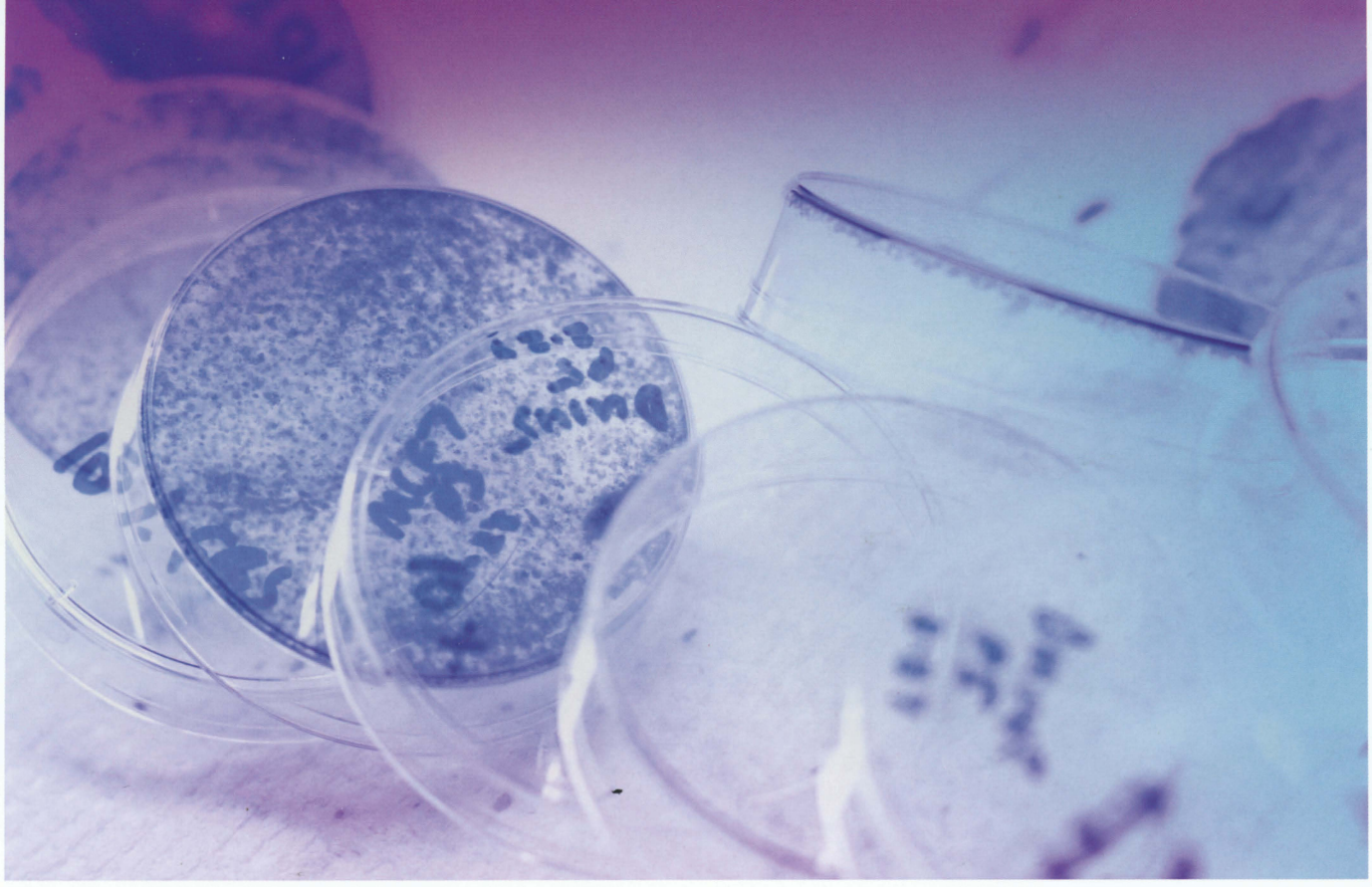
Mary Woodhouse practices general surgery in Saranac Lake, New York, in the Adirondack Park near the "Olympic" village of Lake Placid.

Jeff Miller, UW-Madison University Communications

Honoring an alumna

University of Wisconsin Medical School will honor Laurel Clark, MD '87, in two ways. It is creating a fund in her name to award a scholarship to a medical student, and it will dedicate a room in the new Health Sciences Learning Center to her memory as a physician, researcher and astronaut.

UW-Madison, which Clark attended as an undergraduate, will also set up a fund in her name to award a scholarship to a science student each year. Campus also has offered a full scholarship to Clark's son, should he choose to attend UW-Madison. Shortly after Clark's death, a wreath was placed in front of Bascom Hall in her memory.



In the laboratory of Paul Harari, MD, petri dishes harboring human cancer cells (stained with a purple dye) measure the impact of new molecular drugs on tumor growth.

Hope for a coming era of Cancer Therapy

by Dian Land

There has been minimal public fanfare to date, but over the past several years cancer specialists have noticed a steady crescendo of excitement at professional meetings and in academic journals.

The optimism stems from a new generation of drugs designed to home in on and cripple specific molecules associated with cancer, says Paul Harari, MD, University of Wisconsin Medical School associate professor of human oncology.

The new drugs are a direct outgrowth of molecular discoveries made in the past two decades, a period in which scientists have used the most sophisticated tools of molecular biology to steadily learn more about what goes awry at the most microscopic level to make cells malignant. The defects identified so far relate to genes, proteins and receptors associated with abnormal cell signaling, growth and division. As scientists uncover additional molecular insights with genomic and proteomic technologies, they anticipate finding more cancer-causing defects, Harari says.

Armed with the new, highly selective knowledge, pharmaceutical companies have been racing to "rationally" design drugs aimed like a laser beam to undo or override the defects. Herceptin for metastatic breast cancer and Rituxan for lymphoma were among the first to reach the marketplace, followed by Gleevec for chronic myelogenous leukemia and gastrointestinal stromal tumors. One of the biggest advantages of the new drugs is that, unlike existing treatments, they effectively disable problematic, targeted parts of cells while causing remarkably little collateral damage to neighboring normal cells and tissues.

Harari, a radiation oncologist who has spent much of his time conducting research on several of the molecular drugs in the past five years, cannot conceal his enthusiasm. He and many others

eagerly await the maturation of data from several large, randomized, phase-three clinical trials that may show definitively that the new drugs are significantly better than current treatments for addressing tumors of many kinds. "In recent years there has been a tidal wave of these new molecular drugs that have completed the necessary five to eight years of developmental and pre-clinical testing. They are now cascading into clinical trials," says Harari, adding that many more are just entering the pipeline.

Harari directs one of the pivotal clinical trials now under conclusive assessment, an international study examining the combination of radiation therapy and one of the new drugs in 416 randomized patients with advanced head and neck cancers. Researchers completed patient enrollment last March and now are following up with patients for another year to determine whether survival rates are better than those seen with standard treatments.

The final analysis on Harari's first-of-its-kind study should become available by fall 2003, he says, but some of the clinical responses from the UW arm of the study gave researchers cause for hope in the very early weeks of treatment. "With standard radiation therapy in patients with large tonsil and tongue base tumors, we generally don't see tumor shrinkage for three to four weeks into treatment, but in our study patients who received radiation plus drug treatment, we saw many tumors regressing dramatically in the first week."

The head and neck tumors Harari sees in most of his patients are notorious for being among the most aggressive and debilitating cancers. Resulting from a molecular defect that allows unchecked growth, the tumors have the capability to double in size in a matter of weeks. "These tumors don't give you much time to think," says Harari.

One of the biggest advantages of the new drugs is that, unlike existing treatments, they effectively disable problematic, targeted parts of cells while causing remarkably little collateral damage to neighboring normal cells and tissues.

High-dose radiation therapy is one of the standard treatments; unfortunately, as the radiation destroys tumors, it damages healthy cells as well. The net effect is severe side effects. Patients can temporarily lose their ability to taste food and, sometimes, to speak. Their throats can become so dry and raw that they are unable to swallow; some need feeding tubes. Narcotics are required to dull the pain.

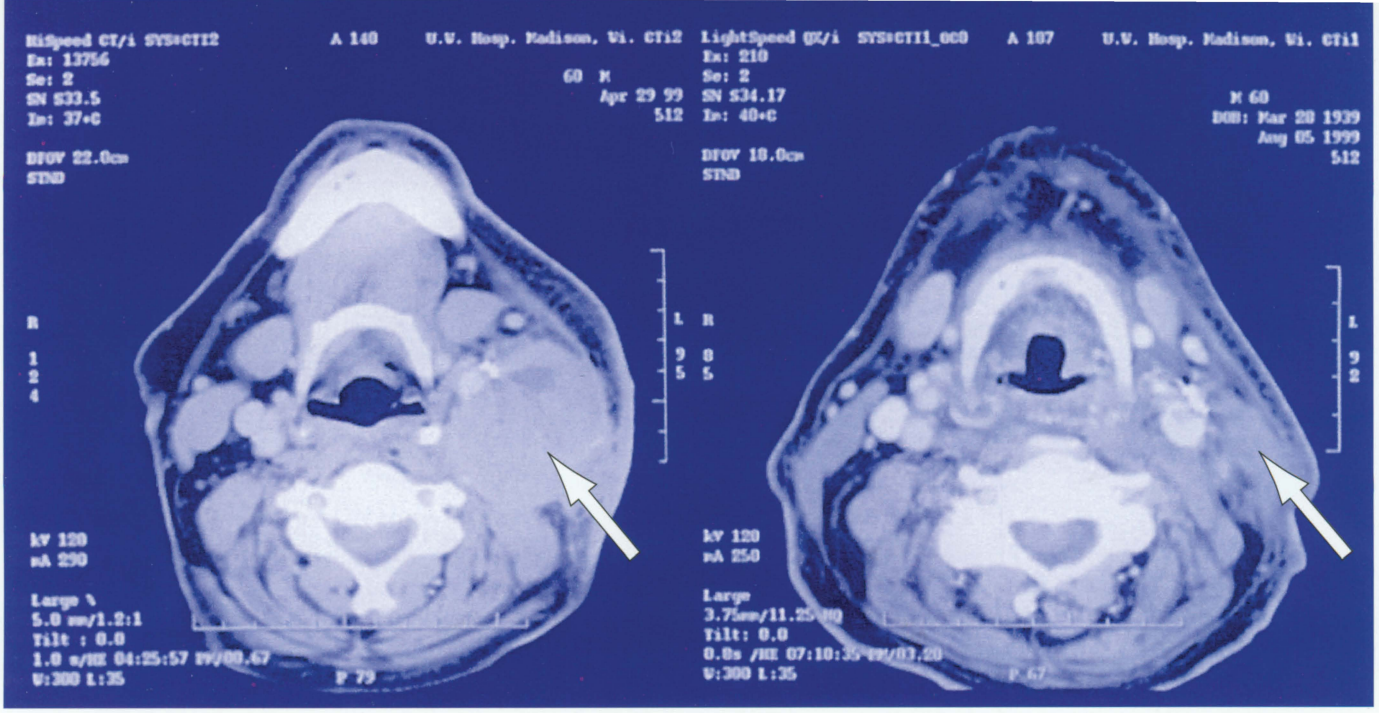
Existing drugs sometimes used to treat head and neck tumors can be equally harsh. "They are general cytotoxic poisons, which means that they indiscriminately attack DNA and kill cells—cancer cells and normal cells," he says. "As with most chemotherapy treatment, the drugs can be extremely debilitating and unpleasant—making patients more susceptible to serious infections, severe nausea and dangerous changes in blood counts."

Harari first thought about combining molecular drugs with radiation, the main weapon in his practice, nearly five years ago when he began to sense the excitement of scientists who reported outcomes of their laboratory experiments involving the drugs alone. He was struck by the ability of some of the drugs to slow cell growth. "We conceptualized that maybe by using these drugs to disable some of the growth pathways that make head and neck tumors so aggressive, we could make the tumors much more susceptible to radiation destruction."

That, in fact, is exactly what the Wisconsin group has shown. Harari has shepherded the concept through a series of successful *in vitro*, animal and phase-one, -two and -three human studies.

Several of the drugs Harari works with—C225 and Iressa, for example—target the epidermal growth factor receptor found in abnormally high amounts on the surface of tumor cells that appear in two-thirds of all cancer patients. The over-

Harari has shepherded his concept of combining molecular drugs with radiation therapy through a series of successful *in vitro*, animal and human studies.



CT scans before and after treatment with C225 plus radiation show complete regression of an 8 centimeter by 7 centimeter squamous cell tumor in the neck (see arrow). The patient is now four years beyond treatment with no evidence of residual cancer.

abundant receptors pull in signals from outside cells, relaying them to proteins inside that carry out the multiple sets of instructions —working wildly to make the cells grow. The aberrant activity can produce tumors of many kinds.

C225 and Iressa work by preventing the receptors from sending signals to grow. Normal cells also contain the same receptors, but on a much smaller scale. But the drugs don't disturb the normal cells because they seek out the mass of receptors upon which the tumors are so reliant.

Harari has made learning specifically how C225 and Iressa work—both in combination with radiation and alone—a priority in his lab. The Wisconsin scientists, now among the leaders in the field, have identified several cellular mechanisms that come into play to make cancer cells highly vulnerable to killing by radiation when growth signals are turned off. The mechanisms relate to tumor cells' decreased capacity to proliferate, and to sustain and repair radiation-induced damage.

Harari and many others believe that molecular drugs have the potential to beneficially impact many of the 600,000 to 700,000 patients who are diagnosed with common epithelial cancers in the United States each year. The side effects of many of the drugs are relatively minimal, he says, noting that skin rashes, fevers and diarrhea are the most common. "If standard chemotherapy is 7, 8 or 9 on a side effects scale of 1 to 10, then many of these new molecular drugs are a 3 or 4," he says.

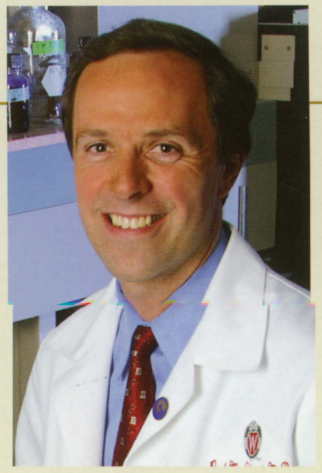
Several hundred new clinical trials currently are under way around the world, testing new molecular drugs in many of the most difficult cancers, including tumors of the brain, pancreas, esophagus and lung. After seeing how well the molecular drugs work on epidermal growth factor and other receptors, clinicians now wonder whether similar success may come from mixing the molecular agents with radiation as well as conventional chemotherapy drugs, Harari says.

"It's possible that administration of molecular drugs will allow us to lower the levels of radiation and chemotherapy we traditionally use so that they're not so toxic," he says. "Another possibility is that we will be able to substantially slow down some of the particularly explosive, fast-growing tumors. Patients then may have the opportunity to adjust to their cancer as more of a chronic disease, living many years longer."

Harari expects that there is a very real possibility that in the next two to five years, an array of molecularly targeted drugs will advance from simply being exceptionally promising and exciting to actually showing in phase-three, randomized clinical trials that they provide a clear advantage over current therapies.

"It's important for cancer patients—and their physicians—to maintain hope that their condition may improve, that they may respond well to treatment and may even be cured, despite difficult odds at times," he says. "As an oncologist and cancer researcher, I'd like to let them know that we are moving steadily closer to achieving these goals. We may be on the threshold of a substantial change in cancer therapy in the near future."

The demanding but rewarding life of one physician-scientist



Paul Harari, MD

When Paul Harari, MD, first decided to give the demanding life of a physician-scientist a try a dozen years ago, he wasn't sure he had made the right decision. "The combination of laboratory research and taking care of patients in the clinic can be very difficult," he says.

Many people are aware of the difficulty of succeeding as a physician-scientist. In the past 15 years, academic journals have featured numerous articles on the challenges of living the dual life, even going so far as to predict the death of the hybrid breed.

"A busy clinician easily can spend 40 to 50 hours a week seeing patients, which leaves little time for much else," says Harari, a University of Wisconsin Medical School associate professor of human oncology. "When you're primarily doing lab experiments or writing grants at night and on weekends, it's hard to compete for funding with full-time researchers who may funnel all their time and energy into research."

Harari had several mentors over the years who told him that he couldn't do both jobs well and that he probably should just pick one or the other. But he chose to follow his heart and the advice of the few rogue advisors who urged him to do exactly what he wanted. He sought out advanced laboratory training that allowed him to function, essentially, as an MD-PhD. And in the past four to five years, in particular, he has felt that his choice has paid off.

"For me, it's a luxury to be a physician-scientist," he says. "I can experience the joys and frustrations of patient care, and I can also bring promising research advances directly from the bench to the bedside. Not many researchers or physicians have this unique opportunity."

He likes the contrasts that both aspects of his academic medicine life provide. "There are times in my life when I think taking care of patients is the most natural thing for me to do—doing everything I can to make them better," he says. "But it can be frustrating at times to have to recommend treatments with surgery and radiation and drugs, which can be so toxic."

Interactions with his cancer patients can be extremely intense and personal, with emotions ranging from elation to devastation depending on the situation. "In a busy clinic, you can feel like a warrior, going from room to room. The ups and downs can change every half hour," he says. "Highs and lows in the laboratory tend to come far more gradually, and thus provide a welcome change of pace in thinking."

Harari says that although he is a clinician at heart, he also loves the discovery process. The first encouraging reports on the new class of drugs that target and block tumor-causing molecules brought him a glimmer of hope. He decided to conduct his own investigations into several of the drugs and the cellular receptor they affect.

The Harari research team gradually accumulated basic knowledge on abnormal epidermal growth factor receptors, which play such an important role in tumor growth, and the way molecular drugs work to shut them down. Five years ago, when the idea that some of the drugs might perform well in combination with radiation occurred to him, Harari ratcheted up his research program. When his team proved that the concept works beautifully, he expanded their efforts even more. Now the Wisconsin research group garners attention from around the world.

The laboratory currently consists of eight members, including UW medical students, MD-PhD students, other graduate students and physician-scientists who have come from abroad to work in the lab for several years.

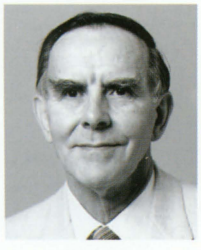
"Some of the best and brightest young medical students seek out programs like UW's Medical Scientist Training Program to develop their clinical and laboratory skills," says Harari. "The program is a natural mechanism to nurture those skills and interests, to let participants know that they can achieve scientific career goals that ultimately will let them do what they want."

Harari divides his time judiciously between clinic, lab and a few other important activities. "One of the biggest challenges can be getting the heck away from work!" he says. "I have a beautiful family with a wonderful wife and four kids, so I have gotten very good at ripping off my tie in the driveway and joining family activities the moment I walk in the door. Maybe that's why I sleep so soundly at night."

D.L.

The east entrance of the new Health Sciences Learning Center, shown in the rendering above, will draw visitors into the central atrium. The atrium will connect the four floors of the rectangular-shaped educational wing, seen on the left, with the crescent-shaped two stories of the library wing, seen curving behind the entranceway on the right. The main entrance to the library—the heart of the building—will be accessed from the second floor of the atrium. The library also will extend through the entire third floor of the rectangular wing.

Major gift to support new library



The family of UW Medical School alumnus Paul R. Ebling, MD '55 (left), has given the largest private gift to the Health Sciences Learning Center. In excess of $3 million, the gift will help ensure that the new library will be among the most technologically sophisticated in the country.

by Linda Dietrich

A large, open room flooded with light from soaring walls of windows will soon become the bustling heart of medical education on the University of Wisconsin-Madison campus, thanks to the generosity of a University of Wisconsin Medical School alumnus and his family.

Through his estate, the family of Paul R. Ebling, MD '55, has given the largest private gift to the Health Sciences Learning Center. The generous gift, in excess of $3 million, will help ensure that the Learning Center library will be among the most technologically sophisticated in the country. The new library will bear the Ebling name.

"This gift from the Ebling family is pivotal in helping us achieve two important objectives for the new health sciences library," says Philip M. Farrell, MD, PhD, dean of the Medical School, who recently announced the gift. "First, it personalizes the library and recognizes an exceptional alumnus, who will inspire future generations with his story. Additionally, it provides funding needed

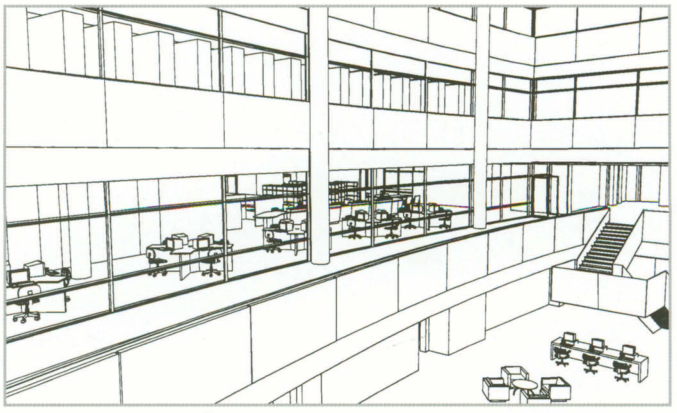
to ensure this 21st century library will be worldclass. We are deeply grateful to Paul's brother and sister, Walter Jr. and Mary, for their visionary support."

Currently under construction adjacent to UW Hospital and Clinics, the Health Sciences Learning Center will consist of two wings, a rectangular education wing on the south and a crescent-shaped library wing on the north.

The Ebling Library will extend through two floors. In addition to being structurally dramatic, and full of light and lake views, it will house the campus' merged health sciences libraries, drawing students and faculty from across campus for research and study.

A critical component of the Health Sciences Learning Center, the new home of the combined Middleton, Weston and Power libraries is being built with an eye to the future. The 50,000-square-foot wireless facility will offer computer-ready research workstations, a multi-media digital laboratory for developing Web-based curriculum, electronic desktop document delivery and the ability to call up live video reference. Upholding the true spirit of the "Wisconsin Idea," the building will also provide broadband video connections to users around the state.

A key feature of the library's floor plan is its consolidated service area. All customer assistance activities will be incorporated in a central area directly off the main entry. Here students, faculty and the community will find a multi-service operation where patrons can ask questions, request help, return materials and even check out laptop computers.



A bird's-eye view from inside the atrium shows a rendering of the third-floor library stacks and the second-floor general seating area.

Another highlight of the facility will be the medical history area that will house the Rare Books Collection (look for a future story in a coming issue of the *Quarterly*). A climate-controlled vault will preserve the priceless books, manuscripts and artifacts that the UW health sciences schools have amassed. Pieces of this impressive collection, which include meticulously illustrated medical texts from the 18th century and volumes from as early as 1492, will be available for display in specially designed cabinets on the third floor.

Library users will find comfortable seating and quiet areas throughout the Ebling Library, especially in the third floor reading room and in individual study spaces along the windows on both levels. Students and faculty will have access to 16 small study rooms—designed for groups of two, six or eight—or can collaborate in one of the six digital laboratory work areas.

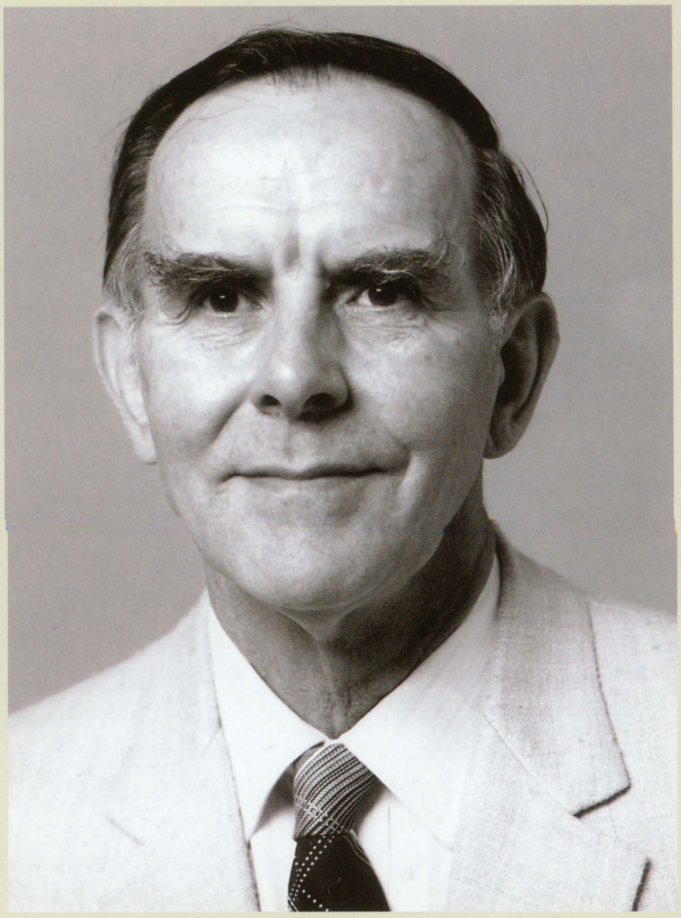
The Ebling Library will provide this century's newest medical students a modern learning environment. It will become a showcase for study and research on the UW campus and a magnet for scientific inquiry throughout the state and the nation.

All customer assistance activities will be incorporated in the consolidated service area to be located directly off the main entry of the new library.

Alumni *Profile*

Paul Ebling, MD '55

Richard Holder remembers his classmate



Paul Ebling, MD '55, in a 1983 photo.

Paul Ebling was a quiet man, perhaps one of the most unpretentious students in our class. He was slightly over six feet tall, had brown eyes, rather close-cropped curly hair, a unique hearty laugh and a ready smile that seemed to extend from ear to ear whenever he greeted you. He died very unexpectedly in June 2001, following complications of a cerebral vascular accident and an associated auto accident.

Someone once said that there are two types of people in this world: those who come into a room and say, "Well, here I am!" and those who enter and say, "Ah, there you are." Paul was most definitely one of the latter. He was several years older than most of his classmates, and clearly more mature than many of us. He was a good listener, and very reassuring and supportive of his colleagues.

Following graduation from Madison West High School, he received his premedical education at Lawrence College, Marquette University and the University of Wisconsin-Madison as part of the World War II Navy V-12 officer-training program. After serving for three years on active duty, he remained in the Naval Reserves, retiring in 1986 as a lieutenant commander. While on active duty in the Navy, he took additional classes at Harvard University, and was accepted at Harvard Medical School. But he decided to return to the Midwest and his beloved Madison, entering the University of Wisconsin Medical School. That's where I first met him in 1951.

Paul was very bright, and an exceptional student, as evidenced by his being a member of both Alpha Omega Alpha and Phi Kappa Phi. He was always well-prepared for our clinical sessions with Dean Middleton, which took place on wing 4West of the old University Hospital at 1300 University Avenue.

The sessions began with the dean extending his hand to shake that of the student who was presenting the case of the day. Needless to say, most of us were apprehensive, and our palms cold and wet with perspiration. The dean would shake the student's hand, quickly withdraw his own and wipe it on his long white coat, repeatedly uttering the word, "Fish! Fish!" I don't recall this ever happening in Paul's case…he was well-organized, courteous, quietly confident and self-reliant. I think the dean appreciated these qualities. It was obvious to most of us that Paul was one of his favorites.

Another recollection I carry with me is that of the dean, who seemed to appear out of nowhere, finding a casually dressed unassuming student walking the hall in 4West with hands in his pockets. The dean would approach the culprit quickly from behind and strike him sharply on the shoulder with the verbal admonition, "Hands out of your pockets, soldier!" Again, Paul never suffered this reprimand, as his white jacket was always well-pressed, his shirt and tie immaculate and his hands never in his pockets. He also walked with a military presence that the dean, a former Army Medical Corps general, admired.

Paul was the oldest of three children born to Dr. Walter H. and Elsie (Iwen) Ebling. His sister, Mary J. (Jack) Guhl, lives in Neenah, Wisconsin, and a brother, Walter R. (Sandra) Ebling in Bloomfield Hills, Michigan.

His father received his PhD from the UW-Madison, and later was the chief agricultural statistician for both the state Department of Agriculture and the U. S. Department of Agriculture. He also was a professor of agricultural economics at the University. Paul developed a respect for higher education and a devotion to the University at an early age, perhaps in large part through the influence of his father. This was evident throughout his life, as exemplified by generous financial support to family members going to college, as well as educational scholarships and gifts to the University.

After graduation from UW Medical School in 1955, Paul interned at Philadelphia General Hospital and then returned to University Hospital to begin a residency in internal medicine. He later entered the University of Cincinnati, where he was granted a doctorate in Industrial Medicine in 1960. He was Area Medical Director for Kaiser Aluminum and Chemical Corporation in Spokane, Washington, for three years, and then Medical Director of Kaiser Jeep Corporation in Toledo, Ohio. In 1968 he returned to Madison and to the home of his parents, which he had known since early childhood. He would live there the remainder of his life.

Paul became the Director of Admissions at the William S. Middleton Memorial Veterans Administration Hospital, a post he held until his retirement in 1988. It was during these years that I frequently conversed with him by telephone, as many of my patients were veterans. I never failed to appreciate the sensitive, concerned and helpful person that greeted me on the other end of the phone line. He rarely missed a medical class reunion, and never seemed to change in appearance, demeanor or personality.

Following his retirement, Paul continued to be involved with many fraternal, educational and charitable organizations in the Madison area, including the Bascom Hill Society, the Middleton Society, the University West End Club, Masonic Lodge No. 5, the Zor Shrine, the University Club, the Professional Men's Club, the Madison Club, the Reserve Officer's Association and Beta Theta Pi fraternity. He was a member of the First United Methodist Church.

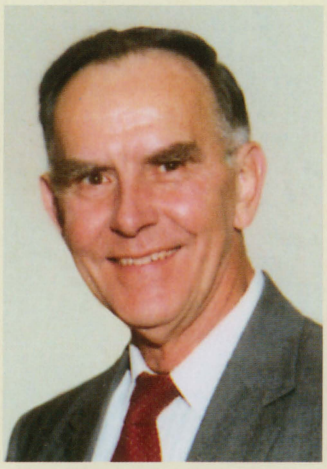
He enjoyed reading and found great pleasure in gaining further knowledge. A library was always one of his favorite places to spend his free time, and he remained ever cognizant of changes in the medical field. One of his main interests in recent years was the BioStar Initiative at the University. A devoted family member and known for his keen sense of humor, he continued to educate, encourage and inspire not only his immediate family, but also his extended family, including six nieces and nephews, sixteen grandnieces and -nephews and countless treasured acquaintances, especially Gertrude Theil, a dear friend of many years.

As medical students, many of us sensed that we were "standing on the shoulders of giants," as we stood in awe of our outstanding teachers as well as our renowned Dean Middleton. I now know that I was privileged to have been a classmate of a giant as well —Dr. Paul Robert Ebling.

Following graduation from UW Medical School, Richard Holder completed his internship in Detroit and spent two years in the United States Army. He and his wife, Joanne, then returned to their hometown of Black River Falls, Wisconsin, where Holder started his medical practice. A family practitioner for 40 years, he retired in 1997. The Holders continue to maintain their home in Black River Falls, but they spend their winters in Punta Gorda, Florida. They have four children and nine grandchildren.

Ebling's high school graduation photo.

Ebling graduated from University of Wisconsin Medical School in 1955.



Ebling in 1990.

Amy Fowler (above), an MD-PhD candidate in the Medical Scientist Training Program, realizes that her degree combination could yield a variety of options. She is considering an academic medicine career in obstetrics and gynecology, emphasizing reproductive endocrinology.

Training physician-scientists

MD-PhDs work at the special interface of care and discovery

by Kris Whitman

The National Institutes of Health (NIH) and other prestigious research funding organizations often turn to a unique breed of individual—the MD-PhD-prepared physician-scientist—to conduct biomedical research. Physician-scientists are in demand because they combine high quality medical training with a rigorous graduate-level dissertation, allowing them to work effectively at the interface of clinical care and basic science, explains University of Wisconsin Medical School's Vice Dean and Associate Dean for Research Paul DeLuca, PhD. With the support of an institutional training grant from the NIH, UW Medical School's Medical Scientist Training Program (MSTP) stands out as one of the nation's top programs producing such special researchers.

"Today's buzzword is translational research—taking the bench to the bedside. While it's exciting when that happens, it's rare and must be handled very carefully," says Nancy Sweitzer, MD, PhD '93, UW Medical School assistant professor of medicine and head of UW Hospital and Clinics' heart failure program. "I believe there's an awareness nationally that there aren't enough MD-PhDs. I think having a dual degree makes me more interested in how what's happening in the scientific world affects my patients. Also, my patient care helps me keep my research in perspective. For me, it's important to do research that has the potential to impact the course of a disease."

Amy Fowler, an MD-PhD candidate in the MSTP adds, "I believe tight research budgets spur the NIH to focus its money on studies that can be translated into something beneficial for patients. MD-PhDs have a more direct connection than other scientists to make their research applicable,

test it and make it available to help people."

Jointly sponsored by UW Medical School and the UW-Madison Graduate School, the MSTP became a formal program in 1986, gained stature through NIH funding in 1998 and is now training 43 students. Drawing candidates from across the United States, program staff interviewed 33 applicants and enrolled eight new candidates for 2002.

Goals for the next several years are to enroll 10 new students per year, thus enlarging the program to approximately 80 students, and to reduce the average training time by one year to seven and a half years, explains MSTP Director Deane Mosher, MD, UW Medical School professor of medicine. The program's leadership also includes associate directors Anna Huttenlocher, MD, assistant professor of pediatrics and pharmacology, and Timothy Kamp, MD, PhD, associate professor of medicine and physiology.

Candidates spend their first two years in medical school, then obtain a doctorate degree prior to completing their last two years of medical school. During their first research years, students explore opportunities in myriad departments offering doctoral programs, meet with professors who could serve as potential advisors, complete two or three research lab rotations, and ultimately choose a focus for their graduate research. A bridging curriculum is being formalized to ensure that students maintain their clinical skills during their research years.

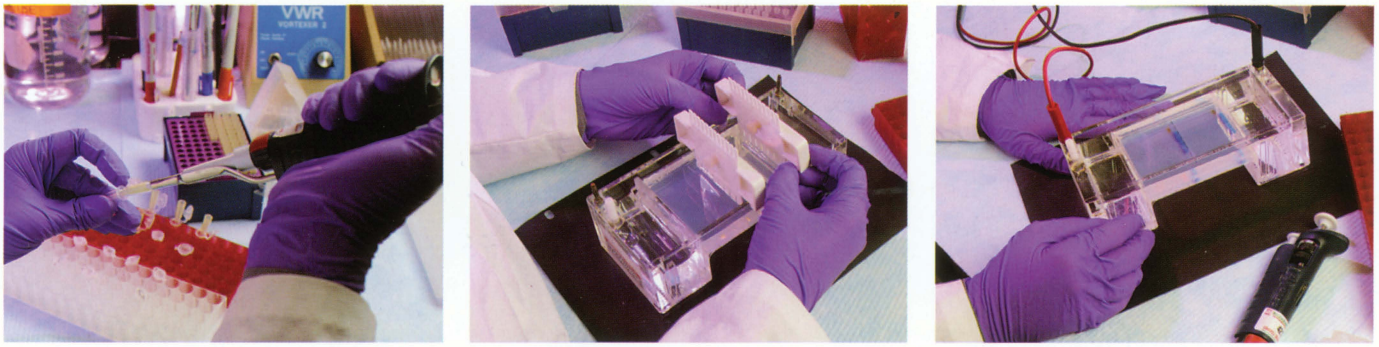
DeLuca explains that while students are in the graduate school component of the program, they function as research investigators. The students learn to propose hypothesis-driven research in a rigorous scientific process, conduct experiments that will investigate the hypothesis, analyze the data and present the results in a peer-reviewed manner so that they can reach solid scientific conclusions. Students' recent papers describe discoveries ranging from the genetic identification of a protein that is key to roundworm gonad formation, to a fundamental biophysical characterization of the role of bound water in the interaction of proteins with DNA.

Mosher explains that although the bulk of the research papers to date can be broadly classified as wet-lab biology, as the program enlarges, students will attack research problems in engineering, epidemiology, biostatistics and the social sciences. He emphasizes that few, if any, institutions can compare to UW-Madison in the richness of and accessibility to graduate programs that are relevant to medicine.

According to Sweitzer, an alumna of the MSTP, "My PhD training has been invaluable. I learned a lot of things that were not taught in medical school, such as how to give a talk, how to teach, how to write an effective grant and get funding. Also, I've found that the basics of scientific hypothesis generation and experimental design can be translated to any field."

Fowler and Sweitzer say they chose to pursue their dual degrees at UW Medical School for several reasons. They liked the wide array of potential fields of investigation, the Medical School's strong reputation for supporting both research and clinical care tracks and the UW-Madison's vast amount of research funding. Nationally, the university ranks second, and first among public universities, in research and development expenditures.

Fowler, now in her third year of the UW Graduate School's cell and molecular biology program, is working with Elaine Alarid, PhD, UW Medical School assistant professor of physiology, focusing her research on estrogen receptor expression in relation to breast cancer.



Working with Elaine Alarid, PhD, UW Medical School assistant professor of physiology, Fowler focuses her research on estrogen receptor expression in relation to breast cancer.

"I think having a dual degree makes me more interested in what's happening in the scientific world that affects my patients," says Nancy Sweitzer, MD, PhD '93. Sweitzer (left), head of the UW Hospital and Clinics' heart failure program, graduated from the Medical Scientist Training Program.

A South Dakota native, she realizes that her degree combination could yield many options. She is considering an academic medicine career in obstetrics and gynecology, with emphasis on reproductive endocrinology.

Sweitzer's PhD work in the UW Medical School's physiology department focused on cardiac muscle contractility, a field closely related to her current clinical research in diastolic heart failure. She returned to her home state of Wisconsin in 2001 after completing a residency and fellowship at Brigham and Women's Hospital in Boston and spending two years on the faculty at Harvard Medical School.

Fowler notes that the MSTP is academically rigorous, but its students enjoy a strong support system and a great deal of camaraderie. Each MSTP candidate is assigned to an MD-PhD faculty mentor who helps the student with career goals, options and other concerns they wish to discuss. Additionally, through a buddy system, senior students mentor junior students.

One challenge MD-PhD students face is that they move into their first graduate year at the same time that their medical school classmates move into the third year of medical training. Then, at the end of their PhD training, MSTP students return to medical school when their research peers graduate and begin careers. Although many MSTP students find it difficult to lose the connections with both sets of students, Fowler recognizes a positive side as well.

"For me, it was refreshing to go from the second year of medical school and into graduate school because it's so different. Your class load lightens, so you're allowed more time to formulate ideas and be creative, and you can set your own goals and schedule for what you want to accomplish," she says. "I'm also looking forward to the next transition into the third year of medical school when I will get to work with patients all day and become part of the medical care team. Being able to contribute to the patient's care is motivating."

Another challenge is finding time for clinical rotations in the midst of laboratory responsibilities—and vice versa. "I'm already feeling the challenge of trying to fit research in with clinical practice," says Fowler, admitting that the balance will remain difficult to achieve in her future career.

Sweitzer credits UW Medical School administration for protecting faculty members' research time. "There's a strong effort to provide an environment in which success with a dual career is possible," she says.

The future is bright for MSTP graduates, says DeLuca. "MD-PhDs tend to be hot commodities because they are well prepared to pursue academic careers working at the special interface between care and discovery," he explains.

Reflects Sweitzer, "An MD-PhD is not one type of person. We are all different, we choose different career paths, we accomplish very different things from one another, but because we have this additional breadth of training, it gives us a unique skill set that can make us better doctors and better scientists. It helps us understand what really matters in terms of patients' needs. I feel my years spent getting my PhD were incredible years of growth, and they've served me extremely well as a doctor."

Students and seniors team up to help each other

by Aaron R. Conklin

Betty Smith sits on a couch next to Bobby Agrawal, talking as she might to an old friend, even though the two met for the first time only moments before. Her blue eyes flash as she tells him about her life—her plans to become a journalist, her husband's exploits as a Navy pilot in World War II, her career as a Madison alderperson—as the young man listens intently, returning her smile. They're separated by 65 years, but as they speak, it's obvious that the gap matters little to either.

This, unfortunately, is a scene that has been all too rare among medical students, many of whom get little opportunity to interact with older adults—as patients or otherwise—during their first two years of study. Unlike other medical disciplines, geriatrics usually has no formal course or clerkship. In fact, only a small fraction of the thousands of hours that University of Wisconsin Medical School students spend learning during their first two years is related to geriatrics.

As the demographic imperative created by an aging generation of baby boomers becomes more and more difficult to ignore, the need for more geriatrics education has become apparent to medical schools across the country. Addressing this universal concern, UW Medical School has created the Student-Senior Partnership Selective—the experience that has brought Betty Smith and Bobby Agrawal together. It is a volunteer program designed to help students recognize any ageist stereotypes they may have, give them a better understanding of the psycho-social context of older adults and teach them strategies to communicate with seniors, as people and as patients. Now in its second year, the selective is breaking down generational barriers, one student at a time.

Steven Barczi, MD, assistant professor of medicine and director of the geriatrics medicine fellowship at the Medical School and the William S. Middleton Veteran's Hospital in Madison, can tell you a lot about medical students' exposure to and attitudes toward older adults. A few years ago, Barczi was awarded

Geriatrician Steven Barczi, MD, UW Medical School assistant professor of medicine (at right with patient Rev. Walter Koepsell and student Raj Kakarla), believes that students should be exposed to older patients in their first and second years of medical school. The Student-Senior Partnership Selective provides interaction that is fruitful for first-year students and seniors alike.

Med I Bobby Agrawal (right) expects that his pairing with Betty Smith in the student-senior partnership will better prepare him to treat and communicate with his future older patients. Smith hopes that the interaction with Agarwal may offer a helpful inroad to more regular medical care.

a grant from the Association of American Medical Colleges and the Hartford Foundation to study and develop new geriatrics curricula.

"It was clear that most students weren't getting much exposure at all to geriatrics in the first couple of years," explains Barczi. "When students were finally getting that exposure in their third year, they were getting a very skewed perspective. They were working on the inpatient or medicine unit, seeing older adults who were coming in at their very worst. Their mindset was that geriatrics equals that population."

The reality, of course, is something very different. According to Barczi, only about 15 percent of older adults are limited by chronic health problems. While that number certainly climbs as seniors continue to age, the vast majority live active, healthy lives.

"But if you ask the average medical student what those numbers are—and I do—they'll give you a number that's closer to 40 or 50 percent," says Barczi.

Enter Renie Schapiro, an independent health consultant who came to Madison from Washington, D.C., seven years ago. Schapiro serves as a member of the governing board of Independent Living, a Madison organization that provides a range of services to the elderly and the disabled. For years, she had been searching for a way to give medical students an understanding of older adults that included each person's personality and rich history, not just his or her symptoms. In early 2001, the two hooked up—Barczi offering the curricular expertise, Schapiro providing a connection with the seniors.

Instead of adding to the already overloaded medical student curriculum, the selective was conceived as an adjunct to the four-semester "Patient, Doctor and Society" course, which already had a strong communication focus. The selective comprises three parts. First, a meet-and-greet evening at Independent Living Retirement Center, in which the students and seniors introduce themselves to one another, pair up, chat and set up a time and date for a home visit. In part two, students visit their senior partners in their homes to learn more about their medical conditions and concerns. In the third session, students accompany the seniors to a physician visit, acting as a support person and advocate.

For the students, it has been an eye-opening opportunity. Although Agrawal is leaning toward pursuing a career in cardiothoracic surgery, he knows his experience with the selective, no matter how brief, will better prepare him to treat and communicate with his future older patients.

"We have a strong emphasis on respecting the elderly," says Agrawal, whose family hails from India and whose older sister is beginning a geriatrics residency in June at UW Hospital and Clinics. "It's daunting to know that, in doing this program, you're taking responsibility for another person's life and well-being, but as a physician, that's something you do every day. The selective makes you feel like a doctor, and it broadens your horizons."

For Smith, her interaction with Agrawal could offer a helpful inroad to regular medical care. If the heart palpitations and blood clots she admits she's been having recently are any indication, it is something she most definitely needs. "I've had a lot of doctors in my lifetime," says Smith. "I've never felt that they understood an old person."

But there's another benefit for the seniors, and it's the thing that has surprised Schapiro the most about the program: They aren't in it for themselves.

"I thought the seniors would be eager to have some help at the doctor's appointment," says Schapiro. "It turns out that this was the least of their concerns. They're excited that they can be useful in creating a generation of sensitive doctors—they like that they have something to offer."

The selective's first year was an unqualified success—23 students participated, and they each described the experience as transformative. In the evaluation survey, one student wrote, "The senior I worked with was 85 and extremely active with many social relationships—I was very surprised by her energy! My assumptions and stereotypes have been broken!"

Additional evidence offers more concrete proof. According to Schapiro, many of the students who participated in the first selective remain in touch with their senior partners even today, more than a year after the experience ended. This year, the selective expanded to incorporate 42 students and a new location: 15 students paired with seniors at the Oakwood Retirement Community in Madison.

The selective also added an educational improvement this year. Students were asked to do preliminary research on their senior partner's medications. "They'll get an idea of why older adults don't always take all the drugs their doctors tell them to," says Barczi. "Often they don't understand the side effects, they stop the drugs prematurely, they can't afford them or they misunderstand their doctor."

Both Barczi and Schapiro would like to expand the program even further, but they recognize that their hopes may be constrained by some hard realities: At the moment, there's no obvious fit for it in the second-year curriculum without bumping something else.

"The best-case scenario would be to have the experience be continuous—students could maintain the relationship and play different advocacy roles as they develop in their knowledge and skill base," says Barczi. "By the time students are in their second year, they have a different perspective. They're starting to behave and act more like physicians. If you could bring the program further than a single semester, it would be attractive."

Barczi is exploring the possibility of linking the selective to an extra-curricular service learning program, similar to the MEDIC program, in which medical students provide clinical care to underserved community members. "The students know that it doesn't matter what discipline you're in—short of pediatrics, you're going to be dealing with an older population over the coming decade or two," says Barczi. "Fifty to sixty percent of patients who are hospitalized are older than age 65. The students are sensing that."

Q

Neighborhood experience sparks new program

Renie Schapiro

The student-senior selective debuted in 2002, but it actually had its genesis more than 15 years earlier. In the mid-1980s, Renie Schapiro (left) was living in Washington, D.C., working as editor of *The New Physician,* a magazine for medical students. Her neighborhood, like many in the area, was lined with row houses boxed closely together. In the evenings, neighbors would congregate on porches and in front yards to socialize.

"Two doors down from me, there was this colorful, 80-year-old woman named Maria," recalls Schapiro, a freelance health consultant who now works with UW Medical School. "She used to get very excited about her doctor appointments. Then, she would come back, and we'd all ask her, 'Maria, what did they say?' and she would mumble a few things and become very quiet. It was clear she didn't understand anything her doctor had said, and all that anticipation had been for nothing."

Maria's experience flipped a switch in Schapiro's head. Couldn't there be a way to give doctors—or even better, medical students—some sense of the whole person Schapiro knew in her neighbor? In the creation of the student-senior partnership selective, she's finally realized it.

Funding, naturally, is an ongoing issue. The grant money that started the selective will eventually expire. Schapiro is hopeful that a more permanent source can take its place.

"This is a chance for students to see the interaction from the patients' perspective," says Schapiro. "If you can reach students before they're overwhelmed by their studies, they're very open to it."

A.R.C.

Students honor cadaver donors

by Aaron R. Conklin

The general anatomy course is the centerpiece of a University of Wisconsin Medical School student's education—the place in which he or she first learns to dissect and analyze a human body.

The course is designed to be a clinical, academic experience, but the gift that underlies it is anything but that. In January, a group of first-year students offered a humble thanks to the unheralded contributors who made the class uniquely human—those who donated their bodies to the advancement of medical science.

For the fifth consecutive year, first-year medical students held a special ceremony to honor the donors who provided them an invaluable learning tool for their general anatomy coursework. Students hold the ceremony yearly to show gratitude and respect for the donors and to reflect on the significance of their classroom experiences.

"It seems only right that we try, in some small way, to say 'thank you' to the people who did this amazing thing for us," says Nicole Krumrei, a first-year student from Waukesha, Wisconsin, who helped organize this year's ceremony. "It was a unique gift—to contribute to our medical education in a way nobody else could and at the same time expose us to personal medicine and gross anatomy."

At last winter's ceremony to honor cadavers used in gross anatomy class, first-year UW Medical School students came forward to light a candle in memory of each donor.

The ceremony lasted approximately 45 minutes. UW anatomy professor Edward Schultz, PhD, who is the Medical School's cadaver procurement director, read a letter of appreciation honoring those who donated their cadavers. Class mentor Sandra Osborn, MD '70, spoke, as did John Reed, a McFarland resident whose wife donated her body to the Medical School. Reed offered a community member's perspective. At the end, students came forward to light a candle in memory of each donor.

Medical Students for Minority Concerns hosts 15th annual health fair

Photo: Bob Rashid

Under the supervision of health fair volunteer physicians, medical students conducted basic cholesterol and blood glucose tests, as well as blood pressure and vision screening on over 120 families.

by Sara Lorenz, Med II
Health fair chair

Madison's "Multicultural Celebration of Health," sponsored by Medical Students for Minority Concerns (MSMC), took place Saturday, February 1, 2003, at the Boys and Girls Club of Dane County.

MSMC, which consists of some 70 UW Medical School students, has organized the health fair for 15 straight years to provide underserved and minority populations in Madison basic health screening and information. The location of the health fair was changed from the East Towne Mall to the Boys and Girls Club of Dane County in an effort to better reach the underserved of Madison. The event was also the kick-off for Black History Month at the club.

Many significant changes this year helped ensure the fair's success in the eyes of all who organized the event, as well as the participants. MSMC provided basic blood pressure, cholesterol, glucose and vision screening to over 120 families. All participants received a free meal, and everyone left the event with a gift pack containing toothbrushes, toothpaste, toys and background on the MEDIC clinics staffed by UW Medical School students, the Rape Crisis Center and Domestic Abuse Intervention Services. The fair included a kids' corner, physics and chemistry demonstrations, massages and acupuncture. Information was distributed on medical assistance, smoking cessation, CPR, nutrition, contraception and pregnancy planning.

The health fair truly succeeded in reaching the underserved of Madison. We had an unexpectedly large turn-out of Spanish-speaking participants that kept the bilingual volunteers busy the entire day. We tried very hard to provide services in both Spanish and English. One of the big challenges for next year will be to increase the level of Spanish-speaking volunteers and to make sure that all information is provided in both languages.

The health fair generated very positive energy, and it was wonderful to see so many organizations pulling together to promote the health of the people of South Madison. Other groups that were involved included the Family Medicine Interest Group, the Pediatrics Interest Group, Medical Students for Choice, the Geriatrics Interest Group, MEDIC, Alpha Epsilon Delta, Campus Women's Center, Rape Crisis Center, Women's Transit Authority and the Dane County Department of Human Resources.

Approximately 75 volunteers participated in the health fair. The physics wizard was by far the most popular with the kids, while an acupuncture session was most popular with the adults. We are looking forward to planning next year's event.

Many people helped make the fair a resounding success, but we can't list them all. But special thanks go to our MSMC advisor Gloria Hawkins, PhD, UW Medical School assistant dean, and John Harting, PhD, chair of the anatomy department, who supplied our yellow tee-shirts. We would also like to thank all the doctors who volunteered their time.

Photo: Bob Rashid

Some of the members of the MSMC include (standing from left): Advisor Gloria Hawkins, Sarah Knuteson, Patrick Maloney, Brianna Cowan, Laura Skrezecski and Temitayo Oyegible. Seated: Sabrina Guse, Sara Lorenz and Kristina Espinoza.

New book details brain effects of epileptic seizures

by Lisa Brunette

The debate has gone on for more than a century: Do seizures damage the brain? Evidence from experimental and clinical studies clearly shows that a series of prolonged or repeated seizures during which the patient does not regain consciousness—a condition known as "status epilepticus"—does damage the brain both structurally and functionally. But the impact of brief seizures, which afflict about 1 percent of the population, has been far less clear.

A recently published book, co-edited by Thomas Sutula, MD, PhD, of University of Wisconsin Medical School, and Asla Pitkanen of the University of Kuopio in Finland, presents a broad range of evidence bearing on this critical question. Sutula, who chairs the UW neurology department and heads the UW-Madison Center for Neuroscience, points out the changing perspective.

"A substantial group of people with epilepsy and their families, based on their own day to day observations, have concerns that poorly controlled brief seizures may be having an adverse impact on overall function," he notes. "Despite the patients' concerns, there has been remarkable resistance to this notion among physician care-givers, including neurologists, who have generally provided reassurance that brief seizures may be disruptive, but have little or no long-lasting effect. As a result of emerging experimental studies in chronic models and through human observations, it is now difficult to give this reassurance."

In *Do Seizures Damage the Brain,* epilepsy experts from around the world review epidemiological, pathological and clinical studies bearing on seizures' impact on the brain.

Continuing studies of epilepsy models from Sutula's laboratory spanning more than a decade have provided evidence that seizures in both adults and children have cumulative damaging effects on neural circuits in the brain and on behavioral functions that depend on those circuits.

As a result of magnetic resonance imaging techniques now being applied over periods of several years in people with epilepsy, there is evidence that poorly controlled seizures are associated with progressive damage in the hippocampus, a region of the brain involved in memory, in a significant subset of patients. Changes also are now being reported in the cortex.

The potential adverse consequences of repeated seizures are getting attention as a result of long-term neuropsychological assessments, some of which were pioneered at UW-Madison by the late renowned neuropsychologist Charles Matthews, PhD. Such studies are continuing through the research of Bruce Hermann, PhD, in the neurology department.

Given the results of a wide range of recent studies, Sutula and Pitkanen conclude that seizures both in early and later life may have long-term adverse effects on memory and other functions in some patients, that it is critical for all seizures to be taken seriously, and that healthcare providers should make complete seizure control a priority.

"...[U]niversal reassurance that seizures are in themselves benign seems less prudent than individualized assessment and emphasis on the urgency and importance of seizure control," they write. That's because seizures may induce changes in brain circuitry at many levels of organization—from the composition of sub-units of neural receptors to changes in neural connectivity.

Sutula, who joined the UW Medical School faculty in 1984, recently completed a year-long term as president of the American Epilepsy Society.

Brain integrates head position and acoustics to locate sound

by Dian Land

The slightest turn of the head can significantly change the way a person or animal detects sound. A subtle tilt alters the angle at which high-frequency sound waves hit the ear, providing cues to localize the sound. To use those cues, the brain must put what it hears into the context of the position of the head. Until recently, scientists were not sure how this was done.

Now researchers at University of Wisconsin Medical School appear to have the explanation. They have discovered that in the cochlear nucleus—the first sound-processing station in the brain—certain cells accomplish the job by integrating the two kinds of information, each of which travels along a distinct pathway.

The researchers compared activity in both pathways, examining currents running through synapses—or signal-transmitting junctions—in fusiform cells of the cochlear nucleus. To their surprise, they learned that synapses transmitting acoustic information were not influenced by previous activity—they were stable. On the other hand, synapses carrying information about head and ear position were continually strengthened or weakened depending on the amount of activity—they were plastic.

"The observation that the strength of synapses can vary as a function of their activity has been of great interest because it underlies the brain's ability to learn and respond to the environment," says Donata Oertel, PhD, the UW Medical School physiology professor who directed the study. "However, if this part of the auditory system were plastic, it would cause what we hear now to be confused with what we heard just moments before."

Oertel conducted the study, which appeared in the December 16 *Proceedings of the National Academy of Sciences,* with Kiyohiro Fujino, now of the Department of Otolaryngology at Kyoto University Graduate School of Medicine.

The auditory system's main responsibilities are to locate sounds, analyze their properties and then recognize what they mean. The initial duties take place in the cochlear nucleus.

"Sound localization is an especially important function of the auditory system because it allows us to figure out what's happening around corners, in the dark or when vision can't help," says Oertel, an expert on the cochlear nucleus.

For locating sounds on the horizontal plane—those coming from the left or right of the head—factors such as relative sound intensity in each ear or the difference in sound's arrival time at each ear are important cues. Cells in the ventral cochlear nucleus are responsible for pinpointing horizontal sounds.

"But you don't have those cues in the vertical plane. If you're trying to distinguish sounds coming from above or below the head, or in front of or behind it, time and intensity differences at the two ears don't help at all," Oertel says. "High frequency sound waves are distorted differently when they are heard from straight on rather than high up, and the asymmetry of our ears distorts the sound waves in another way when they come from the front or back."

Following the lead of other investigators, including some at UW, Oertel looked to the dorsal cochlear nucleus for the source of sound detection on the vertical plane. In her earlier research, she showed that fusiform cells, the principal cells of the dorsal cochlear nucleus, are activated by two sets of dendrites, or threadlike arms of nerve cells. One set detects sounds through auditory nerve fibers; the other carries information about the position of the ears, head and neck through parallel fibers.

In the current work, Fujino, who was a post-doctoral fellow with Oertel, used a technique called patch-clamping to record activity at the synapses of single fusiform cells. The experiment showed remarkable differences.

Currents evoked by activating signals through the parallel fibers were greatly strengthened with increasing use and weakened with decreasing use. This plasticity presumably aids in adapting to differing head positions, Oertel says. Signals evoked through the auditory nerve, which are involved in sound processing, were stable and not influenced by use.

Oertel says that it is extremely rare for single cells to exhibit both the plasticity and the stability she and Fujino found.

Brain images reveal effects of antidepressants

Repeated scans with functional MRI technology showed that antidepressants begin to change the brain in just two weeks.

by Dian Land

The experiences of millions of people have proved that antidepressants work, but only with the advent of sophisticated imaging technology have scientists begun to learn exactly how the medications affect brain structures and circuits to bring relief from depression.

Wisconsin researchers recently added important new information to the growing body of knowledge. For the first time, they used functional magnetic resonance imaging (fMRI)—technology that provides a view of the brain as it is working—to see what changes occur over time during antidepressant treatment while patients experience negative and positive emotions.

The study appeared in the January issue of the *American Journal of Psychiatry.*

The researchers found that when they gave the antidepressant venlafaxine (Effexor®) to a small group of clinically depressed patients, the drug produced robust alterations in the anterior cingulate. This area of the brain has to do with focused attention; it becomes activated when people face conflicts. Unexpectedly, the changes were observed in just two weeks.

"Conducting repeated brain scans in these patients allowed us to see for the first time how quickly antidepressants work on brain mechanisms," says Richard J. Davidson, PhD, director of the W. M. Keck Laboratory for Functional Brain Imaging and Behavior, where imaging for the study took place. The findings were surprising because patients do not usually begin noticing mood improvements until after they have been taking antidepressants for three to five weeks.

The researchers also found that while the depressed patients displayed lower overall activity in the anterior cingulate than non-depressed controls, those depressed patients who showed relatively more activity before treatment responded better to the medication than those with lower pre-treatment activity. This kind of information may be extremely useful to clinicians someday, says co-author Ned Kalin, MD, chair of the UW Medical School psychiatry department and director of the HealthEmotions Research Institute.

"We expect that physicians in the future will be able to predict which patients will be the best candidates for antidepressants simply by looking at brain scans that reveal this type of pertinent information," says Kalin. One-third of all patients treated with antidepressants do not respond to them, and of those that do, only about 50 percent get completely better, he adds.

Virtually all previous studies analyzing brain activity in depressed people used PET (positron emission tomography) and SPECT (single photon emission computed tomography) technology. With these systems, scientists were unable to obtain images of the same resolution as that which is now obtainable with fMRI.

The Wisconsin team used fMRI to record subjects' reactions as they viewed pictures designed to stimulate negative and positive emotions.

"We believe that we can uncover the best indicators of treatment changes when we present research subjects these pictures," says says Davidson, the Vilas Professor of Psychology and Psychiatry. "The pictures activate the individual circuits that underlie different kinds of emotional responses."

The Keck imaging laboratory is an integral component of the HealthEmotions Research Institute, where the core mission is to uncover the complex linkages between emotions and health.

Meditation produces sustained changes in brain and immune function

by Lisa Brunette

In a small but highly provocative study, a University of Wisconsin-Madison research team has found, for the first time, that a short program in "mindfulness meditation" produced lasting positive changes in both the brain and the function of the immune system.

The findings suggest that meditation, long promoted as a technique to reduce anxiety and stress, could produce important biological effects that improve a person's resiliency.

Richard Davidson, PhD, Vilas Professor of Psychology and Psychiatry, led the research team. The study, conducted at the biotechnology company Promega, near Madison, appeared in the *Journal of Psychosomatic Medicine.*

Photo: Michael Lemberger

Local employees gave UW researchers an opportunity to demonstrate a real biological impact of an ancient practice.

Mindfulness meditation is a practice designed to focus one's attention intensely on the moment, noting thoughts and feelings as they occur, but refraining from judging or acting on those thoughts and feelings. The intent is to deepen awareness of the present, develop skills of focused attention and cultivate positive emotions such as compassion. Mindfulness meditation focuses heavily on awareness of breathing.

In the UW study, participants were randomly assigned to one of two groups. The experimental group of 25 subjects received training in mindfulness meditation from one of its most noted proponents, Jon Kabat-Zinn, PhD, who developed the mindfulness-based stress reduction program at the University of Massachusetts Medical Center. The group attended a weekly class and one seven-hour retreat during the study; they also were assigned home practice for one hour a day, six days a week. The 16 members of the control group did not receive meditation training until after the study was completed.

In addition to asking the participants in each group to assess how they felt, the research team measured electrical activity in the frontal part of the brain, an area specialized for certain kinds of emotion. Earlier research has shown that, in people who are generally emotionally optimistic and experience positive emotion, the left side of this frontal area becomes more active than does the right side.

The findings confirmed the researchers' hypothesis: The meditation group showed an increase of more activation in the left side of the frontal region. This suggests that the meditation itself produced more activity in this region of the brain. This activity is associated with lower anxiety and a more positive emotional state.

The research team also tested whether the meditation group had better immune function than did the control group. All the study participants received a flu vaccine at the end of the eight-week meditation class. Then, at four and eight weeks after vaccine administration, both groups had blood tests to measure the level of antibodies that they had produced against the flu vaccine. While both groups (as expected) had developed increased antibodies, the meditation group had a significantly larger increase than the controls, at both four and eight weeks after receiving the vaccine.

"Although our study is preliminary and more research clearly is warranted, we are very encouraged by these results," says Davidson. "The Promega employees who took part have given us a wonderful opportunity to demonstrate a real biological impact of this ancient practice."

Davidson, who is integrally involved with UW Medical School's HealthEmotions Research Institute, plans further research on the impact of meditation. He currently is studying a group of people who have been meditating for more than 30 years. His research team also is planning to study the impact of mindfulness meditation on patients with particular illnesses.

Establish a legacy in the new Health Sciences Learning Center

by Kathleen O'Toole Smith
Director of Development
UW Medical School

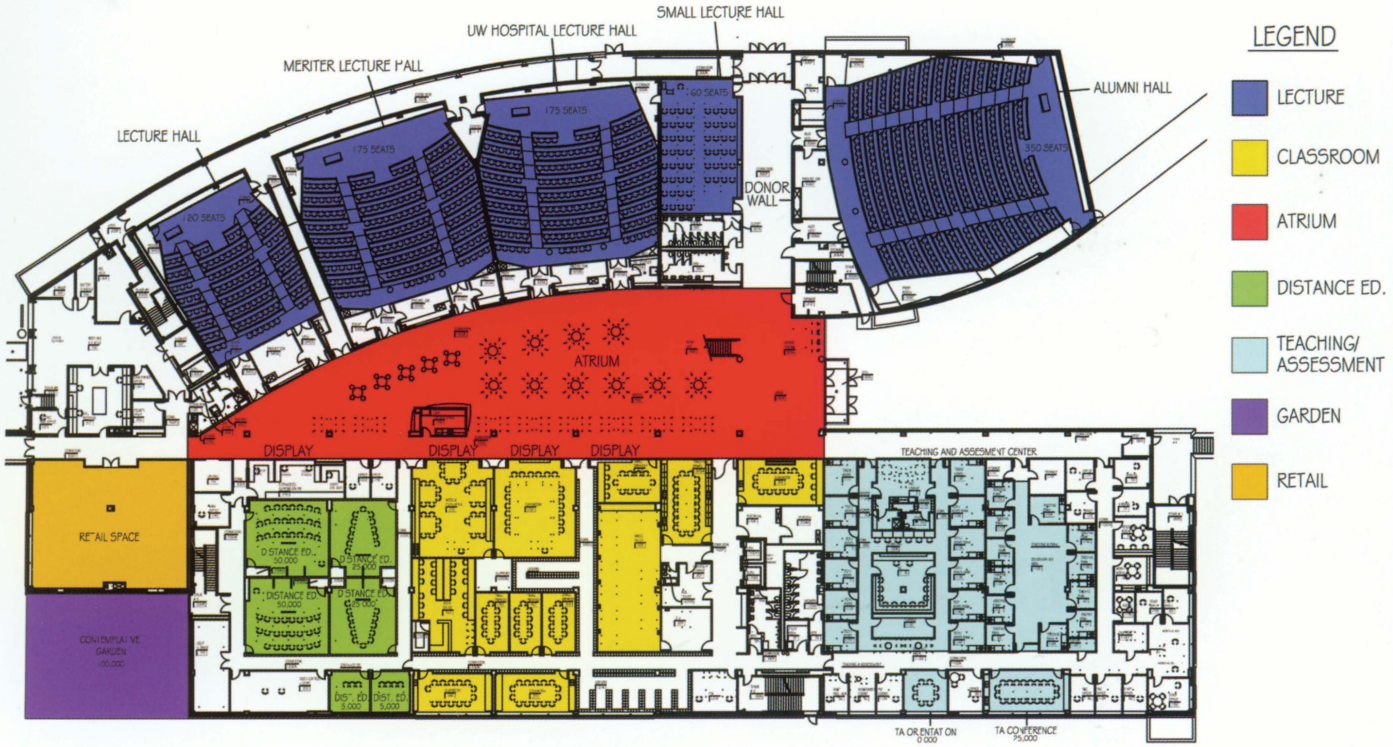
Ten years ago, construction of the new Health Sciences Learning Center (HSLC) seemed like a dream. Now, thanks to the marriage of state funding and private philanthropy, this great new teaching facility will open in the summer of 2004.

It has been my great pleasure to be able to meet with many alumni, faculty and friends of UW Medical School who have generously supported this vital project. Donors who have made gifts of $10,000 or more automatically become members of the Middleton Society, our premier giving society; they also receive the opportunity to name a space in the new building.

We believe that it is extremely meaningful to honor donors by displaying their names on the rooms of this building. By naming classrooms, lecture facilities and lounges, we imprint on students the legacies that have made UW Medical School great. The names also tell the important story of the partnerships the school has created across Wisconsin and beyond.

Representatives of the UW medical, nursing and pharmacy schools and the health sciences libraries worked together with students to design interior teaching and study spaces that we expect will set the standard in health sciences education. The HSLC will be among the most sophisticated educational buildings in the nation.

I invite you now to join me for a virtual tour of the HSLC by looking at the floor plans shown on these pages. As I describe some of the unique design aspects that make this facility truly magnificent, I encourage you to think about the space that you may want to name for yourself and your family. Many recognition opportunities remain.



FIRST FLOOR PLAN
NOT TO SCALE

The Tour Begins: First Floor

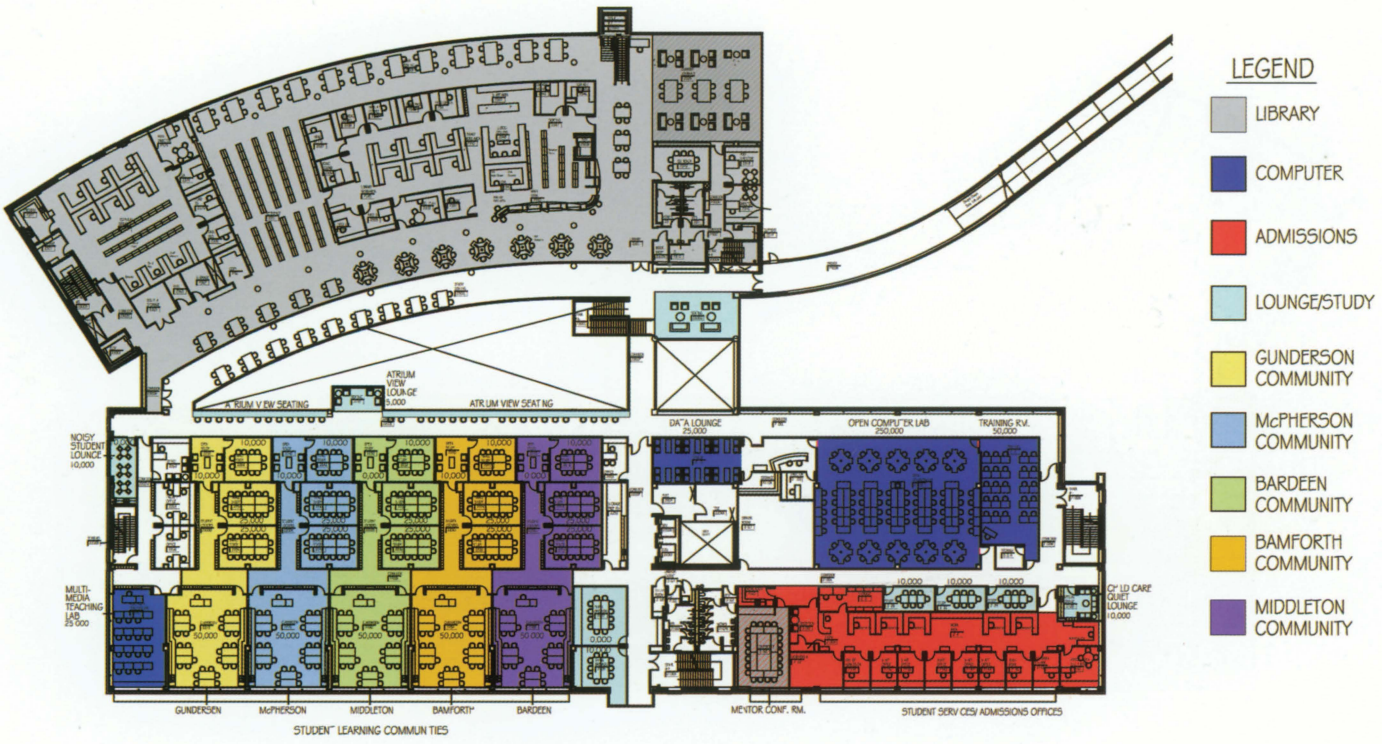
We enter the atrium of the building—a central area that joins the southern rectangular wing and the northern crescent-shaped wing. Light streams down four stories into the 11,000 square-foot atrium, which serves as a gathering space to accommodate dozens of visitors. A collection of unique artisan-crafted tables, called The Gift, immediately catches our eyes. Each table represents one of the gifts of life—such as the gift of hearing and the gift of sight. Two donor walls are an additional attraction, commemorating all those who have made gifts supporting the HSLC and Alumni Hall. We stop to look into the bookstore and a coffee shop with snack bar.

From the atrium, we can walk to UW Hospital and Clinics by means of a connecting bridge to the south, while another bridge on the second floor connects us to Rennebohm Hall, the new School of Pharmacy building. The atrium offers a handsome, easily accessed meeting place for future Middleton Society, Wisconsin Medical Alumni Association (WMAA) and Continuing Medical Education events.

Five lecture rooms are located off the atrium, including the dramatic 350-seat Alumni Hall, the 175-seat UW Hospital and Clinics Lecture Hall and the 175-seat Meriter Hospital Lecture Hall. The auditoriums feature a full spectrum of audio-video capabilities and comfortable seating. Continuing our tour, we pass the Teaching and Assessment Center, a large basic-skills clinic, smaller multi-purpose classrooms and the distance education facility—all also situated on the first floor.

Second Floor

As we climb the stairs or take the elevator to the second floor, we find the Admissions Office, the open computer-training laboratory and the five Learning Communities. Named to honor prominent school leaders Drs. Charles R. Bardeen, Betty Bamforth,



SECOND FLOOR PLAN
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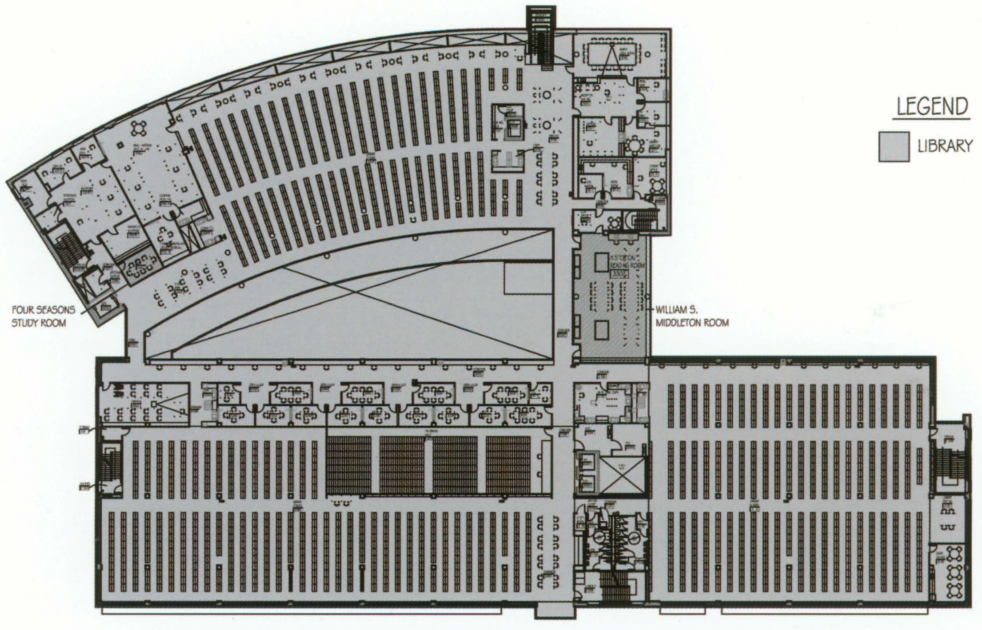
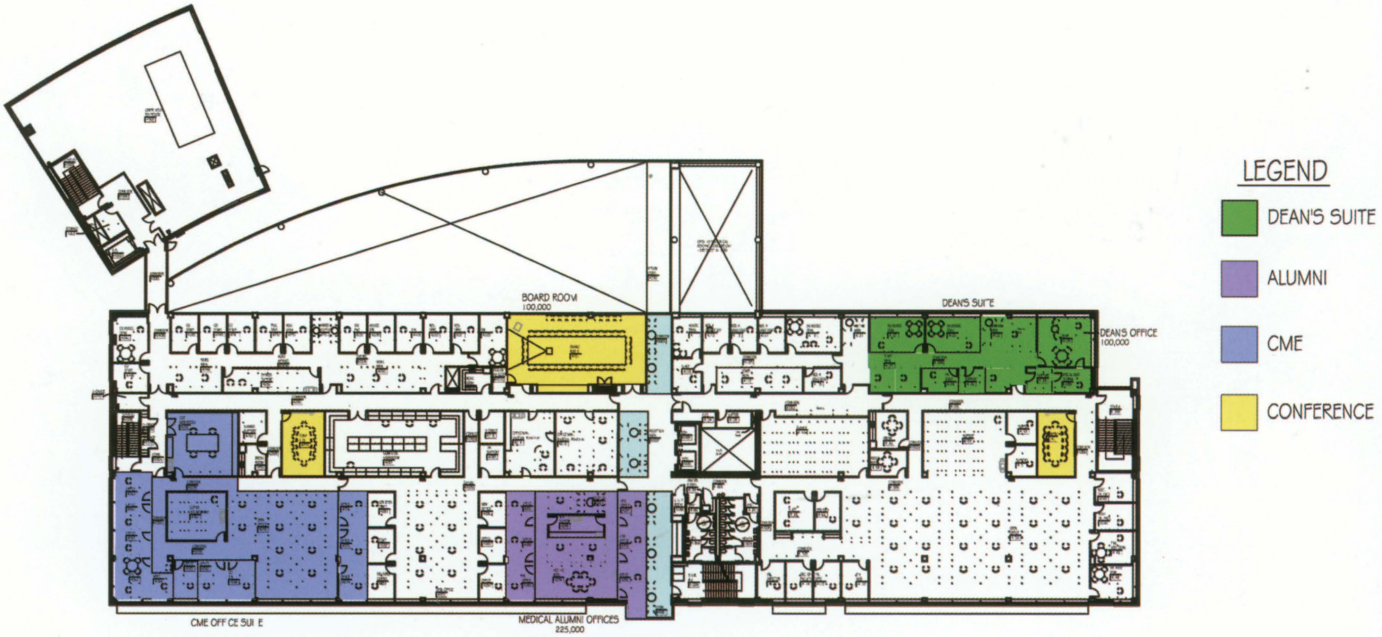


THIRD FLOOR PLAN
NOT TO SCALE

William S. Middleton, Alice McPherson and Adolf and Gunnar Gundersen, the Learning Communities offer medical students a home away from home. Mailboxes and lockers are located here, and students have passkeys that provide access to a safe place to study day or night.

Each Learning Community consists of a large classroom, two large study rooms, a smaller study room and a student lounge. Medical School classes, and individual alumni and faculty have been most interested in naming these areas, which range from $50,000-$10,000 for a recognition opportunity. We still have rooms to name, but they are going fast!

From the second level of the atrium, we enter the library, which is the "heart" of the HSLC. Named for devoted Medical School alumnus Paul Ebling, MD '55, (see pages 16-19 for stories), and his family, the two-floor, 50,000-square-foot facility houses the campus' merged health sciences libraries, drawing



FOURTH FLOOR PLAN
NOT TO SCALE

students and faculty from across campus for research and study. Visitors may have a hard time taking their eyes off the sailboats on Lake Mendota during fair weather.

In addition to books and journals, the library offers computer-ready research work stations, a multimedia digital laboratory for developing Web-based curriculum, electronic desktop document delivery and the ability to call up live video reference.

Third Floor

On the third floor of the library, we find the "Rare Books Collections," which contain some of the oldest, most valuable historical publications in the world. Around the corner on the same floor, we are drawn into the William S. Middleton Reading Room. This comfortable space displays memorabilia and artifacts from the life and times of Middleton, the Medical School's third dean. The room offers visitors a quiet place for contemplative reading.

Fourth Floor

On the fourth floor of the building, we view several administrative offices. Karen Peterson, alumni association executive director, greets us in the WMAA suite, where we find the ever-present candy bowl, headquarters for student groups and the *Quarterly* office. In addition to offices of the executive director and staff, the suite includes a reception area and conference room. This area is one of our most exciting fund-raising projects. With a goal of $225,000, we are half way there. Won't you help support the team that keeps you in touch with your school?

I hope that you will come by and view the actual construction of the HSLC or watch the progress on the Medical School Web site: www.med.wisc.edu/

Please call me at (608) 262-9409, if you are interested in a recognition opportunity. It would be a pleasure to work with you to create your legacy in the new Health Sciences Learning Center.

Cobalt offers first stock sale

by Linda Dietrich

In June, 1999, Blue Cross & Blue Shield United of Wisconsin announced its intention to convert to a for-profit corporation and to use the proceeds of the conversion to improve the health of Wisconsin. The funds were to be split between the state's two medical schools, which were charged with using them to address Wisconsin's population health problems.

On February 4, 2003, 5.5 million shares of Cobalt Corporation stock realized approximately $62.7 million, which will be equally divided between University of Wisconsin Medical School and the Medical College of Wisconsin (MCW). A secondary sale of approximately 800,000 shares in mid-February brought UW Medical School's portion of the total initial distribution to $36 million.

Wisconsin United for Health Foundation, Inc. will hold funds from this, and future sales, until UW Medical School's expenditure plan is approved by its Oversight and Advisory Committee and the UW System Board of Regents. Approval is anticipated in spring, 2003. Following approval, implementation of the plan, including distribution of funds, will occur during the summer and fall of 2003.

"This initial distribution signals the next step in fulfilling the promise of the Blue Cross/Blue Shield vision," says UW Medical School Dean Philip M. Farrell, MD, PhD. "It reaffirms the goals of Blue Cross/Blue Shield leaders and the directives of the state insurance commissioner's order recognizing that UW Medical School and MCW will serve well as the stewards of these funds."

The funds offer UW Medical School an unprecedented opportunity to create innovative community and academic partnerships that will affect the long-term health and well being of the people of Wisconsin, adds Farrell. "They will enable the school to advance creative new ways of understanding and improving the health needs of the state's rural, urban and tribal areas, helping make Wisconsin the nation's healthiest state."

D'Alessandro appointed to transplant advisory council

Anthony D'Alessandro, MD

by Dian Land

Health and Human Services (HHS) Secretary Tommy G. Thompson recently announced that University of Wisconsin Medical School's Anthony D'Alessandro, MD, has been appointed to the National Advisory Allergy and Infectious Diseases Council.

The council is the principal advisory body of the National Institute of Allergy and Infectious Diseases (NIAID), a component of the National Institutes of Health within HHS. It provides recommendations on the conduct and support of research, including training young scientists and disseminating health information derived from NIAID research.

D'Alessandro, a professor of surgery, is director of multi-organ transplantation and executive director of the Organ Procurement Organization at UW Medical School and UW Hospital and Clinics. He also was assigned to the NIAID's Division of Allergy, Immunology and Transplantation subcommittee.

He has been actively involved with the United Network for Organ Sharing, having served on many committees and as Region 7 councilor. He currently is an at-large representative on the board of directors. D'Alessandro belongs to many professional societies and has published extensively in transplantation.

The council is composed of physicians, scientists and representatives of the public who contribute their time and expertise for a four-year term.

Wood heads new dermatology department

Gary Wood, MD

by Jonathan Sender

Gary Wood, MD, recently became chair of a newly established Department of Dermatology at University of Wisconsin Medical School.

"Dermatology is a well-defined discipline in terms of the medical school curriculum, residency training, research and clinical practice," says UW Medical School Dean Philip Farrell, MD, PhD. "Sustaining a top-tier dermatology program with departmental status puts UW Medical School on par with other leading universities." Modern dermatology is as much a surgical specialty as a medical specialty, Farrell adds.

Wood, who took on the new leadership position last summer, is leading initiatives to create one of the premier departments in the nation. He plans to build on a faculty already recognized for excellence in teaching and patient care. His plans include establishing a cutting-edge dermatopathology laboratory and expanding research and teaching functions.

"We are fortunate to have Dr. Wood providing the leadership and vision for the dermatology department," comments Farrell. "His reputation, both as a dermatologist and as a leader in research, is stellar."

Prior to joining the UW faculty, Wood was vice chair of dermatology at Case Western Reserve University Medical School. He is internationally known as a clinician and researcher. His clinical and research specialty areas include work in cutaneous lymphoma, dermatopathology, immunopathology, molecular diagnostics, melanoma and Mohs micrographic surgery.

"We are committed to becoming one of the outstanding academic dermatology programs in the nation through the development of the full range of dermatological subspecial-

ties, including cutaneous medicine, surgery and pathology," says Wood.

Wood noted that an ambitious and successful recruitment strategy had resulted in the new department's leap into the top 10 in terms of National Institutes of Health grants —funding aimed primarily at research in cancer inflammation. "We are also in the process of establishing a new dermatopathology laboratory, which would offer unique clinical and research opportunities to the state and region," he says.

Wood is a 1975 cum laude graduate of Northwestern University, and received his medical degree from the University of Illinois College of Medicine at Chicago in 1979. He completed his residency in anatomic pathology and dermatology at Stanford University School of Medicine.

Included in rankings of the nation's top doctors, Wood is a member of numerous professional organizations. He has lectured and published widely and has served on several editorial and committee boards.

Vogelman receives "Courage to Teach" award

Bennett S. Vogelman, MD

by Dian Land

Bennett S. Vogelman, MD, University of Wisconsin Medical School professor of medicine and director of the Internal Medicine Residency Program, recently received the Parker J. Palmer "Courage to Teach" award, the highest honor given by the Accreditation Council for Graduate Medical Education (ACGME).

The newly created award honors the best of the nation's 7,800 post-graduate medical residency program directors —those who have shown their commitment to graduate medical education through outstanding work in mentoring and teaching physicians-in-training, and developing and improving residency programs. Only 100 of the awards will be bestowed in the next decade; Vogelman was among the first 20 to receive the award in Chicago on February 12, 2003.

The award is named after Parker J. Palmer, PhD, a sociologist and educator who wrote *The Courage to Teach,* a book about the intellectual, emotional and spiritual aspects of teaching.

Palmer developed an education program for elementary and high school teachers that has served as a model for teachers of physicians.

Vogelman first exhibited the courage to teach early in his medical career when he chose to leave the tenure track to devote himself to teaching. Before the switch, he had his own funded research program on antimicrobial pharmacokinetics and pharmacodynamics in animal models of infection, work that had produced a number of published papers under the mentorship of William Craig, MD, UW Medical School professor of medicine.

"I found that I loved teaching, and that I wanted to teach as much as I could," he says. "But I noted that virtually no one gets tenure if you solely teach."

Vogelman completed his residency, chief residency and an infectious disease fellowship at UW Hospital and Clinics and William S. Middleton Veterans Hospital. He earned his medical degree from the State University of New York at Buffalo, graduating Alpha Omega Alpha.

In addition to directing UW's large internal medicine residency program, which offers 40 percent of the school's pre-clinical courses, major undergraduate medical clerkships, 12 fellowships and many continuing medical education courses, Vogelman is senior associate chair for education in the Department of Medicine. He does hands-on preclinical and clinical teaching everyday, guiding learners ranging from second- and third-year medical students, to residents, fellows and practicing physicians.

Board certified in internal medicine and infectious disease, Vogelman concentrates on HIV and infectious diseases in his clinical practice.

He has received the UW-Madison Chancellor's Award for Excellence in Teaching as well as many Medical School and departmental teaching awards.

Milwaukee Winter Event

Nearly 120 people attended the Wisconsin Medical Alumni Association's (WMAA) Milwaukee Winter Event on February 27, 2003, a record number for the annual get-together. The event has become more popular than ever as an off-season opportunity for alumni and friends of UW Medical School to connect.

This year, due to the untimely death of alumna Laurel Blair Salton Clark, MD '87, on the Space Shuttle Columbia, the evening featured a moving pre-dinner program in her honor. Classmates Drs. Matthew Solberg, Mark Hallett, Joan McGrath and Lori Nelson Heinrich shared fond memories of Clark, recalling special times they had spent with her during and after medical school.

Medical School Assistant Dean Selma Van Eyck, PhD, who had remained a friend of Clark's since they first met at the school in 1983, also paid a tribute. She also pointed out that some of the key qualities that led to Clark's success as an astronaut were the same qualities medical school admissions committee's search for in their candidates—scholarship, curiosity, leadership, drive, confidence. She reminded Clark's classmates who were present that most of them also possess those qualities.

Dean Philip Farrell announced that the WMAA and the Medical School have created two initiatives to memorialize Clark and her achievements: the Laurel Clark scholarship fund and the Laurel Clark room in the Health Sciences Learning Center. Alumni and friends were—and are—encouraged to consider giving to either or both of these memorials.

Farrell also announced that Dr. John Harting, chair of the UW Department of Anatomy, will be the first recipient of the new WMAA Distinguished Professorship. The award honors an individual who has shown a high level of achievement, commitment and leadership over an entire educational career. Harting, who is widely acknowledged to be an outstanding teacher, will receive a stipend to further his teaching career.

In keeping with tradition, a continuing medical education program followed dinner. Farrell and Michael Sussman, PhD, director of the UW-Madison Biotechnology Center, presented "The Genomic Revolution: Biology and Technology Finally Tie the Knot and Create Molecular Medicine." The program was a preview of the international symposium UW Medical School is organizing to highlight the scientific advances that have occurred in the past 50 years since the pivotal discovery of the double helix (see story on page 46). The meeting will be held May 20-23.

Vice Dean Paul DeLuca (right) visits with Medical School Advisory Council members Gordon Connor (left) and Sheldon Lubar and his wife, Marianne.

Medical students Mike Cullen (Med I), Kim Kegel and Brian Arndt (Med IIs) join Bill Nietert, MD '78 (center), and his daughter, Elizabeth. Nietert is president-elect of the WMAA board of directors.

(above) Many classmates, family members and friends of Laurel Clark were on hand for the winter event, which included a moving tribute to Clark. Standing in the back row from left to right: Mark Aasen ('87), Douglas Peasley ('87), Mary Hollister ('88), Mark Hollister ('87), Monsoor Shariff ('87), Dave Stein ('87), Matthew Solberg ('87), Scott Aschenbrenner ('87) and John Heinrich ('88). Sitting: MaryBeth Aasen, Joan McGrath ('87), June Salton, Dan Salton, Lynn Rusy ('87), Mary Beth Barr ('87), Lori Heinrich (87).

(left) Medical students Malika Siker (Med II), Mike Cullen (Med I), Mathew Aschbrenner (Med I) and Brian Haugen (Med II) visit with Med I class mentor, Sandra Osborn, MD '70 (second from left).

Matthew Solberg, Class of 1987 class representative, remembers classmate Laurel Blair Salton Clark during the evening tribute to her.

John Harting (right), anatomy department chair, was named the first recipient of the WMAA Distinguished Professorship. Samip Kothari, Med II, joins him at the Milwaukee event.

Third-year medical students on an obstetrics/gynecology rotation in Milwaukee also attended the winter event. From left are: Deborah Wu, Dan Van Handel, Cody Boyce, Kary Davidson, Kathleen Mattioli, Rachel Lamb, Jessica Vorpahl and Tracy Capes.

Class Notes

compiled by Kathleen Freimuth

1947

From 1980 until his retirement in 2001, **Clint Tempereau** served as chief of psychiatric services at the Grossman Burn Center—formerly Sherman Oaks Burn Center—in Sherman Oaks, CA. His many years of professional focus on crisis intervention stemmed from his tour of duty in Korea, when he served as chief of psychiatry for the Fifth Air Force and took part in Operation Big Switch, involving a trade of American POWs for North Korean POWs. This sparked his interest in trauma psychiatry. He and his wife, Kim Hak Jue, who is a former Korean ballerina, live in Northridge, CA, and will be celebrating their 50th wedding anniversary in July 2004.

1951

Donald S. Schuster (above) was recently honored by UW Medical School Department of Dermatology residents for his contributions "toward education and scholarly activity." Schuster was in charge of the Class of 1951 gift to the Medical School, which was featured in the last *Quarterly*.

1952

Herbert F. Sandmire maintains a gynecology practice and sometimes serves as an expert witness for fellow practitioners.

1958

Ada May Anderson interned and completed a psychiatry residency in Los Angeles. She married another psychiatry resident, and together—after both sought additional psychoanalytic training in LA—they established a private psychiatry practice in La Jolla, CA. Her husband has now retired, but she continues to see patients 25 to 30 hours a week. They have two sons and three grandchildren.

John Weiss, a clinical pediatric professor at the University of Southern California-San Francisco Medical School, continues his full-time dermatology practice in Castro Valley. He resides in Oakland Hills, CA, and has two sons, one of whom will become a nephrologist in June 2003.

After an internship in Milwaukee, a pediatrics residency in Omaha, and service in the U. S. Air Force for two years, **Jim Wax** returned to Nebraska, where he has been with Omaha Children's Hospital for the past 11 years. He and his wife, Esther, have four children and 13 grandchildren. He will begin a part-time practice in May 2003.

1960

As a researcher at the Grand Forks Human Nutrition Research Center in North Dakota, **Leslie Klevay** has been awarded the Klaus Schwarz Commemorative Medal from the International Association of Bioinorganic Scientists for his leadership in trace element research. He also is a professor of internal medicine at the University of North Dakota and is best known for his discoveries on disruptions of biochemistry and physiology caused by copper deficiency.

1971

Douglas Kramer received a Master of Science degree in zoology from UW-Madison in December 2000.

1972

Samuel Cohen, professor of oncology and chair of the Department of Pathology and Microbiology at the University of Nebraska Medical Center in Omaha, has been appointed to the National Toxicology Program's board of scientific counselors by Secretary of Health and Human Services Tommy G. Thompson. His research on saccharin was instrumental in the federal government's decision in 2000 to drop the substance from its list of cancer-causing chemicals.

1976

Formerly a staff physician at the Cleveland Clinic Foundation in the Department of General Internal Medicine, **Edward Horvath** accepted a position as medical director of Global Healthcare and Medical Operations for the General Electric Company in Cleveland. He presently resides in Bay Village, OH.

1977

When AmeriPath moved the Center of Advanced Diagnostics to Orlando, FL, **Randy Judd** was appointed director of its immunohistochemistry and image analysis unit. He and his wife, Cathy Rustin, along with their two children, Robert and Jessie, consider the move auspicious: They all love living so near Orlando Mickey!

1982

Following a residency at the University of Miami, **Lawrence Burns** joined an otolaryngology practice based in Plantation, FL, where he has worked for the last 15 years. Recently, he was named chief of surgery at his primary facility, Plantation General Hospital. He resides in Fort Lauderdale with his two boys, Tom and Max, and enjoys his favorite outdoor activities: golf, tropical fruit tree gardening, fishing and hunting.

1988

Carol Uebelacker (above) of Delafield, WI, was elected president of the Waukesha County Medical Society at its annual meeting in June 2002. A family physician who owns and operates Health Directions, she has practiced in Delafield for the past 11 years, continuing to integrate both traditional and alternative forms of medicine in her practice.

1989

Jon Cherney moved to Appleton, WI, to join North East Wisconsin Center for Surgery and Rehabilitation of the Hand, Ltd.

1996

Michael Foley of Madison, WI, recently was declared a diplomate of the American Board of Emergency Medicine. He currently is a staff physician in the Department of Emergency Medicine at St. Mary's Hospital Medical Center and is also a flight physician with Med Flight—UW Hospital's aeromedical transport for critically ill or injured patients.

Correction

Our sincerest apologies to **Neil Hoffman, MD '67**, who was featured in our winter 2003 Class Notes. In the picture we used, we mistakenly showed Michael J. Prendergast, MD, chairman of the Board of Trustees of the Pennsylvania Medical Society. Prendergast was handing Hoffman the 2002 Pennsylvania Medical Society Physician Award for International Voluntary Service. The real Dr. Hoffman appears above.

Omission

In our winter *Quarterly* piece on the White Coat Ceremony, we omitted the important fact that the State Medical Society of Wisconsin is a partner in this milestone event for UW Medical School students.

In Memoriam

Warren E. Gilson, MD '40

Warren E. Gilson, MD '40, died of heart failure on November 4, 2002, in Madison, Wisconsin. Gilson distinguished himself with his ability to design, develop and improve biomedical instrumentation and equipment.

He created Gilson, Inc., a leading manufacturer of specialized analytical instrumentation for the pharmaceutical and biotechnology industries. Since its founding in the early 1950s, Gilson, Inc. expanded to employ more than 500 people worldwide, with operations in several European countries in addition to its home in Middleton, Wisconsin. Robert Gilson, MD '73, is now president of the company.

Gilson, who had been a faculty member of the UW Medical School Department of Neurology through 1965, left a gift of more than $2 million to the Wisconsin Alumni Research Foundation (WARF). The gift, he indicated in his will, is designed to express his appreciation for the help and camaraderie that he received from the university community throughout his lifetime.

"My father kept close ties to the UW-Madison and was deeply appreciative of the assistance he received from the many university scientists who were his friends, advisers and customers," says Gilson.

The Gilson family has requested that WARF use a portion of the funds to support entrepreneurship and the exchange of ideas between the university and small businesses in Wisconsin.

Vernon Burch '43
January 1, 2003
Racine, Wisconsin

Arthur O. Stiennon '43
December 10, 2002
Madison, Wisconsin

Frances Grimstad '37
January 21, 2003
Manitowoc, Wisconsin

George L. Voelz '50
January 31, 2003
Albuquerque, New Mexico

Jay Keepman '49
July 14, 2002
Grantsburg, Wisconsin

Class Representatives

John Bryant Wyman, MD

Class: 1958

Type of practice: Academic gastroenterology, University of Wisconsin Medical School

Fondest memories of Med School: Singing in Medichoir and with the Rigoletto Quartet. Singing in the Phi Chi basement on party nights, ukelele and all! The picnic on Graduation Day with classmates and their families.

Hobbies/interests: Reading, walking, fishing, e-mailing mates. Maintaining and enjoying a northwest Wisconsin summer home. Studying and traveling in Australia. Studying the enteric nervous system and learning of its diseases. Watching the grandchildren grow and develop.

Faculty member remembered the most and why: Dr. Lalich, pathology—because he attended Phi Chi functions and would sit with students to discuss various and sundry issues and problems.

Message to classmates: Please come to Madison in May 2003 for our 45th reunion and pledge to NOT MISS our 50th reunion in 2008!

Plans for a reunion: Now in planning stage for May 10, 2003.

Henry C. Rahr, MD

Class: 1958

Type of practice: Family practice

Fondest memory of Med School: Dr. Bast with his cigarette! Dr. Meyer with his lapel flower!

Hobbies/interests: Family—wife, four children, eight grandchildren. Golf, photography, gardening, Packer football.

Other news: Won a nasty battle against rectal cancer. Working half time until fourth partner arrives.

Faculty member remembered the most and why: Dr. Sullivan—we always had cadavers for anatomy.

Message to classmates: See you at the reunion!

Plans for a reunion: Our class reunion will be held on Saturday, May 10th.

George Kindschi, MD

Class: 1968

Type of practice: Pathology (anatomic, clinical and dermatopathology)

Fondest memory of Med School: Meeting my future wife. My second fondest memory is making rounds with Dr. Middleton at the VA hospital that now bears his name. When he asked a medical student a question, there were two correct answers: the right answer and "I don't know." When you said, "I don't know" (as I often did), he looked you straight in the eye and replied, "That is correct." This meant that you were correct in the fact that you didn't know and that you darn well better know tomorrow. It was a great learning experience.

Hobbies/interests: Old radio from the '30s, '40s and '50s. Reading, especially history. Golf, coin collecting and some gardening. My five grandchildren are not a hobby or an interest, they are an all-consuming passion.

Other news: The light at the end of the tunnel is getting brighter every day and it is not an onrushing train. Retirement is on the near horizon.

Faculty member remembered the most and why: Dr. Stan Inhorn. His example helped to guide me into a career in pathology that I have never regretted.

Message to classmates: Please make every effort to attend our 35th anniversary reunion in May. Although our numbers have not diminished greatly over the years, age is creeping up on us. Remember, growing old is mandatory. Life is kinda like a roll of toilet paper. The closer you come to the end, the faster it goes.

Plans for a reunion: Saturday, May 10 at the Madison Club, in conjunction with Alumni Weekend. We'll talk, listen, show pictures and just have a great time.

Patrick J. Fahey, MD

Class: 1973

Type of practice: Chairman of the Department of Medicine, Loyola University Medical Center, Chicago

Sharpest memory while at Med School? Tear gas wafting through Bardeen Hall during final exams in spring 1974.

Hobbies/interests: Despite being Chicago-based for 23 years, we have kept strong Wisconsin ties through football tickets and farmers market days.

Other news: We have a home on Washington Island with glorious summers spent there and increasingly cold winter weekends. We live in a 1901 Frank Lloyd Wright gem and are busy with architectural types from around the country.

Faculty member remembered the most and why: Dr. Brian Taylor was my role model. He was a kind and gracious physician who cared personally for each VA patient and always had time for students.

Message to classmates: Please make an attempt to join us. We were MIA five years ago. We have many cherished and unique experiences in common. Come and share camaraderie and rekindle friendships from long ago.

Plans for a reunion: Our 30th anniversary will be held Saturday, May 10 at the Madison Club.

Russ Lewis writes

Last fall, I received a letter from George Magnin, MD '46, a retired internist. In the letter, he said the following:

Dear Russ,

I am writing to you, your being chair of the Editorial Board of the *Quarterly*. As a student of Drs. William S. Middleton and Ovid O. Meyer, I cringe with embarrassment when I see a physician examining a patient with a stethoscope through clothing. Please see the photograph on page 30 of *Quarterly* Volume 4, Fall 2002. I hope you will see fit to publish this comment.

Very good wishes,
George Magnin

Having sat through countless enjoyable sessions with other retired physicians in many different places and settings, I find we always end up agreeing that we practiced medicine during the "Golden Years." To me, that means that in our day medicine was an art and a profession, whereas today it appears that it is much more about technology and business. We frankly concede that today's doctors are providing better all-around care, but we old-timers certainly had much more fun back in the days when we were the boss of our practice, even when we worked in large groups.

Our strongest teachers, such as Middleton, Meyer and many others, established values we cannot relinquish. As George points out in his letter, it is upsetting to have medical personnel listen to our chest or abdomen, or take blood pressure, through clothing. My pet peeve as an old obstetrics man is having my weight taken with no concern for the amount of clothing I have on. Accurate weight was such an important consideration for my prenatal patients.

We still believe in many of Dr. Middleton's sayings, such as (to paraphrase):

Quality of character and judgment are more important than mere intellectual attainment in the practice of medicine.

and

The complete physical examination remains the most essential ingredient in the comprehension of the patient by the physician. Quietly with efficient thoroughness he or she will convey the comforting assurance of his or her interest in competence.

But sometimes I think, "George, what do I know?" This occurred to me recently when I visited you in the hospital and found the nurse's aide putting something that looked like an otoscope in your ear. You both then told me it was a thermometer and that was the way they took your temperature today.

George, we old-timers do agree with you. And we will until someone proves us wrong.

Continuing Medical Education Conferences

DNA Symposium
May 20-23, Madison

Emergency Care Conference
June 11-13, Wisconsin Dells

Update in Cardiology
June 18-29, Baltic Heritage Cruise

Osteoporosis
June 27, Madison

Practical Imaging & Intervention
July 6-11, Manitoba, Canada

Short Course on Clinical Research
July 30-August 1, Madison

Comprehensive Pain Review
July 31-August 3, Madison

Physician assessment and individualized CME programs

by Rhonda Dix

In response to requests by the Wisconsin Medical Examining Board in 1986, the University of Wisconsin Medical School Office of Continuing Medical Education (OCME) developed systems by which various aspects of physicians' abilities can be assessed within the unique profile of the physician's practice. The assessments are based on the opinions of three of four peers (academic and community) who: review and discuss selected records from the physician's practice with the physician, discuss the physician's answers to practice-profile-based test questions and review videotaped encounters with standardized patients.

Individualized education programs are developed to meet any needs that are detected using the resources of UW Medical School as well as appropriate resources closer to the physicians' practices. Individualized CME programs are also developed at the request of physicians who find that they have unique needs.

The OCME also offers Practice Risk Management Assessment and counseling for physicians who experience adverse events in their practices. In addition, an individualized Medical Record Keeping course allows physicians to upgrade their hospital and office records under supervision.

Only four other facilities in the country offer similar programs. By law, all provinces in Canada are required to provide programs for physicians in their jurisdictions. The growth of managed care and government oversight in the United States may increase the need for these types of programs.

For more information, see the OCME Web site at www.cme.wisc.edu/physicianassmt.html, or call Cathy Means at (608) 263-6637 and ask to have one of the physician co-directors return your call at a convenient time.

For a complete list of other CME offerings—conferences, home study, Internet courses, PICME, and visiting fellowship programs—go to the CME homepage at www.cme.wisc.edu.

Center for Integrative Medicine director to speak at "Day on Campus"

by Lauren Dettloff

David Rakel, MD, director of the UW Health Center for Integrative Medicine, will be the featured speaker at University of Wisconsin-Madison Day on Campus, Friday, May 9. In his presentation, "Integrative Medicine: A New Approach in Health Care," Rakel will describe how integrative medicine concentrates on a healing-oriented model instead of the traditional disease-focused one.

An assistant professor in the UW Medical School Department of Family Medicine, Rakel is board-certified in both family practice and holistic medicine and is the author of a new text, *Integrative Medicine.* He uses the term "integrative" to most accurately convey what his center is trying to accomplish.

"'Alternative' isn't an ideal term, because it connotes something other than science- or evidence-based medicine. It suggests that you're doing something other than the conventional approach, which can often be dangerous," says Rakel. "With integrative medicine, we can take traditional medicine, and the great strides we have made studying the body through a science-based approach, and combine that success with services that may be more consistent with the healing arts."

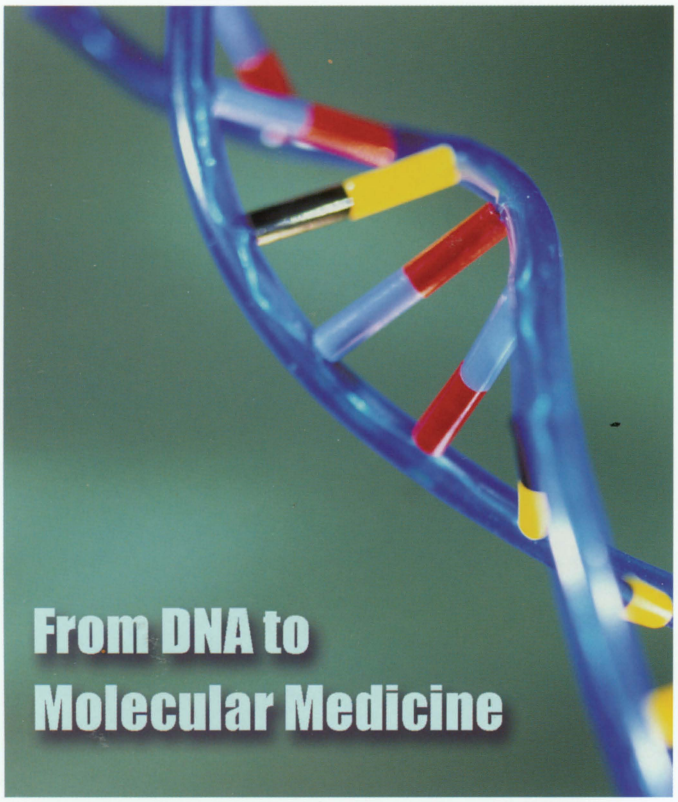
The public's interest in integrative medicine has increased rapidly over the past 10 years. Patient response to Rakel's arrival and the opening of the center in the past year has been outstanding.

Rakel provides medical assessments for people who want a recommendation for disease prevention, longevity, wellness or life enhancement, as well as people who suffer from complex medical conditions such as cancer, chronic pain or fatigue, autoimmune disease, heart disease or other chronic illness. He incorporates both traditional, science-based medicine and the healing arts to help individuals find a better balance that will result in long-term health. "This is an approach that recognizes the uniqueness of the individual with a disease. It defines the centering approach of integrative medicine," he says.

Rakel received his medical degree from Baylor College of Medicine and completed his residency at North Colorado Family Medicine in Greeley, Colorado, where he served as chief resident and was awarded resident teacher of the year. After five years in rural Idaho, Rakel completed a two-year fellowship in integrative medicine with Andrew Weil, MD, at the University of Arizona Health Sciences Center. Rakel also has a certificate of added qualification in sports medicine and is certified in interactive guided imagery.

David Rakel, MD, director of the Center for Integrative Medicine, visits with a patient.

International symposium to highlight revolutionary molecular advances



The discovery of the double helix by Watson and Crick occurred in 1953. In the ensuing 50 years, tremendous strides have fueled a revolution in genetics and molecular biology. Coupled with parallel advances in information technology, cutting edge discoveries and laboratory techniques have now enabled scientists to sequence the entire human genome. Together with progress in related disciplines, this burgeoning knowledge in genetics has led to the creation of a new discipline: molecular and personalized medicine.

At a University of Wisconsin Medical School. symposium called "From DNA to Molecular Medicine," experts from around the world will gather to discuss this new field and how it already is affecting people. The unique conference is intended to meet the needs of both scientists and clinicians, as the challenge of transferring novel discoveries to the bedside in a just and ethical manner demands communication between both groups.

The symposium will be held May 20-23 in the Wisconsin Union Theater and Tripp Commons in the Wisconsin Memorial Union, 800 Langdon Street, and the Pyle Center, 702 Langdon Street, in Madison.

A stellar roster of 38 presenters will include many UW Medical School and UW-Madison faculty members, as well as visiting international faculty. They will participate in sessions addressing issues such as cancer biology and cytogenetics, molecular evolution, neuroscience, cardiac arrhythmias, and metabolic and developmental disorders. Physicians and healthcare professionals will have the opportunity to learn about new applications that have recently been developed.

The symposium will feature continuing medical education portions offering a maximum of 21 category 1 CME credit. The CME portions of the symposium are designed to be useful to physicians and other healthcare professionals in several ways. They will help them: appreciate the role of genomics and genetics in 21st century medicine and begin to integrate the two fields into their own medical practices; understand how cutting edge molecular techniques are currently being used to screen populations, diagnose illness, and individualize treatment of medical conditions in Wisconsin and beyond; refresh their genetics knowledge base and immerse themselves in the current state-of-the-art molecular medicine; and grapple with the ethical aspects of personalized medicine, including issues pertaining to patient confidentiality, informed consent, ownership of databases that contain genetic information and genetic counseling.

For more information, contact Terese Bailey at CME, (608) 262-1211 or tmbailey@wisc.edu.

Call for nominations for 2004 WMAA Awards

The Wisconsin Medical Alumni Association (WMAA) Awards Committee invites you to nominate your colleagues and classmates for consideration for the 2004 WMAA awards listed below. Medical School alumni, faculty and staff, as well as other professional colleagues, may submit nominations. Complete nominations should include the following:

- A letter stating the award for which the nomination is submitted, outlining in detail the nominee's qualifications
- The nominee's curriculum vitae, including current address and phone number
- Secondary letters or materials in support of the nomination, if available

Medical Alumni Citation Award

The award honors a Medical School alumnus who has achieved distinction in medicine. Achievement is recognized through excellence in medical practice, academic activities and research accomplishments.

Medical Alumni Service Award

The award recognizes outstanding service to the WMAA. It is offered to an alumnus who has exhibited exceptional commitment to the association over a period of years.

Ralph Hawley Distinguished Service Award

The award is conferred on an alumnus who has made outstanding contributions to the local community through medical practice, teaching, research or other humanitarian activities.

WMAA Honorary Life Membership

The award honors a UW Medical School or UW Hospital and Clinics employee who has been particularly supportive of and helpful to students and alumni.

Submit nominations to:

Karen S. Peterson, Executive Director
Wisconsin Medical Alumni Association
4245 Medical Sciences Center
1300 University Avenue
Madison, WI 53706-1532

We want to hear from you

Please send us information about your honors received, appointments, career advancements, publications, volunteer work and other activities of interest. We'll include your news in the Alumni Notebook section of the *Quarterly* as space allows. Please include names, dates and location. ***Photographs are welcome.***

Name _____ Year_____

Home Address_____

City_____ State_____ Zip_____

Email Address _____

Recent Activities _____

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Have you moved?

Please send us your new address.
Mail to: Wisconsin Medical Alumni Association
1300 University Avenue, Room 4245
Madison, WI 53706

Rather connect by computer?

Please send your information to us at:
www.med.wisc.edu/Alumni/stayconnected.asp

Observations

The trees extending along State Street to the Capitol were just budding in this spring picture taken by Jeff Miller, but food vendors in front of Memorial Library already were doing a brisk business after a winter of inactivity.

Photo: Jeff Miller/UW-Madison University Communications

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