The US Food and Drug Administration (FDA) approved the first clinical trials of a human embryonic stem-cell treatment. California based Geron (www.geron.com) announced that the FDA had agreed to its phase I safety study of a stem-cell-derived therapy for spinal cord injury. In the trial, up to ten individuals within 7 to 14 days following spinal cord injury will be injected at the point of injury with stem-cell-derived ancestor of oligodendrocytes, which are key supportive cells in the central nervous system. The company hopes that the cells will accomplish two objectives. First, they hope to lay down sheaths of myelin, which is an insulator essential for conducting nerve impulses, around injured neurons. Second, and essential to improving function, stimulate nerve cells regeneration. The cells have demonstrated both capabilities in previous animal trials.

“There was a lot of scepticism as to whether we could reliably reproduce these manufactured products at levels of purity and identity sufficient to even allow the FDA to allow a phase I clinical trial,” says Michael West, who founded Geron in 1990 and is now chief executive of BioTime in Alameda, California. This is such a milestone because critics believed it would be 30–50 years before cells could be manufactured reliably enough for at least the first clinical trials.


Remember the iBOT®? It is the revolutionary mobility system developed to help people with severe mobility problems get around. The iBOT would literally balance on two wheels, which put the user at eye-level with people standing. It climbed stairs, too. It is nothing but a memory now! As of January, 2009, Independence Technology is no longer selling and marketing the iBOT®.

Despite all of its useful features and technological advances, the iBOT had limited sales primarily due to its $26,000 cost and a refusal by insurances to pay for it. But the Company remains committed to provide technical support and service to all iBOT Mobility System owners through the end of 2013. In a message posted on its website (www.ibotnow.com), iBOT owners can rest assured that they can call the Technical Support Center anytime they have question or an issue with your device. Source: http://www.ibotnow.com/

President Obama’s $787 billion economic stimulus package has been signed. Some cash for people with spinal cord injuries is expected. Here are some of the highlights:

• A one-time $250 stimulus payment for Supplemental Security Income (SSI) recipients. To receive the payment, you must be an adult who has been eligible to receive SSI sometime within the last three months. Payments will be made on a rolling basis during the month of May. If a payment is not received by June 4, 2009, contact the Social Security Administration. The money will be sent automatically to those who qualify via whatever method regular benefits are sent — direct deposit, check or on a Direct Express debit card.

• $12.2 billion goes toward funding special education for the 6.8 million students with disabilities.

• $87 billion in aid to states to help cover the cost of Medicaid.

The White House launched a informational Web site (www.recovery.gov) about where money from the economic stimulus package is going.

“We have begun the essential work of keeping the American dream alive,” Obama said just before signing the bill. “We will leave this struggling economy behind us and come out the other side more prosperous as a people.”
**Basics of Selecting a Wheelchair**

Most individuals with spinal cord injury (SCI) use a wheelchair for primary mobility. Although some individuals may have similar injuries and basic needs, every individual also has unique needs that should be addressed when selecting the proper wheelchair.

One of the biggest mistakes you can make is not learning how to select the proper wheelchair. You do not simply order off the Internet or from your local vendor. You need to do it right!

**A Team Approach**

Selecting a wheelchair is a team effort with you as team captain. It is your wheelchair, so it is your responsibility to make choices.

A doctor is your second team member. Your doctor writes the prescription for your wheelchair. The prescription essentially justifies which specific type of wheelchair and options you need.

A physical or occupational therapist is another essential team member. Your therapist evaluates your unique needs, suggests the proper equipment to meet your needs, and provides your doctor with the justification for your equipment needs.

Finally, you and your therapist need to choose a vendor. A good wheelchair vendor should be able to show you a selection of wheelchairs and answer questions about each one’s pros and cons. Plus, the vendor should be able to suggest wheelchair options and adjustments that best fit your needs.

**The Selection Process**

You need to be as informed as possible. You need to search the Internet, read wheelchair reviews, and get as much information as you can.

There are many aspects of your life to consider when selecting a wheelchair, and your therapist and vendor are there to advise you. Your goal is to select the wheelchair that best fits your needs based on your...

...goals. What wheelchair and options can help you best meet your goals?

...overall health. Consider your posture, body weight, pain type/severity, spasticity severity, bladder and bowel management, and pressure ulcer history.

...function: The proper equipment can often make your life easier and enhance your daily living activities despite limited communication, mobility, strength, range-of-motion, balance, ability to transfer, endurance, and energy level.

...environment: Consider a wheelchair that fits more easily into your environment instead of modifying your living space to fit your wheelchair.

...finances. Chances are you will have to pay at least some portion of the wheelchair costs. Always get the most “bang” for your money.

...transportation. Transferring and lifting the wheelchair into a car are issues for car owners. Power wheelchair usually own a van. People who fly often may prefer an easily collapsible manual wheelchair or a maintenance-free battery powered wheelchair.

...caregiver’s role. Most people who need a caregiver use a power wheelchair. Power seat options can often make a caregiver’s job easier.

After you make your wheelchair selection, your therapist and vendor will measure your body. This is important because any weight or posture changes can greatly impact how the equipment fits your body.

**Your New Wheelchair**

Once your vendor has your new wheelchair, do not simply have it delivered to your home. Instead, you need to meet your vendor and therapist for your wheelchair fitting. This allows your therapist and vendor to “fine-tune” all of the adjustable aspects of your wheelchair to fit your needs. The fitting lets you make sure that everything is the way you want with your new wheelchair before you take it home.

It is essential that you get a seating evaluation as part of your fitting. Not only are there differences between your old and new wheelchairs, but your body is always changing in weight, shape and posture. Such changes can put you at higher risk for a pressure sore. If you get a seating evaluation each time you get a new wheelchair, you can better prevent problems.

SOURCE: www.spinalcord.uab.edu/show.asp?durki=22414
The Multifit LegLifter® is an appliance designed to provide independence for elderly and people with disabilities who are unable to lift their legs from a bedside sitting position onto the bed.

- Lightweight and compact for easy portability and transporting
- No tools required for fitting to most bed styles
- Adjustable to suit all standard bed heights
- Slimline design fits in confined spaces,
- Folds flat against the bedside when not in operation
- Easy, convenient push button control
- Quiet, gentle and smooth operation while in motion
- Attractive molded contoured casing conceals machine parts and frame for safety, good looks and easy cleaning

It is safe, too. Automatic sensor turns motor off in the event of an obstruction. The telescopic support prevents accidental leg rest lowering under power if there is an obstruction.

$1,999.00
Source: http://www.multifit.co.nz/

Rehab Ideas® is on a mission to apply the latest in technology and engineering to increase the independence of people with disabilities.

The Off-Road Wheelchair Kit is a unique design with a base platform that is powered by the wheels of a power wheelchair and allows the user to access outdoor recreational areas such as beaches parks, and trails that are typically not accessible in a standard wheelchair. Allows access to uneven terrain with minimum maintenance and no modifications to wheelchair needed.

The Sideways Wheelchair Kit is an innovative adaptive device that is designed to be attached to a rear wheel drive power wheelchair. Normal movement of a wheelchair is limited to forward/back with left and right turning capability. This device enables the wheelchair to move sideways and therefore permits wheelchair users to access tight spaces.

The TRAKPAK enables powered wheelchair users to easily retrieve items from behind backrest. The unique linkage design requires minimum side clearance during deployment while not increasing overall width of wheelchair. Can be mounted on left or right side.

The Folding Tray Kit is another unique design. This tray folds out from below the armrest and can be used as a tray in front or beside the chair without changing the wheelchair width. Can be mounted on left or right side.

Source: www.cyberdyne.jp/english/robotsuithal/index.html
March 2009 - President Obama signed an executive order rescinding a previous order by former President Bush that limited federal funding for research using embryonic stem cells. This move by the new President may have a major impact on the search for treatments and cures of a wide range of disabilities.

“The full promise of stem cell research remains unknown, and it should not be overstated,” Obama said. “But scientists believe these cells may have the potential to help us understand, and possibly cure, some of our most devastating diseases and conditions.”

The order reverses the 2001 decision by Bush to restrict federal funding to research involving 21 existing embryonic stem cell lines. With those restrictions lifted, federally-funded researchers can now study hundreds of lines that have been developed in the last eight years.

Stem cell research offers hope to millions of people. With this order, President Obama has made it clear that “the United States will again conduct research based on sound science and not political ideology.”

March 2009 - In a White House signing ceremony, President Obama signed The Christopher and Dana Reeve Paralysis Act. This legislation’s three primary components will enhance:

1. Paralysis Research - Expands research on paralysis at the National Institutes of Health (NIH). This will encourage collaborative research by connecting scientists conducting similar work to further enhance understanding and speed discovery of better treatments and cures.

2. Paralysis Rehabilitation and Care - Builds on research to enhance daily function for people with paralysis, including a Clinical Trials Network to measure effectiveness of certain rehabilitation tactics and encourage shared findings on paralysis to improve rehabilitation.

3. Improving Quality of Life for Persons with Paralysis and Other Physical Disabilities - Works with the Centers for Disease Control and Prevention (CDC) to improve the quality of life and long-term health status of persons with paralysis and other physical disabilities.

According to Obama, “this bill is intended to advance research and improve quality of life for people with spinal cord injuries by addressing the challenges faced by Americans living with paralysis. Many folks and organizations from across the disability community worked hard to get this bill passed, and we are grateful to each of you for bringing us that much closer to providing all Americans with disabilities a full, fair and equal opportunity to achieve the American Dream.”

---

It's All Political

March 2009 - President Obama signed an executive order rescinding a previous order by former President Bush that limited federal funding for research using embryonic stem cells. This move by the new President may have a major impact on the search for treatments and cures of a wide range of disabilities.

“The full promise of stem cell research remains unknown, and it should not be overstated,” Obama said. “But scientists believe these cells may have the potential to help us understand, and possibly cure, some of our most devastating diseases and conditions.”

The order reverses the 2001 decision by Bush to restrict federal funding to research involving 21 existing embryonic stem cell lines. With those restrictions lifted, federally-funded researchers can now study hundreds of lines that have been developed in the last eight years.

Stem cell research offers hope to millions of people. With this order, President Obama has made it clear that “the United States will again conduct research based on sound science and not political ideology.”

March 2009 - In a White House signing ceremony, President Obama signed The Christopher and Dana Reeve Paralysis Act. This legislation’s three primary components will enhance:

1. Paralysis Research - Expands research on paralysis at the National Institutes of Health (NIH). This will encourage collaborative research by connecting scientists conducting similar work to further enhance understanding and speed discovery of better treatments and cures.

2. Paralysis Rehabilitation and Care - Builds on research to enhance daily function for people with paralysis, including a Clinical Trials Network to measure effectiveness of certain rehabilitation tactics and encourage shared findings on paralysis to improve rehabilitation.

3. Improving Quality of Life for Persons with Paralysis and Other Physical Disabilities - Works with the Centers for Disease Control and Prevention (CDC) to improve the quality of life and long-term health status of persons with paralysis and other physical disabilities.

According to Obama, “this bill is intended to advance research and improve quality of life for people with spinal cord injuries by addressing the challenges faced by Americans living with paralysis. Many folks and organizations from across the disability community worked hard to get this bill passed, and we are grateful to each of you for bringing us that much closer to providing all Americans with disabilities a full, fair and equal opportunity to achieve the American Dream.”

---

SCI & TBI

CONSUMER INFORMATION DAY

SPONSORED BY UNIVERSITY OF ALABAMA AT BIRMINGHAM SCI AND TBI MODEL SYSTEMS

Saturday, August 29, 2009 / Registration Begins at 8:00 am

- Learn how to apply for disability benefits and take advantage of back-to-work incentives.
- Get SPINAL CORD INJURY information such as research for a cure and more.
- Get TRAUMATIC BRAIN INJURY information such as changes in research and more.
- Talk with representatives from community-based services, equipment vendors and more!
- Win one of several door prizes!

LUNCH IS PROVIDED

REGISTRATION FORMS AND OTHER INFORMATION CAN BE FOUND ONLINE AT WWW.SPINALCORD.UAB.EDU

CALL THE OFFICE OF RESEARCH SERVICES AT 205-934-3283
REGISTRATION FOR THIS EVENT IS $5
Evaluating knowledge of autonomic dysreflexia among individuals with spinal cord injury and their families.

BACKGROUND: Autonomic dysreflexia (AD) is a potentially life-threatening complication of spinal cord injury (SCI) characterized by episodic paroxysmal hypertension and bradycardia in response to a noxious stimulus below the level of injury. Recognition of AD is crucial for individuals with SCI and their family members to facilitate timely and appropriate management.

OBJECTIVE: The objectives of this study were to (a) evaluate knowledge of AD among SCI consumers and their family members and (b) identify the preferred format and timing of education regarding AD recognition and management for these stakeholders.

METHODS: Cross-sectional descriptive study on a cohort of community-dwelling individuals with chronic SCI (N = 100) and their family members (N = 16) by self-report mail survey. Frequency distributions were used to tabulate survey responses on AD knowledge level and to characterize learning preferences and 2 x 2 chi-square analyses were conducted to determine whether there were factors (ie, impairment) associated with AD knowledge (ie, how to treat AD).

RESULTS: Individuals with SCI and their family members have gaps in their knowledge of AD. Traumatic SCI etiology (vs nontrauma) was associated with greater knowledge about treating AD. Although the SCI sample was a high-risk group, 41% had not heard of AD. More concerning was that 22% of individuals with SCI reported symptoms consistent with unrecognized AD. Respondents indicated that AD education would be best delivered during rehabilitation by a health care professional.

CONCLUSION: Further work is needed to promote knowledge about recognizing and managing AD. This may help reduce risk of cardiac and cerebrovascular disease in the SCI population.


Measuring depression in persons with spinal cord injury: a systematic review

BACKGROUND/OBJECTIVE: Depression has been studied extensively among people with spinal cord injury (SCI). However, basic questions persist regarding the reliability and validity of depression measurement in the context of SCI. The objective of this study was to evaluate the state of knowledge of depression measurement in persons with SCI.

METHODS: English-language peer-reviewed citations from MEDLINE, CINAHL, PsycINFO, ProQuest, Google Scholar, and Web of Science from 1980 to present. Two reviewers screened 377 abstracts on SCI and depression topics to identify 144 containing classifiable psychometric data. All 144 were reviewed by 6 reviewers. Twenty-four studies reporting psychometric data on 7 depression measures in SCI samples were identified, including 7 validity studies.

RESULTS: Reliability data were limited to internal consistency and were consistently good to excellent across 19 studies. Validity data were limited to concurrent validity, construct validity, and/or clinical utility in 10 studies. Measures were comparable with respect to internal consistency, factor structure, and clinical utility. Results are limited to peer-reviewed, English literature, and studies were not judged for quality.

CONCLUSIONS: Greater attention should be paid to the psychometric evaluation of established measures. Although existing evidence may not justify universal screening, we recommend depression screening in clinical practice when patients may be seen by non-psychology personnel. There is insufficient evidence to recommend one screening measure over another. Therefore, selection of measures will depend on clinician preferences. Psychometric studies are needed to show test-retest reliability, criterion validity, and sensitivity to change to improve depression recognition and treatment.

Participate in SCI Related Research

The Effects of Virtual Walking on Pain in Spinal Cord Injury Patients: Must be at least 19 years old and experience spinal cord injury related pain at or below the level of injury. $25 Visa cards for each of two test days. For information contact Christopher Stewart at (205) 934-3345 or ccstewrt@uab.edu.

The Effects of Nicotine on Pain in Spinal Cord Injury Patients: Must be at least 19 years old and experience spinal cord injury related pain. We are seeking participants who are both nicotine and non-nicotine users. $50 Visa cards for each of two test days. For information contact Christopher Stewart at (205) 934-3345 or ccstewrt@uab.edu.

One-Day Study on Relationship Between Neurologic Exam and Bladder Function: Participants in must be 19 to 60 years old and less than 60 days after a traumatic SCI or over 3 years after the injury. Five 15-20 minute testing sessions will be required over the course of 1 year for newly injured patients and 2 sessions of the same length during a 1 week period will be necessary for the chronic patients. Contact Pat Taylor at 205-934-5463 or poharet@uab.edu.

Validation of an Outcome Measure for Motor Recovery in Incomplete Spinal Cord Injury. Participants must be at least 19 years old and less than 60 days after a traumatic SCI or over 3 years after the injury. Five 15-20 minute testing sessions will be required over the course of 1 year for newly injured patients and 2 sessions of the same length during a 1 week period will be necessary for the chronic patients. Contact Pat Taylor at 205-934-5463 or poharet@uab.edu.

Study of Persons with Traumatic Spinal Cord Injury and Related Physical and Emotional Symptoms. Sadness, sleep problems, appetite changes, loss of interests and low energy are commonly experienced symptoms among persons with spinal cord injury. Unfortunately, such symptoms can affect physical health and quality of life. Surprisingly, there are no randomized controlled trials of treatments for mood disruptions to guide the care of people with SCI. There is a clear need to examine and establish evidence for the efficacy of standardized treatments such as medications used to treat low mood in this group of people. This study responds to that need, and as such, is a multi-site, randomized, double-blind, placebo controlled trial of venlafaxine XR (Effexor XR) to treatment symptoms of low mood in persons with SCI. The efficacy of venlafaxine XR will be determined by the degree to which mood symptoms are reduced from the beginning of treatment to the end of treatment (12 weeks) when compared to a placebo. We are also interested in the potential effects of venlafaxine XR in reducing SCI-related pain, increasing health related quality of life, and improving community reintegration. For information contact Jan Troncale at 205 996-5014 or jtroncal@uab.edu.

Pushin’ On is published biannually and provides information on spinal cord injury (SCI) to individuals with SCI, their families, and service providers. It is available via mail or found at www.spinalcord.uab.edu. It is distributed free of charge to its target audience. Alternate formats of this publication are available on request.

Pushin’ On is produced by the University of Alabama at Birmingham (UAB) Model Spinal Cord Injury System of Care and supported by grant #H133N060021 from the National Institute of Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, US Department of Education, Washington, DC. Opinions expressed in this newsletter are not necessarily those of the granting agency. The UAB Model SCI System of Care is directed by Professor Amie B. Jackson, MD, the Department of Physical Medicine and Rehabilitation at Spain Rehabilitation Center.

Editor: Phil Klebine, MA
Office of Research Services
619 19th Street South - SRC 529
Birmingham, AL 35249-7330
Phone: 205-934-3283 or TDD 205-934-4642
Fax: 205-975-4691
Email: sciweb@uab.edu

The University of Alabama at Birmingham provides equal opportunity in education and employment. ©2009 University of Alabama Board of Trustees

WWW.SPINALCORD.UAB.EDU