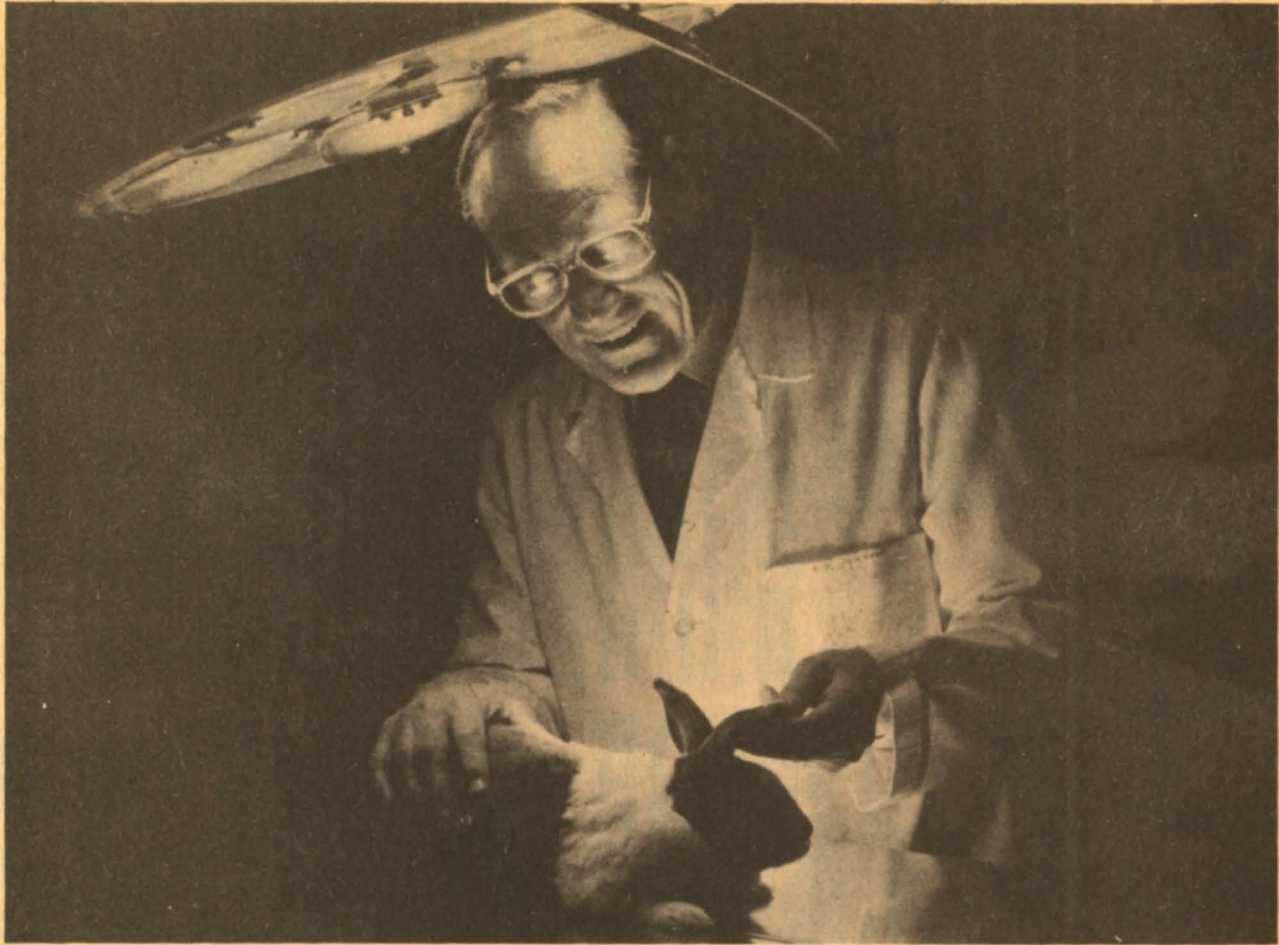


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The University of Minnesota Duluth

BRIDGE

Spring

For Alumni and Friends of UMD

1984

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CANCER RESEARCH

The University of Minnesota Duluth Bridge

Page 1

UMD Professor is Making Progress

"It's in the back of our minds that if we can increase the immune response, we may be able to increase immunity against cancer."

by Carole Jaworski

Some 500 years after Ponce de Leon searched unsuccessfully for the Fountain of Youth, a UMD researcher may be on the right track. And it isn't water that's causing the stir this time, but a new synthetic, non-toxic compound with the unwieldy name of polyadenylic-poly-uridylic acid complex.

As a person grows older, the body's immune system deteriorates and the body becomes more susceptible to disease. For the past 10 years, Arthur Johnson, head of the Department of Medical Microbiology and Immunology at UMD's School of Medicine, along with his students, has been studying the breakdown of the immune system with age and the effect that this drug has on it.

In experiments with mice--in human equivalents, about 60 to 80 years old--Johnson and his students were able to reverse the breakdown of immunity with age.

By the use of this compound, which stimulates the immune system, Johnson and his students were able to generate about a 60 percent increase in immunity among older mice.

The implications of Johnson's findings may be significant, particularly in the fields of infectious diseases, cancer and immunodeficiency diseases.

Take cancer as an example.

Like other degenerative diseases, the incidence of cancer rises dramatically with age. "It's in the back of our minds that if we can increase the immune response, we may be able to increase immunity against cancer," Johnson said.

Research along those lines has already taken place--with positive results.

In an eight-year study in France from 1972-81, this same drug, along with traditional chemotherapy treatment, was given to 155 women afflicted with mammary tumors. After five years, the drug was shown to have

increased the relapse-free survival rate of the women by 24 percent--even though the dose of the drug administered was very low.

What the drug appears to do is halt metastasis, the spread of cancer from one site to another.

"What we think happens is that, in cancer, the tumor load normally overwhelms the immune system," Johnson said. "But if we remove most of the tumor load through surgery and then stimulate the immune system to respond, it might eliminate the tumor cells that are left."

It appears the drug aids in a "mopping up" of any cancerous cells left following surgery. It is these cells, which may escape and spread to other sites, that can cause problems for a patient.

The trial of the drug in France was very well conducted, Johnson said. The

scientists didn't look at the results, initially, for five years. "We now have eight-year results and the findings are still the same, with the best results occurring in patients with positive lymph nodes," he said.

Because of the extensive 10-year animal documentation of the drug already conducted by Johnson and the French, the U.S. National Cancer Institute is expected to begin a trial of the drug soon on humans at Fort Detrick, Maryland, in what is known as the Biological Response Modifier's Program.

Johnson has already supplied them with the compound.

Use of the drug is continuing, as well, in more hospitals in France under the direction of physicians Jean and Fanny Lacour and this time, the dose of the drug is being doubled.

But more may not necessarily be better, Johnson cautions.

"The effectiveness of any drug is best represented by a bell-shaped curve. There is an optimum, effective dose. Too little may not be effective enough; too much may also be ineffective," he said.

The problem is, if you activate the immune system too much, you may stimulate cancers of the immune cells themselves, or glomerulonephritis, which is an inflammation of the kidneys, he points out.

"I can name a half-dozen things the Food and Drug Administration would want to see dealt with before this compound became routinely available," he said.

Nevertheless, unlike some earlier drugs that showed promise in the fight against cancer and then turned out to

be too toxic for use in humans, this drug appears to be neither toxic to mice nor human beings, Johnson said.

Like most scientific progress, the events that led to the discovery of this compound did not occur overnight but spanned several decades.

While conducting research into endotoxins of bacteria at Walter Reed Hospital in Washington, D.C., in the 1950s, Johnson noted a strange phenomenon--the endotoxins, themselves very toxic, seemed to be inducing and increasing an immune response.

"This offered an explanation for the finding that, when you mix the three vaccines of diphtheria, pertussis and tetanus together in the DPT vaccine, you get a much greater immunity to all three diseases than by just using vaccines of each alone," Johnson said.

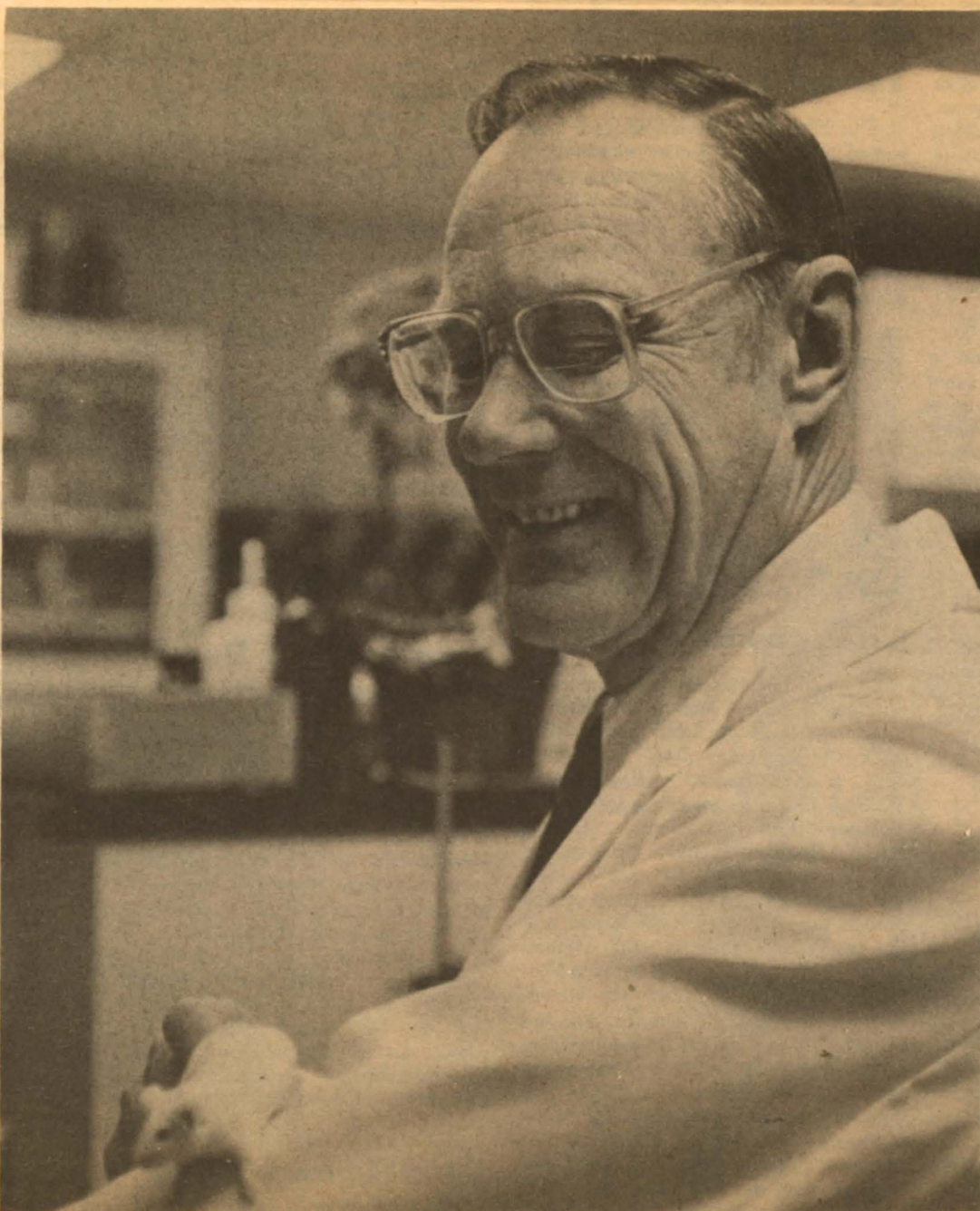
In the case of the DPT vaccine, an endotoxin present in pertussis was probably enhancing the immunity to the diphtheria and tetanus toxoids, he pointed out.

But even with the knowledge that endotoxins were somehow associated with an increased immune response, isolated endotoxins were too toxic for use in humans. Searching for the means as to how endotoxins stimulated this immunity, Johnson made another discovery--the endotoxins were serving merely as a catalyst. What was really happening was that the endotoxins were inducing the liberation of nucleic acids from the cells. And it was the nucleic acids--not the endotoxins--which were acting as the immune stimulus.

"We reasoned that these nucleic acids, alone, might work. And they did," he said.

Today, the synthetic form of the nucleic acid compound is used--primarily because it is purer and easier to obtain.

Johnson, soft-spoken and not given to overstatement, is able to keep all this in perspective. "If only I can find a cure for baldness, I'll have it made," he said.



UMD researcher Arthur Johnson and his students have used mice in their study of immune systems. By increasing the body's immune response, they hope to increase immunity against diseases like cancer.

Carole Jaworski, a writer in UMD's Campus Relations Office, specializes in the School of Medicine and the Natural Resources Research Institute.

Keeping Up • The Spring Bridge

Singers Present Elizabethan Dinners

UMD's University Singers will present the annual Feast of Spring "Elizabethan Dinners" at 7 p.m. March 23, 24, 30, 31, and at 4 p.m. March 25 and April 1 at the Kirby Student Center Ballroom. This year's dinners will feature a new menu. Tickets are \$12.50 per person and are available at the MPAC Box Office, 218-726-8561.



Winning Teams Mean Popular Activities

There seems to be a direct correlation between the success of the Bulldog sports teams and the attendance at Alumni Association activities! Over 250 UMD and Morris football fans gathered at Maggio's in Minneapolis on Nov. 20 to toast the first annual "Metrodome Classic." Forty-seven Milwaukee-area alumni and parents attended a reception and later watched the Bulldog hoopsters defeat UWM on Dec. 19. On Jan. 21, 68 Colorado alumni met in Colorado Springs at a reception before a UMD/Colorado College hockey game. And on Feb. 11, over 125 Bulldog hockey fans met at Stub & Herb's in Minneapolis before the Bulldog/Gopher hockey game.

Bush Foundation Funds Program

The Supportive Services Program at UMD has received a \$208,000 grant from the Bush Foundation to set up a program to assist UMD faculty members and other academic staff in "becoming more effective educators thus maximizing the impact of the instructor on the learning process." The program, to be called the Instructional Development Service, will help faculty members in such areas as examining course goals, evaluating instructional styles, exploring alternative instructional processes and looking at ways to adapt to the needs of students. Staff members working on the program will be Allen Greenbaum, director of the Supportive Services Program and Linda Hilsen and Bob Flagler, two instructors in the program.

NRRI Begins Work

The Natural Resources Research Institute (NRRI), awarded its first construction contract in December. The \$300,000 renovation contract was awarded to Northwest Roofing Contractors, Inc., a Duluth contracting firm, for re-roofing, insulating and leveling both the four-story and one-story sections of the NRRI building (formerly, the Duluth Air Force Base SAGE building). The re-roofing project is only the first phase in NRRI's renovation. Still to come are demolishing, renovation and remodeling jobs to the interior of the building with plans for laboratories, office space and a general pilot project area. Renovation of the building is expected to be completed by September.

Active UMD Faculty

George Rapp Jr., professor of geology and archaeology, and dean of the UMD College of Letters and Science, recently received the first national award by the Geological Society of America for pioneering research in archaeological geology. John W. Newstrom, professor of business administration at UMD, has been elected to the board of directors of the American Society for Training and Development, which is headquartered in Washington, D.C., and provides leadership and extensive services to more than 20,000 members nationwide.

Committees Are Busy

A review committee, chaired by Jeanne Lupton, dean of the General College on the Twin Cities campus, has been appointed by University President C. Peter Magrath to conduct a review of UMD Provost Robert Heller, who has been in that position since 1977. In accordance with UMD's constitution, he now is due for review. Reviews of certain collegiate deans also will be upcoming this year, according to officials. On related staff matters, search committees choosing heads for the new Department of Computer Engineering and the Natural Resources Research Institute, as well as a new vice provost for academic administration, have either made or are expected to make their recommendations soon to Heller. A search committee to select a new athletic director to replace the late Ralph Romano (see related story) is expected to be named after the winter sports season.

Tweed Tours Set

The Friends of Tweed sponsor free guided tours of the Tweed Museum of Art each Tuesday, Wednesday and Thursday at 1:30 p.m. In the photo below, Vicki Gullion, a Tweed docent from Cloquet, explains the history behind the Museum's collection of Will Barnett silkscreens.



Changes in WCHA

The WCHA made two important decisions in recent months that have a major impact on the UMD hockey program. The league has aligned itself with a new eastern hockey league called "Hockey East." Its members are Boston College, Boston University, Lowell, Maine, New Hampshire, Northeastern and Providence. UMD will play a week-end series with each of the eastern schools during the 1984-85 season and the results will count in both league's standings. The Bulldogs will travel to Boston University on Nov. 2-3, New Hampshire on Nov. 23-24, Northeastern on Dec. 14-15 and Boston College on Jan. 11-12. They play the three remaining eastern schools in Duluth. The WCHA also admitted Michigan Tech and Northern Michigan to the league. UMD will play home and away series with both the Huskies and the Wildcats next year. One casualty of the new eastern alignment and additional league teams is the Bulldog/Gopher rivalry. The two teams will meet only once in 1984-85, a week-end series Jan. 18-19 in Duluth.

MPAC Celebrates 10th Anniversary

UMD's Marshall Performing Arts Center celebrated its 10th anniversary in February. To mark the event, MPAC was the site of an auction and music and theatre performances Feb. 12. Other events will continue through the year.



Researchers Study Acidity History

Two UMD researchers are part of a three-year coordinated effort to study the history of acidity in various lakes throughout the U.S. and Canada in an attempt to understand the relationship between acid rain and lake acidity. A number of independent studies linking acid rain and the history of lake acidity have been done, but this is the first time a coordinated nationwide study is being conducted, according to John Kingston, a research associate in the Department of Geology at UMD who will be examining samples from 35 lakes in Minnesota, Wisconsin and Michigan, along with Robert Cook, a research associate in the Lake Superior Basin Studies Center at UMD. The research is being funded by the Electric Power Research Institute in Palo Alto, California--which wants to find out if there is a link between power company emissions during the past 50 years and lake acidification, Cook said.

SSD Dean Is Author

Burt Galaway, acting dean of the UMD School of Social Development, is co-author of a recently published bibliography on restitution and community service. Other co-authors of *Restitution and Community Service: An Annotated Bibliography*, are Joe Hudson, Office of the Auditor General of Canada, and former UMD student Steve Novack.

Computer Is Used In Jobs Service

UMD students are taking advantage of a new computer-assisted jobs and career planning service started in January which is the only one of its kind in the Twin Ports area. UMD's Counseling, Career Development and Placement Office has implemented a microcomputer career-planning package called Discover II which will give students "comprehensive, up-to-date information about careers, occupations and other higher education schools," according to Dean Kjolhaug, a staff member in the office. Students receive detailed information on hundreds of occupations and thousands of colleges through this program, Kjolhaug said.

KUMD Fund Drive

About \$13,000 was pledged by some 400 area residents for the operation of UMD's public radio station, KUMD-FM. The money was raised during the station's annual fall fund drive in October.

Waferboard Plant Topic of Study

"The Potential Impact from New Waferboard Plant Development in North-eastern Minnesota" is the subject of a report recently completed by Richard W. Lichty, professor of economics; David J. McMillan, research fellow at UMD; and Peter Stenberg, computer research assistant, University of Minnesota, St. Paul. The study shows that expansion of the waferboard industry will have a strong, positive effect on the region's economy -- boosting employment, output, exports and earnings.

Award to Honor Good Teaching

The Jean G. Blehart Distinguished Teaching Award, committed to the tradition of teaching excellence, has been established at UMD. The first recipient will be announced at spring commencement.

Popular Professor Dies in December

Lewis "Ace" Levang, 62, an English professor for 27 years at UMD, died in December in Duluth. Levang, who at the time of his death was a full professor of English, was an extremely popular instructor with students. Accordingly, this past year he received the Distinguished Faculty Award from UMD's Student Association. Levang also was a former head of the English Department and specialized in the literature of Shakespeare, although he taught a number of different literature courses. Surviving are his wife, Helen, and two sons, Mark of Duluth and Rex of Minneapolis. A memorial service for Levang was held in Duluth in January.



The University of Minnesota Duluth

BRIDGE

Volume 1, Number 2

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A REAL WOLFMAN?

The University of Minnesota Duluth Bridge

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Isle Royale is His Laboratory

by Darryl Sczepanski

You know there's something different about Rolf Peterson's office the minute you walk in. He looks like a casual biology professor in his flannel shirt and reddish beard, nothing wrong there. The office is cluttered with books and papers, nothing unusual there.

Then you realize that the strange odor you noticed isn't coming from the animal labs down the hall, but from the large stack of boxes in the corner of Peterson's office.

"Anything special in the boxes?" you ask. "Not really," Peterson said, "just a lot of moose skulls and bones sent to me by some colleagues in Alaska." As if he was reading your mind, Peterson admitted, "I know it's been several months now and they are getting a

bit ripe. I guess I should take care of them soon."

Anyone who works or teaches with Peterson at Michigan Technological University would not be surprised by the contents of the boxes. A 1970 UMD graduate, Peterson is often referred to as the "wolfman of Isle Royale" for his research on the predator/prey relationship between the wolves and moose on Isle Royale.

Although he grew up in Minneapolis, Peterson has spent the last 13 years of his life in the "wild" studying wolves and moose. "I attended UMD because I was interested in the outdoors," Peterson said. "I had been to Isle Royale and knew a little about the wolf research going on there, but it wasn't until I began my doctoral program at Purdue University that I came into close contact with the research."

Peterson's studies at Purdue and his close friendship

with researcher Durwood Allen were to change the rest of his life. "Allen had been researching the predator/prey relationship on Isle Royale since the late 1950s," Peterson explained. "He usually had graduate students working with him and I happened to be the last one before he decided to retire. When I finished my doctorate in wildlife ecology in 1974, Allen turned the project over to me."

"Michigan Tech was interested in the research and offered me a teaching position, so my work has been based here since 1975."

In his early years at MTU, Peterson's work was long and tiring, and did not attract much media attention. He spent three months each summer on the island and three long, isolated months on the island each winter.

"During the early years of the project, we were just gathering data and did not understand what a lot of it meant," Peterson said. "The first wolves came across the Lake Superior ice to Isle Royale from Canada in 1949. No one had any idea of the impact on the island's moose population. Because we spent time on the island in the winter and could make accurate counts of both wolves and moose by the use of a plane on skis, we began to accumulate some good data."

The researchers quickly realized that the wolves would not "eat their way" across the island and eliminate the moose population. To begin with, moose are tough animals—even with a hungry wolf! They found that the wolves were successful only in killing the old or sick moose. They found that the wolf numbers also depended on the abundance of their summer food, the beaver. And they also found a strict social order within the wolf packs, which limits reproduction to the dominant male and female in each pack.

So why study a predator/prey relationship on an island in Lake Superior? For Peterson, it's ideal because he has a captive "audience" on the island. Seldom does Lake Superior freeze to the Canadian shore. A wolf or two has been known to make the ice crossing, but a moose just isn't built for icy lake crossings. He also is able to control access by humans, because Isle Royale is closed to the public in the winter—when much of Peterson's

observation work is completed. And his findings may aid in the re-introduction of wolves in other parts of the country.

In the past two or three years, Peterson's research has caught the eye of several outdoor writers. At first, Peterson felt like a hermit because he was very hesitant to take non-researchers with him to Isle Royale—especially in the winter. But the credentials of the writers involved surprised him.

Audubon magazine did a long feature on his work. *National Geographic* has a story in the works. And he appeared on the front page of the *Wall Street Journal*!

Peterson admitted the publicity helped in one area, it makes his job of finding funding sources for his research a little easier. "Writing grant applications and

finding money has always been time consuming," he said. "But in recent years it has taken up nearly half of my time. The publicity helps a little."

Peterson's 1983 report showed that 23 wolves lived on Isle Royale last winter, down from a high of 50 animals in 1980 but an increase from the 1982 total of 14. He also reported that Isle Royale's moose population had increased from about 725 in 1982 to approximately 900 in 1983.

He predicted the wolf numbers will stabilize at 20-30 animals over the next few years and the moose population should continue to increase.

Darryl Sczepanski, editor of *The UMD Bridge*, is director of alumni relations at UMD.



UMD graduate Rolf Peterson has spent the last 13 years studying the predator/prey relationship of the wolf and moose on Isle Royale. The national park makes a perfect laboratory, because it is closed to the public in the winter and he has a "captive audience" for his research.



VIRGINIA KATZ

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The University of Minnesota Duluth Bridge

She Provides Strong Union Leadership

by Angelo Gentile

When Virginia Katz started work as a faculty member at UMD in 1966, she became well-known around campus.

Why?

She was the first female faculty member to remain on the job while pregnant.

"In those days that was unheard of and you especially did not walk into the Campus Club if you were pregnant," Katz, now an assistant professor in the Department of Communication, recalled. "Back then it was even unheard of to bring your kids to the campus."

These days Katz is well-known at UMD and in the area for a much different reason--she's president-elect of the University Education Association (UEA), a union that represents 182 faculty members at UMD (plus 50 fair share members).

Katz was elected president because, some of her colleagues say, she has a proven track record of working hard on the union's behalf and her outspoken nature makes her unafraid of controversy--in fact almost seemingly attracted to controversy at times. In these days of tough and often difficult labor relations, her outspoken nature is almost a prerequisite for her union position.

She also has an ability to see a problem and "work very hard to get it solved," said Richard Lichty, who is the current UEA president. "She's great at making good decisions quickly and getting problems solved quickly. Virginia Katz is an extremely intelligent lady."

Katz, 45, moved to the Twin Ports area in 1966 because her husband, Albert, accepted a job at the University of Wisconsin-Superior--where he currently works as a faculty member in the Department of Communicative Arts.

Her first UMD assignment was in the Department of Secondary Education. She also worked with UMD's Campus Relations Office producing six weekly television shows dealing with UMD programs and people. She has less than positive memories of both. "Well, when John Verrill, who

was head of the secondary education program (now retired), came over to my house to offer me a job, I had never met him face to face. I was expecting the plumber so naturally I thought John was the plumber," Katz recalled with a smile. Then, on the subject of the TV show, she rolled her eyes. "I was pregnant at the time and we had to do six shows and they were all excessively boring. It was awful."

She and her husband had planned to stay in the area for only two or three years, but when Albert received tenure at UWS and when Virginia accepted a tenure track position in UMD's Department of Communication (back then it was Speech-Communication)--they decided to stay. "It really was a pragmatic decision. We had two tenured positions and one of the problems for women in academic life is that they are married to men in academic life and

it is hard to find two tenured positions in one place," she explained.

In addition, Katz added, "We both come from big cities, Al is from New York and I'm from Cleveland and Duluth is smaller, nicer and peaceful. It is less stressful and the area is beautiful. And of course, it's a great place to raise kids."

The Katzes have two daughters--Rachel, 16, who is a junior at Duluth East High School, and Rebecca, 14, a freshman at Woodland Junior High School. "Rachel is interested in theatre and the arts and Rebecca is into dance and dances with the Duluth Ballet," she said, adding with a smile, "They are both over-achievers like their parents."

Katz became interested in union activities in 1979, about two years before the faculty actually voted for unionization. "I always had a lot of respect for people who were involved in union activities and so eventually joined the association

as an officer (secretary)," she said.

With her professional background in communication, Katz quickly became a valuable asset for the union because she was able to write and send out news releases as well as internal newsletters. She also knew a number of the news people in the area. Media relations remains one of her responsibilities with the union.

In addition to news releases and public statements, Katz also plans and coordinates news conferences. She has a special knack for the dramatic. In the middle of negotiations on the union's first contract, Katz called a news conference which was held during a break in the bargaining session. The news reporters showed up and found the union's bargaining council on one side of the table and empty chairs on the other, representing absent administration officials.

For the most part, though, Katz plays it straight. "I do try to be straight with repor-

ters," she admitted. "A lot of what we do with reporters is just educate them and make them aware of what is going on. Collective bargaining in education is so new and it can be confusing with things such as 'intent to strike' votes and the Public Employee Labor Relations Act."

Currently, the union and the university are in the middle of negotiating a new contract for 1983-85 and things are at a standstill. The latest development occurred in January when the union's request for arbitration was turned down.

In the two years since the faculty formed a union, has it helped? Katz believes it has. "Particularly in the area of grievances," she said. "We now have a legally-binding grievance procedure with specific deadlines. We never had that before."

The union will remain a prime force in Katz's life. Being the UEA president is a six-year commitment--two years as president-elect, two years as president and two years as past president.

Any other future plans? In research, Katz plans to pursue the area of the needs and problems of older-than-average college students. She researched the subject for her doctoral degree, which she recently received (Dec. 1983) from Kent State University.

"Older-than-average students have different needs," she said. "And I've observed that it's different for a woman than a man. Women get lots of support when going back to school or trying college for the first time at a later age. When men do it, it is almost a negative thing. They are viewed as 'what's the matter, couldn't you make it in the real world?' It is an interesting phenomenon and I'd like to work on changing it."

How about personal future plans? For now, the Katzes, who live in the Hunter's Park area, are building a new home on the north shore of Lake Superior. "We've lived here enough years, I think it's time we live in a place where we can see the lake," she said.



Virginia Katz is at home in her communication classroom and in the spotlight as president-elect of the University Education Association. Her leadership abilities complement her dual role as educator and union leader.

Angelo Gentile, a writer in UMD's Campus Relations Office, covers a wide range of campus departments and activities.

ORWELL'S 1984

The University of Minnesota Duluth Bridge

Page 5

Not a Prophecy, But a Warning

by Angelo Gentile

In the past two months, as people have written dates on checks or entered appointments on personal calendars, many cannot help but think of the book *1984* and perhaps mutter something like, "It's finally here."

Tens of millions have read *1984* and most have viewed George Orwell's book as a dire, prophetic message predicting life under total governmental control--a world of totalitarianism.

And in fact Orwell (who died in 1949) acknowledged his opposition to centralized government rule: "Every line of serious work that I have written since 1936 has been written, directly or indirectly, against totalitarianism and for democratic socialism as I understand it..."

But a professor at UMD refutes the idea that *1984* was a forecast. "It was not meant to be prophecy but rather simply a warning to society," claimed John Kress, head of UMD's Department of Political Science, who has read the bulk of Orwell's works--including more than

a dozen books and hundreds of reviews, essays, letters and newspaper and magazine articles.

"*1984* was completed in 1948, and during that period of time in Great Britain (where Orwell worked and lived) there were a number of things going on that Orwell was disturbed about," Kress explained. "Such things as increasing governmental intervention and a trend away from individualism toward collectivism in society were trends Orwell wanted to warn people about. He was saying in *1984* that 'we need to be careful or this could happen to us.' He was not predicting or seeing the future as a political analyst. He was seeing and reacting as a professional writer to the dark side of 1948."

Kress believes Orwell's book was meant as a critique of centralism and collectivism as seen through "real life experiences which influenced him, such as Nazism and Stalinism." Orwell was in favor of preserving the traditional British values of individualism and *1984* was an indictment of the trends he could see--the rise of bureaucracies and

managers and the development of power blocs internationally."

Indeed Orwell (which was a pen name--his given name was Eric Blair) likely did not mean *1984* as truly the year 1984. He originally titled the book "The Last Man in Europe" and ended up with the final title by reversing the last two digits of the year the manuscript was finished, 1948. A year later--1949--and we may well have been waiting in anticipation for 1994.

The so-called "last man in Europe" in the story is Winston Smith, a bureaucrat in the totalitarian state of Oceania, who works for the Ministry of Truth. He re-writes old newspaper stories to make them fit the current Party philosophy, using the official language, Newspeak--a version of English that makes unorthodox or subversive opinions impossible to conceive.

Privacy is a thing of the past with posters everywhere proclaiming "Big Brother Is Watching You." Two-way telescreens keep an eye on all party members. Loyalty belongs to the party

and to Big Brother. When Smith commits a thought-crime by thinking the unthinkable, "down with Big Brother," and begins keeping a diary, he finds himself at odds with the party.

But it doesn't stop at the diary. Smith begins a love affair with Julia, a co-worker--another major crime. The Junior Anti-Sex League indoctrinates the virtue of celibacy and reports that procreation will soon be carried on solely through artificial insemination or "artsem" in Newspeak.

Smith is tortured for his crimes at the Ministry of Love (Julia is taken there too) and as a caged rat is thrust toward his face, Smith begs that his punishment be inflicted on Julia instead. Integrity gone, Smith is once again a loyal party member.

Despite Kress's warning theory, he does admit that some of the aspects of Orwell's book have come true--though not to the extent that Orwell envisioned. Kress points to such things as the Cold War in the 1950s and 1960s and the arms buildup as one prime example. "In the book you had power blocs

like Oceania and Eurasia," he explained. "Now, we have world powers like the U.S. and the Soviet Union."

The "decay" of language is another example that Kress points to. "In the book *1984*, the language of Newspeak perverted communication so that the slogans 'war is peace,' 'freedom is slavery' and 'ignorance is strength' came to be accepted in Oceania," Kress said.

"Orwell made his point. In the *1984* of today you see this manipulation of language everywhere; in commercial advertising and political campaigns and rhetoric. For example, the incident in Grenada. It first was called by President Reagan 'the invasion of Grenada' but then later he changed it to 'a rescue mission in Grenada.'"

Kress plans to cover the life and politics of Orwell through a course to be offered spring quarter at UMD, "Special Topics: George Orwell and the Politics of 1984."



MBA: TICKET TO SUCCESS

The University of Minnesota-Duluth Bridge

MBA Degree Program is Developing Leaders

by Darryl Szczepanski

For many years, a large insurance company has billed itself as the "quiet" company. It built its reputation on a quality product and good service, and did not rely on "making a lot of noise."

UMD has its own version of the quiet company. Although it does not receive a lot of attention, this academic program is turning out some of the region's top business leaders and has a long list of success stories to tell. UMD's quiet program is its master of business administration (MBA) degree program in the School of Business and Economics.

According to MBA program director Hyung K. Kim, his program draws its strength from its small size, outstanding faculty members and diverse student body. "When prospective students look at our MBA program, they are very impressed with the high quality of our faculty," Kim explained. "We are very fortunate to have an excellent School of Business and Economics to draw from."

"Students know we are very selective and we keep the number of students actively involved in the program down to 80-90. That means classes will be small and each student will receive a great deal of attention. And we pride ourselves on the diverse backgrounds of our students. Since most are highly motivated, they are quick to share their experiences with other students."

Kim said three types of students are attracted to the MBA program. "We have students who are comfortable in their

line of work, but who want to do their job better or perhaps move up in the company. We have other students who are interested in better mobility, either within their current company or to another part of the country. And we also have students who simply want to make a total career switch, perhaps into a more management-related career. All three types of students have done well in the program."

To be considered for admission into the MBA program, an applicant must have a bachelor's degree from a recognized college or university, must take the Graduate Management Admission Test (GMAT) and must complete an application to the Graduate School of the University of Minnesota. The bachelor's degree may be in any subject field.

Students who have had little or no background in business administration or mathematics may be required to complete some prerequisite courses. A minimum of 45 quarter credits of graduate courses is required to complete the program. Nine of these credits center on research and a research project, which is related to a student's job.

Kim said some MBA programs heavily emphasize theory, but the UMD version has a practical emphasis. "Of course, we realize that you can't be practical without knowing principle and theory," he said. "But we do stress the practical aspects of management. We use a lot of case examples in all our courses."

One of the best methods of judging the success of an

academic program is to look at the success of its graduates. Since the MBA program began in 1976, 46 students have received their degrees. Although most of the 46 are leading successful careers, Chris Mahai, Betsy Murphy and Nancy Norman are good examples of MBA graduates.

"It opened my eyes to the broad picture of business."



Mahai

Chris Mahai was working for a small Twin Ports area bank when she decided she needed more management coursework. "I had an economics degree from the University of Wisconsin-Superior and really did not intend to enroll in a graduate program," she explained. "I knew management experience was important to advance in my career, so I took a couple of classes. Pretty soon, I took the entrance exam and became one of the first women in the program."

"About the time I was finishing my program, First Bank asked me to transfer to Minneapolis. I

knew the First Bank system is very aware of the value of the MBA degree, so I went down to the Cities in 1982. I worked in marketing and personnel with an assistant to a regional director. In 1983, I was promoted and moved back up to Duluth as a vice president of First Bank Duluth for marketing and as an assistant to a managing director for the regional First Bank system."

Mahai said her MBA courses opened her eyes to the business world. "You can get a very narrow focus of things on the job, but the MBA program opens your eyes to the much broader picture," she stressed.

"It prepared me well to make decisions."



Murphy

Betsy Murphy is an associate marketing manager in flour milling for the Pillsbury Company in Minneapolis. A business and marketing graduate of St. Thomas, she looked at several MBA programs before selecting UMD's. "In the beginning, I liked it because it was small and had a strong faculty," she said. "As I took more courses, I began to appreciate other strengths--like its practical

approach. I was tired of the theoretical, I wanted to be prepared for the real world. So I became very involved studying real situations from the business world."

"The MBA program prepared me well to make decisions on an everyday basis. I don't hesitate at all in making decisions, because I learned what goes into making a sound decision."

Since Murphy tested the



job market after St. Thomas and worked for a year, she interviewed for positions as a bachelor's graduate and later with a master's degree.

"It was like night and day," she laughed. "With the bachelor's degree, people asked about things like my typing and shorthand skills. Even though I was not applying for a secretarial job, that seemed important to interviewers."

"When I interviewed with an MBA, they suddenly forgot about typing and wanted to know about my skills and my MBA program. It was totally different."

Today, Murphy puts her research background on the food system in Minnesota to good use at Pillsbury. She is responsible for the wholesale marketing of Pillsbury flours to food service distributors and for coordinating the shipment of her sales around the country.

"It was well worth every dollar I spent."



Norman

Nancy Norman is a good example of the "complete career switch" student in the program. When she started working on her MBA in 1977, she was a reference and reader service librarian at the Duluth Public Library. Today, she is internal audit supervisor at Norwest Mortgage, Inc., in Minneapolis.

"I knew I wanted to progress on the job, so I needed

some supervisory and management skills," she said. "I had a bachelor's degree in English and a master's in library science, so I needed to pick up several prerequisite courses. I attended part-time, because I had a job and family."

"To me, one of the best parts of the program was the interaction with other people who were working. They had a great deal of experience to draw from, and I found that very valuable. We depended on that interaction a great deal."

"Unlike many students, I found a great deal of value in the research project," she said. "The research process taught me how to organize and how to motivate myself. Properly managed, the research project can be a great management tool."

Norman recently defended her research and made a long, tiring drive home after several years of work on her degree. "I guess I expected something special when I reached home," she admitted. "But the dinner waiting for me was macaroni and cheese and hot dogs. When I asked my family why they didn't fix anything special, they said, 'This is what we have been eating for several years.' They were right!"

PHOTOS (top) Students in the MBA degree program have access to the excellent computer facilities in the School of Business and Economics. (center) Betsy Murphy, a marketing manager at Pillsbury, works with food service distributors around the country. (bottom, left to right) Hyung K. Kim, who also serves as associate dean of the School of Business and Economics, provides leadership for the MBA degree program. Chris Mahai, a First Bank Duluth vice president, has moved quickly up the banking "ladder." Nancy Norman, an internal audit supervisor at Norwest Mortgage, had been a librarian in Duluth.

Management Laboratory Provides Realistic Business Experience

Many graduates of the MBA program praise its practical aspects and cite the ease of applying the coursework to their jobs.

A good example of this "hands-on" teaching style is an experimental session of the "Strategic Management and Organization Laboratory." It was offered for the first time this fall to members of Kjell R. Knudsen's graduate-level business policy class. It was developed by Knudsen; Donald G. McTavish, a sociology professor from the Twin Cities campus; and Johan Aamodt, director of the Norwegian Center for Organizational Learning in Oslo.

Knudsen said the lab is a "large-scale simulation which puts emphasis on strategic analysis and decision-making within organization

culture and personality. It is a simulation in which you're dealing with real people and real decisions."

Students assume the role of a principal character in a business situation and must also assume that person's personality. Students then learn how the differences in individual personalities can affect business decisions and strategies.

In a typical exercise, a company is the target for acquisition by a holding company. The holding company employs a consulting firm to do a work-up of the potential acquisition as a potential member of its stable of companies. The work-up involves talking to officers of a bank which does business with both the holding company and the potential acquisition. Watching the process closely

is a public interest group, which has some questions about the quality of the acquisition's products.

Lab participants carefully studied the situation in advance and each took a role in a weekend session in Lutsen. Knudsen said the atmosphere in the lab's first run was "very serious" and the group was unanimous in its praise for the weekend experience.

The October session in Lutsen was the lab's first run in the United States. Since then, it has been run at the Norwegian Center for Organizational Learning and is scheduled for two more runs there this spring.

The lab is under consideration for regular inclusion in the MBA program.



WOODSWOMEN

The University of Minnesota Duluth Bridge

Women Gain Confidence Outdoors

"We give women a chance to have confidence-building experiences."



Niemi



by Darryl Szczepanski

When you think of outdoor activities--like backpacking, rock climbing, wilderness canoeing and building a log cabin--you tend to think of tough, bearded men. Let's face it, we have a very "macho" image of the outdoors.

Judith Niemi is out to change that image!

Niemi, a 1963 English graduate of UMD, is one

of three founders of Woodswomen--a Minneapolis-based organization that gives women an opportunity to develop their own styles of leadership.

How does that happen in the woods? According to Niemi, women need to develop their leadership styles free of traditional gender roles and expectations. Research on women's outdoor programs indicates that women often enroll with expectations of

exploring their own potential in a stereotype-free environment.

"We give adult women a chance to learn outdoor skills and to have confidence-building experiences," Niemi explained. "Many women did not learn about the outdoors from childhood, like their male counterparts did. They have little confidence and share that macho view of the outdoors.

"We're not into 'proving anything' and want no part of that kind of experience. We start slow and build confidence, because that confidence will continue on into everyday life. When you leave on a trip, you can leave all your fears behind in the city--because you feel very 'unafraid' in the woods. Already you have learned how to leave your fears behind, which is positive."

Niemi stressed that Woodswomen programs are for everyone, from beginners to the experienced outdoorswoman. "We have a special focus on teaching beginners," she said. "Our goal is to provide experiences that will encourage beginners to live safely, comfortably and happily in the outdoors. We range from young women with children to women in their 70s.

"On the more-experienced end of the scale, our 1984 calendar features trekking in Nepal, arctic canoeing on the Noatak River in Alaska and canoeing in the Canadian wilderness."

So how did a UMD and Harvard graduate become so involved with outdoor activities? "I spent the first summer of my life up in the woods," Niemi said. "My parents had a cabin on Lake Vermillion near Cook. I started skiing as a child and grew up loving the outdoors."

Niemi's college days included an English degree "up north" at UMD, a master's

from Harvard and doctoral work at McGill University in Montreal. During this period, she taught literature and writing courses for 10 years at UMD and McGill. She also spent seven months in 1969 and 1971 in the Canadian high arctic as an assistant glaciologist for the McGill University Axel Heiberg Expedition. Caught between the classroom and the outdoors, she joined with two other women in 1977 to form Woodswomen.

Working with Niemi in the early years (and still on the staff today) were Elizabeth Barnard and Denise Mitten. An anthropology graduate of Stanford University, Barnard had lived and traveled throughout the U.S. and South America. Mitten was a professional forester, with degrees in forest science from the University of Washington and Yale University. She has been an active forestry researcher and has conducted training programs in climbing, mountaineering, minimum-impact camping, rafting, canoeing and kayaking.

A recent addition to the leadership of Woodswomen is Kristen Frisch, who specializes in kayaking but guides canoe, bike, hiking, skiing and horse trips.

This broad mixture of talents and interests has led Woodswomen to set an ambitious schedule for 1984. Cross country skiing and camping trips are scheduled in November and in February and March of 1985. "Nepal Trekking" is on the calendar in October and November.

Backpacking programs include July in Colorado, Isle Royale in September and the North Shore of Lake Superior in late September. Bicycling workshops are scheduled in April and May, followed by bike trips to the Missouri Ozarks in April, a weekend

trip in May, a one-day tour and western tour in June, the Upper Peninsula in August and a Wisconsin weekend in September.

Three canoeing programs are scheduled this spring, followed by three "Learn to Canoe" weekends this summer. Three whitewater trips are coming up in May, five Boundary Waters canoe trips are scheduled throughout the summer, July 4 weekend will feature a kayaking clinic and several longer canoe adventures are planned.

Woodswomen has scheduled five special programs for women with children. They include a "Minnesota River Canoe Holiday," May 26-28; "Kids' Rock Climbing," July 5; "Kids' Day on the Mississippi River," Aug. 11; and "Weekend Camping with Children," Aug. 18-19.

Other Woodswomen programs in 1984 include eight rockclimbing programs, horsepacking trips, outdoor leadership training programs and a series of monthly workshops in the Twin Cities.

To join the Woodswomen organization or for more information on its newspaper and programs, contact Niemi at Woodswomen, 2550 Pillsbury Ave. S., Minneapolis 55404 or call (612) 870-8291.



Helen Smith of Minneapolis proved that Woodswomen programs are for everyone, as she enjoyed a canoe trip into the Boundary Waters. Her adult daughter also went on the trip.

PAUL WEBSTER

The University of Minnesota Duluth Bridge

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From Spiderman to Chimney Sweep

by Shahla Rahman

Paul Webster hangs up his hat in a rather unusual place--in a web! What is even more unusual is that his hat is that of a chimney sweep!



Webster is a young man who wears many hats. He is a UMD sophomore who runs his own chimney sweeping business in Duluth. In his spare time he crawls around in his own handmade webs.

UMD's own version of "Spiderman" sleeps and entertains his friends in a web in the house he shares in Duluth with six other people. This winter he also built himself a small web attached to the ceiling of UMD's Tweed Museum of Art. "Those pillars have always inspired me," he explained.

Webster said he has been making webs since he was approximately 13 years old, while growing up with his two brothers and two sisters at his parents' farm in Tamarack--just west of Duluth.

"I had been reading a lot of 'Spiderman' comic books, and on a rainy day I decided to build a small web in my parents' hay barn," he said.

The following year, the Webster boys built a more ambitious web (40' x 40') in the family pole barn. It served as a summer bedroom and was the site of family "web wars" and many parties.

"For a time, we even had a two-storied web--which provided private quarters," he said. A "winter model" had quilts woven into the web, but proved "too stuffy" for sleeping.

And a sound sleep is what a web provides him with, Webster claims. Sleeping bags on the web are permitted, but mattresses are not acceptable. "I consider that to be cheating," he noted. A conventional bed is "very restrictive and boring," he added.

The comment he says he hears the most is, "Aren't you afraid you are going to fall?" However, Webster claims he has never broken any bones on his webs. "My webs are very strong and safe," he said. However he does urge caution after seven beers. "Then it is very easy to inadvertently slip out the 'door' of the web," he warned.

For the past two years, Webster also has been Duluth's Village Chimney Sweep. He said he always cleaned his parents' chimney and decided this was a good way to pay some bills while he was in school. When he moved to Duluth to attend UMD, his parents, both school tea-

chers, helped him finance the operation and set him up in the chimney sweeping business.

Webster said he sweeps 20-30 chimneys per month. "Business is good, even though there is a lot of competition," he says. "However," as he puts it, "chimney sweeping beats flipping burgers."

In the midst of all this activity Webster is a full-time UMD student majoring in English and communication. "It's a painful existence," he admitted.

However Webster, who is a committed environmentalist and nature lover, also admits to enjoying school. "I like college a lot because you can be your own individual," he said. He added that "even though I am probably not as serious as I should be, I feel I am getting a good education at UMD." His choice to attend UMD was influenced, he said, by the school's good programs in both his major fields, its picturesque setting and a "good karate program."

As for his future, Webster said, "One of my more normal tendencies is to travel." As he said, "I would

like to go to Australia and the Upper Amazon and catch a few exotic diseases." Someday, he said he also hopes to teach English or be an environmental writer.

In the meantime, he hopes to keep building webs. Webster said he hopes to build an outdoor web and has his eye on another spot on campus for a second UMD web.

"Even though I am absorbing some of the big city's chemical impurities, I am basically an individual who enjoys nature and art, and in general tries to enjoy life," he noted.

His philosophy on life: "Everyone should have some fun in life and try not to become an 'average normal' person."

Most people will agree that Paul Webster is following his own advice.

Shahla Rahman, a writer in UMD's Campus Relations Office, has a wide range of writing responsibilities on the UMD campus.



RALPH ROMANO

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The University of Minnesota Duluth Bridge

He Put UMD Athletics on the Map

by Bruce Bennett

Ralph Romano always fought a good fight. He didn't relish one, but he didn't back down, either. And he never carried the battle out of the ring.

When the gloves came off and the tape was stripped away, the cuts stitched and the contusions treated, he'd smile and put a friendly arm around my shoulder and say, "You know, we have our differences, but we'll probably both go to each other's retirement party."

I went to his on a cold December morning. And I'll miss him at mine, because he won't be there. There must be a greater game somewhere and he was needed to straighten things out, whether by friendly persuasion or a little arm-twisting. He could do both.

I can see him now, perhaps wringing his hands, glancing nervously at the clock, not saying much but definitely into the game. And getting a job done.

Oh, we had our battles. Mostly over hockey coaches. Their hiring and firing. It was never easy. Usually messy. A no-win situation either way. The decision was usually a draw and we both would come away battle-scarred and maybe wiser. Or maybe not. Because we traveled the same path several times.

Our careers were intertwined. He was a sports reporter for the *Duluth News-Tribune and Herald* before taking the hockey coaching job at his alma mater, UMD, in the fall of 1959. There were two staff openings simultaneously on the sports staff and I filled one of them and followed his career as a collegiate coach and athletic administrator. We were both young, we both made mistakes, but we grew in our jobs.

Romano's dual roles complimented each other. He nurtured a hockey program through a difficult adolescence into full bloom, much as a youngster grows from childhood naivete to the awareness and inquisitiveness of a well-rounded adulthood. He brought hockey from the outdoor rink of the Minnesota Intercollegiate Athletic Conference and the dank reaches of the old Curling Club to the gleaming venues of the

Duluth Arena and into national limelight.

After stepping out from behind the bench after nine seasons, he became a ranking and respected hockey leader in the growth of the sport, both within his beloved Western Collegiate Hockey Association and the National Collegiate Athletic Association, where his voice carried clout.

"He lived Duluth hockey," said his old rival and colleague, John Mariucci, with whom he fostered the Gopher-Bulldog rivalry when "Maroosh" coached at "the main U." "The welfare of Duluth hockey meant more to him than anything except perhaps his family. And he built it into one of the finest programs in the country."

With all due respect to the venerable Mariucci, I'd change two words in that statement. Make it, "He loved UMD athletics. The welfare of UMD athletics meant more to him..." The growth of the overall Bulldog program, men and women, is doubtless Ralph Romano's finest legacy.

You have to think back to what it was when he arrived on campus--for the second time, inasmuch as he was a student there in the mid-50s. The beginnings were meager, the outlook dim. The football team played its games second

fiddle at Public Schools Stadium in West Duluth. The hockey program was treading water, taunting MIAC rivals but haunted by an inability to escape to a higher league. No wrestling. No baseball. If there were track and field or cross country teams they were so obscure few knew of them.

And no women's athletics at all.

UMD had a basketball team and that was about it. Coach Norm Olson had taken the Bulldogs to the NAIA tournament in Kansas City twice and people spoke in awe of that grand guard tandem, John Sampson and Bob Monson, or the acrobatic scoring antics of Dave Baker, tones that were to be reserved later for hockey performers such as "Huffer" Christiansen and Bob Mason.

Indeed, a conflict between the two men's winter sports raged during the Romano years, but he steered a steady, if uncharted, course. As the hockey program struggled and, ultimately in the '80s, gained an identity, so did the basketball program under the coaching of the remarkable George Fisher, a Romano hireling.

Moreover, the entire program flourished under his direction. Today a balanced, successful 15-sport men's and women's athletic program

stands as testimony to his efforts. Griggs Field is filled on fall Saturdays, the Arena on winter weekends, women's volleyball and softball teams win titles. There is work undone, but isn't there always?

"We feel we have good people and solid programs," he said two years ago, as the fruits of his labors began to unfold. "We think success breeds success. A lot of it has to do with the kind of people--coaches and athletes--we've got. They've worked hard. You never know exactly why you start having as much success as we have enjoyed. It's probably a combination of a lot of things.

"We haven't changed coaches often, for one. Our football coach, Jim Malosky, has been here longer than I have. That lends a semblance of stability to our programs. We've kept the men's and women's programs under one umbrella in the athletic department, for another. I was blessed with someone like Linda Larson as women's coordinator. We've circumvented many of the problems other schools have (integrating women's athletics into the inter-collegiate scene)."

That was Romano, always deflecting the credit from himself to others. But his talents couldn't always be hidden. He was a tireless worker.

"No way can we replace him with one person," said UMD Provost Robert Heller. "There were times when he was over-worked and things would bother him, just as they would any of us. But he had the right personality for the job. The thing that bothers me is that Ralph was just beginning to become recognized nationally for his talents and abilities."

"I think his forte, as people who worked with him over a period of time came to realize, was his fairness," added Dennis L. Nelson, assistant provost. "He was honest, diligent and, moreover, very fair with people--in his dealings with coaches, his employees, other institutions, the public, everyone."

"Very simply, he WAS the athletic program," said Bulldog hockey coach Mike Ser-tich. "Everything that's here he fought for. Everything. It was his dream to put UMD on the map, not just in hockey, but in all sports, and that dream was gaining fulfillment the past few years."

Through the years he brought a sense of warmth and sincerity to his job, together with integrity and honesty and the fairness that has been mentioned. "He took a lot of abuse sometimes for the decisions he had to make (running the athletic program)," mentioned Christiansen, one of the very best athletes ever at UMD. "But he took it all, never came out against anyone or held any grudges. That says a lot about his character."

Indeed.

Oh, how he would have enjoyed riding out just one more hockey season, given the success the Bulldogs have attained this year. He died Dec. 16 with his boots on, doing what he enjoyed and what he did best, enjoying what he loved: a UMD game. Typically, the team dedicated the season to its fallen leader, and each succeeding week the intensity and purpose with which it has undertaken its mission makes the gesture more significant.

It would have made Ralph Romano proud. Somewhere, he has to be smiling.



Ralph Romano will be remembered for his devotion to the UMD campus and its athletic programs. Although he missed the Feb. 18 hockey game that clinched the WCHA title, everyone is convinced that "he knows."

Bruce Bennett is associate sports editor of the *Duluth News-Tribune and Herald*.

BRIDGE

Spring

1984

CALENDAR

March

- 3** California Alumni Reception, Oakland, 6:30 p.m.
- 11** Faculty Recital, Ronald Gauger, First United Methodist Church, 4 p.m.
- 13** UMD Chamber Orchestra Concert, BohH 90, 8 p.m.
- 14** Chris Carlson, "Cults-- Appeals vs. Dangers," Kirby Ballroom, 8 p.m.
- 16** The Wolverines "Big Band Sound" Dance, Greysolon Plaza Ballroom, 8:30 p.m.
- 18** Faculty Recital, Patricia Laliberte, BohH 90, 4 p.m.
- Lecture and Demonstration, Meg Harper, MPAC, 8 p.m.
- Public Schools Art Exhibit, Tweed Museum, Main Gallery, (runs through April 22)
- 21** Mike Lewis, Tweed Museum, Lecture Gallery (runs through April 1)
- 22** UMD Wind Ensemble Concert, MPAC, 8 p.m.
- 22-25** UMD Theatre, "Antigone" by Sophocles, Dudley Experimental Theatre, 8 p.m.
- 23-24** Elizabethan Dinner, Kirby Ballroom, 7 p.m.
- 25** Photography Exhibition, "Our Land/Our People," Tweed Museum, Balcony (runs through April 22)
- Elizabethan Dinner, Kirby Ballroom, 4 p.m.
- Fibers, Alyce Coker, Tweed Museum, Court Gallery (runs through April 15)
- 28-31** UMD Theatre, "Antigone" by Sophocles, Dudley Experimental Theatre, 8 p.m.
- 30-31** Elizabethan Dinner, Kirby Ballroom, 7 p.m.

April

- 1** Elizabethan Dinner, Kirby Ballroom, 4 p.m.
- 4-7** Spring Dance Concert, MPAC, 8 p.m.
- 8** Faculty Recital, Donna Pegors, Raymond Comstock and Patricia Laliberte BohH 90, 4 p.m.
- 10** Baseball, UMD vs. Carleton, Wade Stadium, 2 p.m.
- John Stockwell, "Foreign Policy in Central America," Kirby Ballroom, 8 p.m.
- Inger Grudin Harpsichord Workshop and Concert, MPAC, 8 p.m.
- 13-14** Jazz Festival, MPAC, 8 p.m.
- 14** Softball, UMD vs. Winona, 1 p.m.
- 15** Faculty Recital, Gordon Jacob, BohH 90, 4 p.m.
- 17** Softball, UMD vs. UW-Superior, 3 p.m.
- 19** Softball, UMD vs. Morris, 2 p.m.
- 24** Tom Deluca, Hypnotist, Kirby Ballroom, 8 p.m.
- Baseball, UMD vs. Bemidji, Wade Stadium, 2 p.m.

- 25** Sonny Rollins, "World's Greatest Jazz Saxophonist," and Tom Deluca, Hypnotist, Kirby Ballroom, 10 a.m.

- 26-29** UMD Opera Theatre, "The Old Maid and the Thief" by Gian Carlo Menotti and "Il Tabarro" by Giacomo Puccini, MPAC, 8 p.m.

- 27-28** Baseball, UMD vs. Northern State, Wade Stadium, Friday at 2 p.m. and Saturday at noon

- 27-29** Model UN, Kirby Student Center

- 28** Annual Student Exhibition, Tweed Museum, Main Gallery, Alice Tweed Tuohy Room and Balcony (runs through May 13)

- 29** Photographs and Paintings, Loran Pietila, Tweed Museum, Lecture Gallery (runs through May 20)

Paintings, Amy Berg Rigby, Tweed Museum, Court Gallery, (runs through May 20)

UMD Chamber Orchestra, BohH 90, 3 p.m.

Feast of Nations, Exhibits, noon, Campus Club; Stage Performance, 2:30 p.m. Bull Pub; Dinner, 4 p.m., Cafeteria

May

- 1** UMD Jazz Ensemble I, MPAC, 8 p.m.

Softball, UMD vs. St. Cloud State, 3 p.m.

- 3** Freshman Chorus/ University Chorale, Gloria Dei Lutheran Church, 8 p.m.

Softball, UMD vs. UW-Superior, 3 p.m.

- 4-5** Baseball, UMD vs. Southwest State, Wade Stadium, Friday at 2 p.m. and Saturday at noon

- 6** Suzuki Festival, BohH 90, 3 p.m.

University Singers Concert, MPAC, 8 p.m.

- 8** Concert Band/Jazz Ensemble II, MPAC, 8 p.m.

- 10** UMD Wind Ensemble Concert, MPAC, 8 p.m.

- 16** Karen Monson, Tweed Museum, Studio Gallery (runs through May 27)

- 19** Spring Quarter Commencement and Reception, Gymnasium, 2 p.m.

- 20** Sculpture, Boyd Christensen, Tweed Museum, Balcony (runs through June 24)

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