A Personal Letter from David Gater: New Co-Director Describes U-M Model System, Vision for SCI Care and Research

Wow! It is an exciting time to be involved with the University of Michigan Model Spinal Cord Injury Care System (U-M Model System)!

Now in its fourth five-year cycle as one of only 16 centers funded by the National Institute of Disability and Rehabilitation Research, the U-M Model System is well known across the country for its consumer-based research on community reintegration for those with spinal cord injury. Additionally, its long-standing affiliation with the Ann Arbor Center for Independent Living (AACIL) has served as a model and resource for dozens of centers across the country wishing to improve their own community resources and accessibility.

A selection of our current research projects are summarized in this issue of SCI access, and I’d like to briefly fill you in on several additional areas of investigation we will be pursuing in the upcoming year. Let me start, however, by reminding you of some of the amazing resources available at the University of Michigan associated with the Model System.

We have a carefully coordinated system of care that smoothly transitions from emergency medical services (EMS) and acute care to rehabilitation and community reintegration, all working toward the common goal of helping you to regain functional independence. The Survival Flight teams responsible for your transport to the U-M were recently named the best air medical program in the country, and cutting-edge neurosurgical techniques performed by U-M physicians have been shown to improve functional outcomes for those with traumatic SCI.

Our Physical Medicine & Rehabilitation department boasts three physicians with subspecialty certification in Spinal Cord Medicine, and we are recruiting an additional physician to assist with SCI clinical care. In addition to our physicians, our rehabilitation services include nurses, occupational therapists, physical therapists, recreational therapists, psychologists, social workers, vocational counselors, orthotists, and rehabilitation engineers with specialty interest in SCI. These bright and dedicated individuals treat between 50-55 new people with acute SCI each year, combining their skills, compassion, and resources to allow maximal community independence for you and your family.

Representatives from the AACIL also play an important role in the rehabilitation process, and help provide peer counselors to remind you that “Yes, You Can!” Outpatient care is coordinated by SCI physicians and includes collaboration with our colleagues in primary care, neurosurgery, urology, and rehab engineering. Specialty programs also exist for pediatric SCI, including Baclofen pump clinics for spasticity management and a summer camp for ventilator-dependent children. All aspects of U-M Model System care are carefully monitored and periodically evaluated by a team of medical professionals and local consumers in order to provide you with the best of innovative care and opportunities.

We also are pursuing research collaborations with some of our colleagues in the basic sciences in order to develop a full continuum of research including aspects related to SCI cure, as well as SCI care. Stem cell, growth factor enhanced neuroregeneration, and axonal guidance research is occurring within a stone’s throw from the clinical care center, and we hope that developing relationships will facilitate translation of basic science research in this area to clinical trials. Additionally, there are clinical trials underway at U-M that include tendon transfer surgery for hand function in tetraplegia and suspended gait training for incomplete SCI.
My particular area of interest is in the acute and chronic responses of exercise on coronary artery disease (CAD) risk profiles, hormonal and metabolic parameters, functional outcomes, and quality of life in the spinal cord injured adult. Specifically, cholesterol profiles, glucose tolerance and insulin sensitivity, resting metabolism, and body composition are drastically altered in individuals with SCI due to interruptions in the somatic and autonomic nervous systems, and can be viewed as an accelerated model of aging. Our investigations will determine the extent to which these standards may be “normalized” in response to specifically dosed aerobic and resistance exercise.

We will also be trying to accurately measure the number of calories burned while wheeling around the community and hope to unlock some of the answers related to weight gain, diabetes, and heart disease associated with chronic SCI. As the lab develops, we will additionally assess functional electrical stimulation for exercise and restorative function. Much of this work is made possible through collaborations with the U-M General Clinical Research Center; Diabetes Research Training Center; Geriatrics Center; Department of Kinesiology; and the Veterans Administration’s Geriatric Research, Education, and Clinical Center. I am especially excited about these collaborations, as they will allow us to forge new directions for SCI research, and I look forward to including our veterans in the educational, research, and dissemination missions of our SCI care system.

Over the next several months, I invite you to frequently visit our website, as we will be updating it with new information about SCI care, research, and educational opportunities available at the University of Michigan. For example, we will be participating in the Phase III Fampridine (4-aminopurine or 4AP) clinical trial. Information about this and other clinical trials will soon be linked to our site. Please also consider attending our SCI conference on Technology for Wellness on September 28th…I’m looking forward to meeting many of you and sharing our vision for the 21st century!

Sincerely,
David Gater, M.D., Ph.D.

Wellness with SCI Program Stimulates Healthy Activity

by Scott Strath, Ph.D.

The Effects of a Holistic Health Promotion Program on Persons with SCI is a project funded by the U-M Health System’s Venture Investment Fund and directed by Dr. Denise Tate. Investigators are evaluating whether a wellness and health promotion program can make an impact on the fitness, nutritional status, and stress levels of persons with SCI. All program participants went through a series of clinical evaluations and completed extensive surveys. Half were randomly selected to attend a series of six workshops covering aspects of physical activity, lifestyle management, and nutrition. In addition to evaluating the workshop’s impact on physical fitness, nutrition, and stress, the study is evaluating whether participants experience fewer secondary conditions than non-participants and whether participants feel that their quality of life has improved.

While final conclusions have yet to be drawn, preliminary results are promising. Following participation in the workshops, there was a 35% increase in the proportion of program participants’ following a planned exercise program. Similarly, 27% reported reducing the cholesterol and fat in their diets, and 42% said they began using specific methods of stress control. The majority of the participants in the wellness program reported it was extremely useful, easy to understand, and they would recommend without hesitation a program like it to others. We are continuing to evaluate the Wellness with SCI program, which appears to have been a success.

New Questionnaire Will Help Assess Consumer Needs

by Martin Forchheimer, M.P.P.

The U-M Model System is currently conducting a study titled The Determinants of Societal Participation Following SCI. This project’s aim is to identify the factors that influence participation in society following SCI. While looking at a number of issues, the project will focus on understanding the roles of knowledge of Independent Living (IL) skills and resources and the impact of barriers in the environment. Additionally, how people experience environmental barriers will be explored. This study continues the research on Independent Living that has been conducted by the U-M Model Systems throughout its 16-year existence. The primary task conducted so far has been the design of a survey instrument that evaluates knowledge of IL skills and resources. Staffs from the U-M Model System and the Ann Arbor Center for Independent Living have done this jointly. In addition to its value for the conduct of this and other research studies, this instrument, the Independent Living Knowledge Questionnaire, will be of value to CILs and/or case managers. They will be able to use it to quickly determine areas in which their clients with disabilities need information to better gain control over their lives.

David R. Gater, Jr., MD, Ph.D., joins the faculty at U-M as Director of Spinal Cord Injury Medicine and Co-Director of the U-M Model System. He is board-certified in Physical Medicine and Rehabilitation, Electrodiagnostic Medicine, and the subspecialty of Spinal Cord Injury Medicine. He was an Assistant Professor at the University of Kentucky (1996-2001). In February he received the Young Academician Award from the Association of Academic Physiatrists for excellence in teaching, research and administration.
Ferris Builds Exoskeleton; May Improve Training People to Walk

by Scott Strath, Ph.D.

For people with SCI who have some leg strength, locomotor training can greatly improve the ability to walk. Typically therapists provide manual assistance to individuals as they step on a treadmill. This provides locomotor sensory feedback to promote task-specific motor learning, helping the gait rehabilitation process. There are two major drawbacks to locomotor training: it is very labor-intensive, and the way that it is performed varies from therapist to therapist.

To investigate a set of these issues, The Christopher Reeve Paralysis Foundation has funded a new study at the U-M Division of Kinesiology titled, A Powered Lower Limb Exoskeleton to Assist Locomotor Training. As he carries out the study, Dr. Dan Ferris and colleagues at the Human Neuromechanics Laboratory are building a powered “exoskeleton.” This will act as a tool to aid therapists in locomotor training. The exoskeleton will enable the therapist to aid patients’ stepping while avoiding excessive physical exertion. It will also promote consistent stepping practice and monitor patient progress. The exoskeleton will be a powered hip-knee-ankle-foot brace constructed from carbon fiber, titanium fittings, and artificial pneumatic (air-filled) muscles. This design will make it light enough to aid locomotor training without being awkward to the individual. The exoskeleton that Dr. Ferris’ team is developing will improve technology for gait rehabilitation and will provide clinical researchers with new tools for studying the scientific basis of neurorehabilitation after SCI.

Dr. Ferris recently presented his research at the Model System Lecture Series on April 10, 2002.

Wayne State Study Shows Moderate Exercise Could Ward Off Sickness; Overdoing It May Be Counter-Productive

by Thomas Birk, Ph.D., M.P.T.

Individuals with SCI, particularly a cervical injury, have an adversely altered immune system due to central nervous and endocrine system changes. A fully functioning immune system is imperative to fight off illness and disease. Therefore, persons with cervical SCI become more prone to infections, such as respiratory, urinary, and skin infections. Such occurrences can result in the loss of mobility and independence. Within the non-spinal cord injured, moderate-intensity aerobic exercise has been shown to favorably alter how the immune system works (immune function), with lower levels of reported upper respiratory tract infections in comparison with persons who either 1) don’t exercise or 2) perform high-intensity aerobic exercise.

The purpose of this study titled, Immune Function in Tetraplegia SCI With Exercise, led by Thomas Birk, PhD, MPT was to determine whether exercise training at a moderate intensity could enhance the body’s ability to ward off illness in persons with cervical level SCI. Fourteen participants were assigned to either an exercise or a control group. The exercise group trained three days per week for 12 weeks. Training consisted of 30 minutes per day on an arm crank ergometer (arm pedaling).

Following the training intervention, the body’s reported chemical ability to ward off illness was enhanced within the exercise group in comparison with the control group. This enhancement was not, however, related to a lower level of illness. At the end of 12 weeks, upper respiratory tract infections and bladder infections were reported in both the exercise group and the control group. Although training was closely monitored, the presence of illness in the exercise group may have been caused by doing too much exercise (overtraining), especially as the study started, since all the subjects had been quite inactive.

Book Review

by Claire Kalpakjian, Ph.D.


“Spinal cord regeneration” — an endeavor fraught with complexities not only of the human body and scientific discovery, but of politics, money, and the monumental task of balancing hope and despair. Some 3,500 years ago, an ancient Egyptian papyri proclaimed spinal cord injury was a “disease that cannot be treated.” Until the last two decades, this had been the final word on spinal cord injury.

In her new book, Luba Vikhanski traces the international quest for spinal cord regeneration. This journey begins with the mid 19th-century debate over the nature of the nervous system in Spain and Italy to William Windle resurrecting the challenge of regeneration in the 1950s in the United States; from immune therapy in Israel in the 1990s to stem cell research today.

Vikhanski, a science journalist specializing in biomedical research, uses easy-to-read language to explain scientific concepts, making it an important book for those seeking to understand the complexities of spinal cord regeneration and the advancement of scientific discovery. She balances this with empathy for the struggle of both the scientists and those living with spinal cord injury in the hopes that science will someday lay to rest that ancient prescription that spinal cord injury is irreversible.
Charlie Martin had everything he had ever dreamed of, everything he had worked for, and was doing what he loved. He was the drummer and primary back-up vocalist for Bob Seger. Life was good.

On February 22, 1977, at the age of 24, everything changed for Charlie. He was coming home from a rehearsal with the band when he ran out of gas. Leaving his car on the side of the expressway, he walked to the nearest gas station. On his way back to his car, a young girl, speeding without her lights on, changed his life. He woke five weeks later, only to find out what had occurred. He had become a T12 paraplegic who would need to use a wheelchair full time.

For the next five years or so, music and performing were put on the “back-burner.” Martin reflects, “There is an image of yourself that you have to visualize, the image you want others to have also... you cannot walk out onto a stage unless you know who you are and have an image of yourself... I hadn’t reached a point where I could rebuild that vision, I could not imagine myself as a performer—a musician in a wheelchair.” So he used his creative talents to develop a t-shirt business, a radio talk show about the music industry, and created and published a magazine, The Detroit Music Times.

Charlie was driven and stubborn. He was determined to prove to himself and others that he could do everything on his own, without any assistance. Over time he realized that “people are not islands, they are very interdependent—whether you have a disability or not, you need other people.” He had been in denial of the impact his physical loss was having on him psychologically. He had erected a shield, which separated him from his own emotions. Finally, after almost 10 years, he began to admit that his life had permanently and dramatically changed. With this awareness he finally allowed himself to shed actual tears and to emerge from the depression which had become a barrier to his rebirth as a musician and performer.

He started to rebuild an image of himself in his mind. He went to “jam sessions” to see how he would feel on stage, how the audience and his fellow musicians would accept him as a performer who used a wheelchair. It took him a long time to start singing and playing music again with the same confidence and enthusiasm he had before his injury. By 1985, though, he gained enough acceptance from the music community to participate as a vocalist in two benefit concerts raising funds and awareness for Vietnam veterans.

Over the last 15 years, Charlie has also volunteered in the community. In the early 80s he was a peer counselor for the AACIL, helping newly injured individuals adjust. He and his wife also facilitated a discussion group on sexuality and relationship

“There is an image of yourself that you have to visualize, the image you want others to have also...”

The phenomenal response he drew from the crowd told him he could once again be a performer, which soon gave him the confidence to pursue his renewed dream of music-making. From that time on, he has continued to perform as a vocalist, percussionist, and keyboard player. In 1987 he organized a benefit concert for the Ann Arbor Center for Independent Living (AACIL) and even studied recording engineering and sound reinforcement. In 1989 he joined a band called the “Late Show” as the lead vocalist and keyboardist.

Rock and Rolling Better than Ever: Musician Encounters SCI, Today the Beat Goes On...

by Ann Swartz, Ph.D.
Artistic Expression), an international organization which sponsors opportunities for disabled children and adults to express themselves through the arts. He recently participated in the U-M Wellness with SCI research project. Both his volunteer work and his job as a musician provide him with satisfaction, knowing that he is positively impacting the lives of others.

To get to this stage in his life, Charlie has had to face many challenges, some of which he still confronts on a day-to-day basis. He confides that the major trials he has grappled with since his accident are related to his feelings of self-esteem. Not being able to walk paled in comparison to bladder, bowel, and sexuality issues for Charlie. These were and are challenges both psychologically and physically. Because of Charlie’s low level of injury (T12), he has been able to adapt to architectural challenges—hotel rooms, bathrooms, even hospital rooms that are designed as “handicap accessible” but do not provide enough room to fit a wheelchair in much less an adequate turning radius. However his frustration mounts when he thinks of his peers with higher level injuries to whom these “challenges” may be insurmountable obstacles.

In February 1977, the Charlie we know today was born. He has now been “a rider” longer than he had been a “vertical person.” This successful man advises that his experiences with SCI have taught him not to “get so fixated on any one thing so you will not allow yourself to try new things. Have the courage to try new things. You may succeed or you may not, but you will definitely learn something about the person you are and what your limits and capabilities are.”

Now, 25 years later, he is on stage playing music and living his dream. It took him awhile to realize that his paralysis has opened doors that he may never have discovered if he were not injured. He might not have explored his talents as a lead vocalist or keyboardist. He is active, personable, and attractive and doing what he loves to do. He has seen to it that his wheelchair did not become a prison; it is simply part of who he is as a whole person. He is definitely rocking and rolling—not just as a musician, but as a wheelchair user who has proven that the beat can and does go on.

If you’d like to meet Charlie Martin or see him perform live, call the “Late Show” hotline at (586) 468-8080.

The “Light the Fire Within” theme of the Olympic Torch Relay, brilliantly came to life for me on a blustery January evening in Detroit. I was trailing Travar Pettway down Woodward Avenue near the Fox Theater for his leg of the relay leading up to the Winter Games in Salt Lake City. Travar set a brisk pace and a biting wind teased the flame but never threatened to put it out. In the power wheelchair with attached ventilator that Travar drives with his chin, he was contributing to the diversity of ways in which the torch was winding its way across 46 states, on its way to Utah.

In anticipation of the relay, Travar had acknowledged the thrill, had admitted to butterflies, and had fretted that the knit cap, a part of the torchbearers’ official uniform, “makes me look like a Martian!” He had also reported his primary concern that the torch not set him afire.

Now with his actual carry a quarter of an hour away, he may have forgotten this concern, as he faced the immediate need to keep warm. Whipped by the bitter wind, he huddled under blankets and a heavy coat. The only part of his uniform to be visible was the cap pulled low over his eyes. Others carrying the torch were transported to their starting points in the comfort of a heated, lighted van. Travar was not allowed to ride, since his assistant accompanies him everywhere, and torchbearers were the only persons permitted in the van.

Travar didn’t seem to mind—the wait on the street was a splendid photo opportunity for the sizeable contingent of family and friends who had come to cheer him on and he took his share of good-natured teasing. Jim Magyar and Tom Hoatlin from the Ann Arbor Center for Independent Living were all smiles as they bantered with their nominee for the relay. Also on hand were volunteers and staff of Trail’s Edge, a camp for ventilator-dependent children. Travar serves as a member of its board of directors. Several minutes before the torch actually arrived, the heavy wraps were thrown off and he prepared to receive the torch, resplendent in his white and blue uniform featuring the Olympic rings and his number, 222. Then, suddenly we all watched him zoom into the wind, torch blazing. Thanks, Travar, for the ways that you embody the Olympic spirit and light fires within, not only on a bleak winter night, but also during every single day!
New Airport a Big Improvement, Especially for Wheelchair Users

by Glen Ashlock, M.S., A.T.P.

The new Northwest Airlines terminal at Detroit Metropolitan Airport is definitely an improvement over the old Davies Terminal, both in general, and more specifically, for wheelchair users. Overall, it’s a more user-friendly structure, from the covered curbside check-in, to the smooth-riding trams, to the roomier waiting areas near the gates. Here is one wheelchair user’s experience of “the new airport” on a recent visit.

Valet Parking Is Easiest

All parking for the new terminal is in one structure. There are different levels and price options (for example: long-term, short-term, economy, valet). Handicap parking spaces are spread out across all levels of the parking structure. The level for international arrivals is recommended for people with vans, as it has more overhead clearance. There is a wheelchair symbol on the signs for the international levels.

Regardless of where you park, you need to go to level six to take the enclosed pedestrian bridge into the airport. There is a moving walkway from the elevators on level six to the central parking lobby near the pedestrian bridge. The parking lobby has baggage check-in and e-ticketing machines. If you bring your parking receipt, you can prepay at one of the machines on the way out to avoid waiting in line when leaving the structure.

The new parking structure is big, very big. Even from a handicap spot near the elevator, you can have a long way to go to the baggage check-in. The airport spokesman I talked to suggested that people who need help getting around or moving bags get a family member to drop them off at the door (so not everything has changed).

The closest and easiest parking option is to use valet parking, especially if you have luggage. Follow the valet parking signs and you can drop your car off right next to the baggage check-in area at the pedestrian bridge on level six. If you have the free-parking validation on your handicap permit (the yellow sticker), valet parking is free. Any handicap parking permit will get you out of the other parking levels for free, even without the validation.

Security Still Includes Hand Search

The pedestrian bridge is uphill from the parking garage to the airport. It is not especially steep, but it is long, and may be difficult for some wheelchair users. If you have your ticket and have checked your luggage, you can go directly to the security check-in just across the bridge on the gate level. My guide suggested that you can avoid the sometimes long lines at the gate level security by going through security on the ticketing level. Unfortunately, on the day I visited the airport, the ticketing-level elevator inside security wasn’t working, so we had to go back down to the gate-level security.

For wheelchair users, the security procedure is familiar. You have to go around the metal detectors for a hand search. However, instead of having me wait for someone to get around searching me, they temporarily shut down the x-ray line so the man running the line could screen me and get me through quickly.

Spacious Inside is a Mile-Long Wheelchair Roll

The ticket counters are still at forehead level for most wheelchair users, but they now all have appropriate-height shelves for our use. The e-ticket machines are easy to get to, but they do not have openings below them to allow you to pull up and face the screen. The good news is that some of the machines are attended and the staff will be happy to assist anyone who has difficulty using them. The bad news is that the attended machines are in the bank farthest away from the elevators. The e-ticket machines do not have auditory output or other accommodations for low-vision or blind users.

All of the phone banks have at least one phone on the end that is easily accessible to wheelchair users. However, I noticed that at one of the banks a wheelchair was stored on the end in front of the phone, and at another a magazine rack was positioned where it blocked access. TTY phones are located throughout the airport but not at each phone bank.

The commuter planes now are boarded from a tunnel to the door, as on the larger planes. This saves the bus trip from
the terminal to the plane (along with the lift ride into and out of the bus) and the sometimes scary hand-crank lift into the plane. The tunnel that takes you to the commuter terminal requires an elevator trip at each end and a ride on the moving walkway. There is a music and light show that flashes across the walls and ceiling that makes it worth the trip.

The restrooms are all fully accessible, and family restrooms are available near most of the standard restrooms. The “regular” stalls are a foot deeper than normal to make room for luggage. Hopefully, this will mean the wheelchair accessible stalls will actually be available for wheelchair users.

The main terminal is quite attractive and spacious. The central part contains a fountain made by the same company that made the one in front of the Bellagio hotel in Las Vegas. (Again they were working out bugs, and it was not working the day I was there.) There is much more seating and space to move around in. It is also very, very, long (approximately one mile). There is no carpeting, so pushing around very, very, long (approximately one mile).

Wheelchairs are available in the terminal is much easier than in the old airport. There is no carpeting, so pushing around is much easier than in the old airport. Wheelchairs are available in the terminal at the ticket counters or at curb-side check-in at the passenger drop off levels. At either location, a sky cap can be contacted to provide assistance getting to your gate. It is not necessary, but they recommend that you contact the airline you are flying in advance to let them know you will need assistance when you arrive at the airport.

There are moving walkways and a tram that help make it easier and faster to get around in the terminal. The walkways are 56 inches wide and there are no prohibitions against wheelchairs as in many places. However, even with the extra width there is not much room to pass or be passed by people with luggage. The thresholds on the walkways are not too big but do require a little care to go up at the end. They are well marked with high-contrast yellow, and there are flashing lights and a spoken warning as you approach the end.

The tram is elevated and runs the length of the terminal, with stations in the middle and at both ends. Signs for the tram tell you whether it would be faster to take the tram or walkway from your position to your gate and how long until the next one arrives. The tram cars have no designated wheelchair seating but there is plenty of room. I would recommend entering at the ends of the cars for extra space. There are only seats on one side of the cars, so finding a seat may be difficult. There are grab bars everywhere for people who are standing. The ride is very smooth and the start and stop are gradual enough that holding your position is not too hard. Also, there is a spoken warning before the car comes to a stop. The thresholds are flat and getting on and off the car is easy. Information about the stations and gates is both visual and spoken.

If you’re used to the old terminal, getting around the new terminal will probably be a little confusing at first, but should get easier with time. The elevator signs are not always obvious, but they are not too hard to find if you have been doing this for a while. Although a bank of elevators is available to get between levels, I would still expect some waiting during the busier times.

Overall, the new terminal is immensely nicer, much easier to get around in, and generally quite accessible. I would recommend getting there early the first time you go so that you have time to find your way around and check the place out.

For more information before you go, you can call 734-Airport or tap into the web page at www.metroairport.com. For parking information, call 800-642-1978.

Ask the Physician

by Anthony Chiodo, M.D.

1. Question: How important is weight bearing (standing) for bone strength post-SCI?

Answer: Weight bearing is critical for osteoporosis prevention and treatment, and should be done for at least one hour every day. Weight bearing increases muscle and bone stress, which is the physiological trigger for building bone. Sitting helps one bear weight through the spine, while standing impels weight through the hips. Medications such as estrogen (for women), Fosamax, and Myocalcin (calcitonin) are also used for osteoporosis management.

2. Question: What can I do for shoulder pain? I do not want to use medications, especially pain killers.

Answer: Shoulder pain is a very common problem in patients who have a spinal cord injury. The best medicine is prevention and the best prevention is a thorough and consistent stretching, strengthening, and aerobic exercise program. All three are needed to maintain range of motion, strength, and endurance, respectively. If a specific injury occurs, it is important to have it evaluated early to diagnose the problem and to render the correct treatment to prevent or at least minimize loss of function. Usually heat or cold, physical therapy, and anti-inflammatory medicines will reverse the problem. However if something more serious has happened, it is best to find out early and get the correct treatment as quickly as possible.

3. Question: What are medications for bladder infections?

Answer: There are many medicines for urinary tract infections. Bactrim is common because it kills a lot of common bacteria, is well absorbed in the GI tract, concentrates well in the urine, and is inexpensive. Another common first-line antibiotic is Macrodantin, effective with some common urinary tract bacteria that bactrim does not kill well. Other first line antibiotics are Amoxicillin and Keflex. Cipro and Levaquin highly concentrate in the urine, but due to their high cost should be reserved to treat resistant-strain bacteria, which they do quite well. Intravesical

Gentamycin (medicine that one squirts directly into the bladder) is also very effective for resistant-strain bacteria.

Dr. Chiodo, who specializes in Spinal Cord Injury Medicine, welcomes your questions

This column is established to help answer our readers’ important health-related questions. If you have non-urgent questions for a physician or psychologist who specializes in SCI, please contact our office.
The University of Michigan Model Spinal Cord Injury Care System publishes SCI access twice annually. This newsletter is designed to provide information on research, treatment, and social issues related to rehabilitative care, spinal cord injury, and disability.

Established in 1985, the U-M Model SCI System receives funding from the National Institute on Disability and Rehabilitation Research (Award #H133N00009). It is one of 16 Model SCI Systems in the United States. The purpose of this research and demonstration project is to improve outcomes of medical and rehabilitative care provided to individuals with spinal cord injury.

David R. Gater, M.D., Ph.D., Medical Director, Co-Director, Co-Principal Investigator.

Denise G. Tate, Ph.D., Co-Director, Co-Principal Investigator.

Further information is available free of charge by contacting the project at the following address:
University of Michigan
Model Spinal Cord Injury Care System
300 North Ingalls
Ann Arbor, Michigan 48109-0491
Telephone: (734) 763-0971
Fax: (734) 936-5492
E-mail: model.sci@umich.edu.
Web: www.med.umich.edu/pmr/model_sci/

Please notify our office if you have address additions or corrections.

Regents of the University of Michigan
David A. Brandon, Laurence B. Deitch, Daniel D. Horning,
Olivia P. Maynard, Rebecca McGowan, Andrea Fischer
Newman, S. Martin Taylor, Katherine E. White, B. Joseph
White, ex officio.

Contributors: Claire Kalpakjian, Martin Forchheimer, Rosalie
Karunas, Glen Ashlock, Thomas Birk, Anthony Chiado, David
Gater, Kathy Klykylo, Scott Strath, Ann Swartz.
Editor: Sunny Roller

The U-M Model SCI Care System and the Ann Arbor Center for Independent Living present

A Conference on Wellness with SCI

Saturday, September 28, 2002
9:30 a.m.-3:30 p.m.
Domino’s Farms, Ann Arbor

Learn how technology can help you stay well throughout life!

This promises to be an innovative and important conference for persons with SCI, their friends, families, and helping professionals. Together, we will exchange information on how the genius of technology can aid the quest for excellent health with SCI.

Conference offerings include:
• Access to technological resources for wellness, including information on finances
• Technology for exercise (availability of fitness activities, training, gyms, and equipment tailored to persons with SCI)
• Travel, community access, and environmental control technology
• High-tech medical advances for health and fitness

The conference fee is $10. Reservations will be taken in July, via U.S. mail, email, telephone, and the Model System website. For more information, contact Kathy Klykylo, Model System Project Coordinator, at (734) 763-0971 or klykylo@umich.edu.
Model System website: http://www.med.umich.edu/pmr/model_sci