



Jeanette Francis walked from Sliammon to Westview

Vicki Donnelly walked from Myrtle Rocks to Salter Bay

Doug Lanigan ran from Lund to Beach Gardens

Tyler Lanigan ran from Lund to Salter Bay

Steven Gould ran from Lund to Willingdon Beach

Megan McAllister ran from Lund to Willingdon Beach

Ann Glen walked and cycled

BRAIN INJURY WALK SPONSORS

Slater Vecchio

Taw's cycle & sports

Fighting fit

Webster associates

3 leaf contracting limited

Adams concrete

Coast realty group

The chopping block

Lund water taxi

Sunlund by the sea

Skeeter Jack's outback shack

David Morris

Robert Woods

Dave Formosa





THE ANNUAL GENERAL MEETING

June 24, 2011

(In-attendance)

Donna Newall

Nicole Narbonne

Linda Amundsen

Gerraldine Braak

Linda Boutillier

Rick Underhill

Dewar Boutillier

Roger Underhill

Josh Friesen

Sandra Haszard

Melissa Tookey

Jerry Phillips

Vicki Donelly

Jim Wilkins

Sharon Brown

Harold Brown

Ursula Medley

Jena Lohrbach

David Morris

Debbie Dee

Zee Salehian

Maggie Hathaway

Jim Donnelly

Jeanette Francis

It was a good meeting, as meetings go. We supplied some fresh sandwiches from the Chopping Block and Harold brought in some Tim Horton's bits (they went fast.)

After the meeting we found out Sandra has a new job with Model Community Project. It was jokingly said that David was stealing our employees, at which point Josh said, "Well, if David is hiring..." But really, Josh is joshing you.

...Oh right, congratulations are in order for Sandra. Expect delivery in 6-8 business days. Maybe longer if the postal strike carries on.

SOME IMPORTANT AND NOT SO IMPORTANT BULLETINS

Our not-so-little-anymore Christmas baby Bonnie Grace is getting her first tooth (but Bonnie will not open her mouth for mama Jena to verify.)

The morning of June 27 Sandra, quite ungracefully, took a nosedive out of her office chair while singing Janis Joplin's Piece of my heart. Josh was the only Brainiac to witness this and was chuckling the remainder of the day.

< ON A VERY DIFFERENT TOPIC >

Beginning the first Friday of July the office will be closed on every Friday for the months of July and August

Our official brain injury mascot, Debbie's canine companion, little Frankie passed away on June 17.

It is always heart wrenching to lose a beloved pet and our deepest love and support go out to Debbie. He was everybody's friend and we'll miss him!



Donna's miracle baby Emma



Our bad-ass, blues-singing, tattoo-sporting, leather-wearing, Harley-riding, paper-pushing, bloody-awesome brain injury society director Debbie Dee and her ride. Rock on biker chick!



Autumn Skye Morrison working on the painting Debbie Dee would eventually buy.





Blues weekend Brainiac art sales

Jeanette Francis sold two sets of barrette and earrings

Melissa Tookey sold two agate necklaces and a few bracelets and a bunch of earrings

Denise Abbott sold two rocks; one to Melissa and one to Josh

C&J Metal Design sold one pig, one snail, one motorcycle, and numerous spark bugs. Sales allowed for a 10% donation back to the PPRBIS

Ursula Medly donated all profits of a painting she sold to the Blues Fest Society to the PRBIS

Jewelery Counter

It's me Melissa and that means it's a new Jewelry Counter . I found a wholesale place that allows people to buy beads at awesome prices. I'm thinking that I might get more into stone jewelry as the Agate necklaces both sold and people seemed to like them. I'm going to be getting rid of more beads.. so if you want some come and get them.

Researchers from UT Southwestern Medical Center have described for the first time how the brain's memory center repairs itself following severe trauma - a process that may explain why it is harder to bounce back after multiple head injuries.

The study, published in The Journal of Neuroscience, reports significant learning and memory problems in mice who were unable to create new nerve cells in the brain's memory area, the hippocampus, following brain trauma. The study's senior author, Dr. Steven G. Kernie, associate professor of pediatrics and developmental biology at UT Southwestern, said the hippocampus contains a well of neural stem cells that become neurons in response to injury; those stem cells must grow into functioning nerve cells to mend the damage.

"Traumatic brain injury (TBI) has received a lot of attention recently because of the recognition that both military personnel and football players suffer from debilitating brain injuries," Dr. Kernie said, adding that memory and learning problems are common after repeated severe head injuries.

"We have discovered that neural stem cells in the brain's memory area become activated by injury and remodel the area with newly generated nerve cells," Dr. Kernie said. "We also found that the activation of these stem cells is required for recovery."

The scientists developed unique transgenic mice that were unable to create hippocampal neurons when exposed to a usually harmless chemical called ganciclovir soon after brain injury. Four groups of these transgenic mice received either sham surgery or a controlled cortical injury (CCI) to mimic the diffuse damage of a moderate to severe head injury, and two of the groups were exposed to ganciclovir, Dr. Kernie said.

After a month - the time earlier experiments indicated it takes for neural stem cells to mature and integrate as neurons into the hippocampus - the researchers gave the mice a learning task called the Morris water maze in which the mice had to find a white platform hidden in a white pool of water. On the first day of learning the task, there were no group-noteworthy differences in swim speed, indicating no motor impairment in the test mice. During the next 10 days, however, the test group spent more time swimming along the edges of the tank, and they traveled longer distances to reach the platform.

"This suggests that injured mice who lack new nerve cells fail to progress to a more efficient spatial strategy to find the hidden platform. We interpret this result as a mild but statistically significant learning deficit," he said.

The UT Southwestern scientists then let the mice rest a day, removed the platform and re-tested them to see how well they remembered where the platform's location.

Compared to controls, CCI mice showed no preference for the platform's previous location or even for the target quadrant of the pool where the platform had been, Dr. Kernie said.

In comparison, CCI mice with intact nerve cell generation had an intermediate response to the water maze and non-CCI mice with intact nerve cell generation had the best response. Dr. Kernie said those findings suggest that neurogenesis is necessary for learning after TBI, and they raise the question of whether the neural stem cell pool is limited.

"The ability to self-repair may be limited," he said.

Since there are already Food and Drug Administration-approved medications available to increase neurogenesis, the next steps are to determine if these can be used to improve outcomes after traumatic brain injuries. In addition, Dr. Kernie and colleagues are determining what molecules direct this process and how the stem cell pool might be preserved in order to enhance the ability to recover from recurrent injury.

Blueberries and Other Purple Fruits to Ward Off Alzheimer's, Multiple Sclerosis and Parkinson's

Eating purple fruits such as blueberries and drinking green tea can help ward off diseases including Alzheimer's, Multiple Sclerosis and Parkinson's, a University of Manchester report claims.

New research from Professor Douglas Kell, published in the journal Archives of Toxicology, has found that the majority of debilitating illnesses are in part caused by poorly-bound iron which causes the production of dangerous toxins that can react with the components of living systems.

These toxins, called hydroxyl radicals, cause degenerative diseases of many kinds in different parts of the body.

In order to protect the body from these dangerous varieties of poorly-bound iron, it is vital to take on nutrients, known as iron chelators, which can bind the iron tightly.

Brightly-colored fruits and vegetables are excellent sources of chelators, as is green tea, with purple fruits considered to have the best chance of binding the iron effectively .

However, despite conflicting reports, the widely-publicized benefits of red wine seem to work in a different way, and have no similar benefits, Professor Kell's paper noted.

This new paper is the first time the link has been made between so many different diseases and the presence of the wrong form of iron, and gives a crucial clue as to how to prevent them or at least slow them down.

Professor Kell argues that the means by which poorly-liganded iron accelerates the onset of debilitating diseases shows up areas in which current, traditional thinking is flawed and can be dangerous.

For instance, Vitamin C is thought to be of great benefit to the body's ability to defend itself against toxins and diseases.

However Professor Kell, who is Professor of Bio analytical Science at the University, indicates that excess vitamin C can in fact have the opposite effect to that intended if unliganded iron is present.

Only when iron is suitably and safely bound ("chelated") will vitamin C work effectively.

Professor Kell said: "Much of modern biology has been concerned with the role of different genes in human disease.

"The importance of iron may have been missed because there is no gene for iron as such. What I have highlighted in this work is therefore a crucial area for further investigation, as many simple predictions follow from my analysis.

"If true they might change greatly the means by which we seek to prevent and even cure such diseases."

What do you call a group of brains who form a singing group at school?

A glia club.

Soldiers With Brain Injuries at Higher Risk of Epilepsy Decades Later, Study Finds

Soldiers who receive traumatic brain injuries during war may be at a higher risk of epilepsy even decades after the brain injury occurred. The new research is published in the July 20, 2010, print issue of *Neurology*[®], the medical journal of the American Academy of Neurology.

"Given the better chances of survival in soldiers fighting in conflicts today, our research suggests that all veterans with a traumatic brain injury should be routinely screened for post-traumatic epilepsy, even decades after the injury," said study author Jordan Grafman, PhD, of the National Institute of Neurological Disorders and Stroke in Bethesda, Md.

Post-traumatic epilepsy is the most common cause of new-onset epilepsy in young adults, with nearly 30,000 new cases per year in the United States.

For the study, researchers asked 199 veterans who experienced a brain injury 35 years prior whether they ever had a seizure. They were also given intelligence tests. The group underwent scans to detect brain lesions.

Of the 199 people, about 44 percent developed post-traumatic epilepsy.

"For a surprising 13 percent, the post-traumatic epilepsy didn't show up until more than 14 years after the brain injury," said Grafman. "This research strongly suggests that veterans with brain injury will require long-term neurology care."

The study also found that the type of seizure changed over time, often becoming more severe (or causing loss of consciousness).

High-dose cannabis stimulates growth of brain cells in rats

Cannabis, the third most popular recreational drug after alcohol and tobacco, yesterday won an unlikely accolade from scientists who said that it could boost brain power.

Experiments on rats given a potent cannabinoid have shown the drug stimulates the growth of new brain cells. Canadian researchers found that the drug caused neurons to regenerate in the hippocampus, an area that controls mood and emotions, after one month of treatment.

Its effect was similar to that of the antidepressant drug Prozac, which also stimulates nerve growth in the hippocampus. The rats were less anxious and more willing to eat in a novel environment that would normally make them fearful.

Most drugs, including alcohol, heroin, cocaine and nicotine, have been shown to destroy nerve cells in the hippocampus, the researchers from the University of Saskatchewan, Canada, say. "The present study suggests that cannabinoids are the only illicit drug that can promote adult hippocampal neurogenesis following chronic administration," they write in the *Journal of Clinical Investigation*.

The finding runs counter to previous research highlighting the risks of cannabis use, including a heightened degree of psychosis in vulnerable users, and an increased risk of lung cancer similar to that in tobacco smokers. The authors say regular cannabis users are known to suffer acute memory impairment, as well as dependency and withdrawal symptoms.

The new research suggests that the size of the dose may be crucial. The results showed that regular injections of high, but not low, doses of the artificial cannabinoid HU210 were associated with anti-anxiety and antidepressive effects.

"These complicated effects of high and low doses of acute and chronic exposure to cannabinoids may explain the seemingly conflicting results observed in clinical studies regarding the effects of cannabinoid on anxiety and depression," the scientists say.

The study emerged from the recent discovery that, unlike other parts of the brain, the hippocampus can generate neurons throughout the lifespan of mammals, including humans.

Natural selection has conserved cannabinoid receptors in animals that have been separated by evolution for 500 million years, suggesting they have an important biological role. Cannabinoids appear to alter the effects of pain, nausea, tumors, sclerosis and other disorders in both animals and humans, the team says.

The experiment involved giving rats regular injections of HU210 for a month. At the end of this time, hungry animals showed significantly less reluctance to eat in a novel environment. Rats are normally neophobic - wary of new situations.

Scientists are getting a glimpse of how jokes are processed by the human brain.

Brain scans show that puns and other types of joke are deciphered in different regions.

But to actually appreciate a joke, and have a good laugh, requires the use of a central pathway in the brain.

The finding could explain why some people lose their sense of humor following damage to a particular part of the brain.

To investigate the biology of humor, researchers based at York University in Toronto, Canada, and the Institute of Neurology in London, UK, carried out brain scans on 14 volunteers while their subjects listened to jokes.

'Funniness' scale

They chose two types of joke: so-called semantic jokes, such as, "What do engineers use for birth control?...Their personalities", and puns like, "Why did the golfer wear two sets of pants?...He got a hole in one".

Separate regions of the brain process different jokes

Laughing was discouraged while scanning was in progress but afterwards each volunteer rated the jokes on a funniness scale of one to five.

Areas of the brain known to be involved in the processing of language were active while the subjects processed semantic jokes.

Different areas of the brain, involved in speech production, lit up when the subjects deciphered puns. But for both types of jokes, the authors found activation in an area of the brain called the medial prefrontal cortex, which controls reward-related behaviour.

Complex role

Furthermore, activation in this region correlated with the subjects' funniness ratings.

The authors conclude that separate systems in the brain process different types of jokes. But the pleasure associated with "getting" a joke involves shared circuitry, they say.

The research, published on Sunday in the journal Nature Neuroscience, throws light on the biological nature of humor, and could explain why some types of brain damage affect humor appreciation.

Humor has a complex role in thought, communication and social interactions, and it may be unique to humans.

Humour and Laughter affects the brain

Humor perception involves the whole brain and serves to integrate and balance activity in both hemispheres.

Derks, at the College of William and Mary in Williamsburg, has shown that there is a unique pattern of brain wave activity during the perception of humor. EEG's were recorded on subjects while they were presented with humorous material.

Laughter truly is the best medicine!

During the setup to the joke, the cortex's left hemisphere began its analytical function of processing words. Shortly afterward, most of the brain activity moved to the frontal lobe which is the center of emotionality. Moments later the right hemisphere's synthesis capabilities joined with the left's processing to find the pattern — to 'get the joke'.

A few milliseconds later, before the subject had enough time to laugh, the increased brain wave activity spread to the sensory processing areas of the brain, the occipital lobe. The increased fluctuations in delta waves reached a crescendo of activity and crested as the brain 'got' the joke and the external expression of laughter began. More about how stress affects our brain right here.

Derks' findings shows that humor pulls the various parts of the brain together rather than activating a component in only one area. Your sense of humor provides a powerful antidote to immuno-suppressive effects of stress in two ways, through:

1. Direct effects of humor and laughter upon the immune system,
2. Indirect effects resulting from humor's ability to help you cope on the tough days.

The simple truth is that happy people generally don't get sick.

~ Bernie Siegel, M.D.

Mild traumatic brain injury can be effectively treated with acupuncture

A new report published in the Journal of Neurotrauma reveals.

Researchers from the University of Colorado studied the effect of an acupressure treatment which involved stimulating particular points on the body.

The treatment, known as Jin Shin, was studied on 38 volunteers, half of whom were placed in a control group which involved the same experts conducting the treatment on other points of the body that did not come under the treatment.

“We found that the study subjects with mild traumatic brain injury who were treated with acupressure showed improved cognitive function, scoring significantly better on tests of working memory when compared to the TBI subjects in the placebo control group”, lead researcher Professor Theresa Hernandez said.



Self-Administered Light Therapy May Improve Cognitive Function After Traumatic Brain Injury

At-home, daily application of light therapy via light-emitting diodes (LEDs) placed on the forehead and scalp led to improvements in cognitive function and post-traumatic stress disorder in patients with a traumatic brain injury (TBI), according to a groundbreaking study published in *Photomedicine and Laser Surgery*, a peer-reviewed journal published by Mary Ann Liebert, Inc.

Margaret Naeser, PhD, LAc, VA Boston Healthcare System, Boston University School of Medicine, and colleagues from Massachusetts General Hospital, and Harvard-MIT Division of Health Sciences and Technology, in Boston, and MedX Health Inc. (Mississauga, ON, Canada), report on the use of trans cranial LED-based light therapy to treat two patients with longstanding traumatic brain injury (TBI). Each patient applied LEDs nightly and demonstrated substantial improvement in cognitive function, including improved memory, inhibition, and ability to sustain attention and focus. One patient was able to discontinue medical disability and return to full-time work. These cognitive gains decreased if the patients stopped treatment for a few weeks and returned when treatment was restarted. Both patients are continuing LED treatments in the home. The findings are presented in "Improved Cognitive Function After Trans-cranial, Light-Emitting Diode Treatments in Chronic, Traumatic Brain Injury: Two Case Reports."

Low-level light therapy using lasers or externally placed LEDs to deliver red and near-infrared (NIR) light energy has been shown in cell-based studies to improve cellular metabolism and to produce beneficial physiological effects. In acute stroke in humans, for example, trans-cranial NIR light therapy applied less than 24 hours post-stroke was associated with improved outcomes.

"The results of this study will provide a basis for future therapeutic use of phototherapy to improve recovery after injury and facilitate management of other CNS disorders. The development of novel therapies to restore function after neurologic injury, stroke, or disease is an increasingly important goal in medical research as a result of an increase in non-fatal traumatic wounds and the increasing prevalence of dementias and other degenerative disorders in our aging population," says Raymond J. Lanza fame, MD, MBA, Editor-in-Chief of the Journal.

.....ANOTHER LITTLE PIECE OF MY HEART NOW BABY.....

“Change is inevitable - except from a vending machine.”

One thing that's changing round here is that I'm leaving this job - but only for a few months.

My new position is for 5 months at Model Community Project, compiling the Business and Access Guide. After the book and website are completed, I hope to be back at the Brainiacs to carry on with the usual silliness including falling out of chairs while singing Janis Joplin at the top of my lungs.

What a great experience this has been! You are a wonderful group to work with and I'm going to miss yas. I hope it's not too difficult to re-learn how to behave in a normal working situation again (whatever "normal" is; besides a cycle on the washing machine...).

Hello Summer...we are waiting...

Well, despite the lack of sun so far this year we have had some excellent outdoor adventures. Beginning with the Blues Festival on the weekend of June 03--05. Our tent was set up and we had lots of participation from blues fans new and old that set up their craft tables and sold their art pieces to the audience. All in all a fun and successful weekend. Well done to all!

The following weekend on Saturday June 11th we held our 2nd Annual Walk, Ride, Run the 101 for Brain Injury Awareness. We had 5 marathon runners, 2 walkers and 2 cyclists complete their portions of the event, with two of the runners completing the ultra marathon of 57 kilometers in just less than 6 hours. We are proud of our members Vickie Donnelly and Jeanette Francis, with Vickie doing 25 K walking from Myrtle Rocks to Saltery Bay and Jeanette doing 10K from Sliammon to Westview. And a big thanks to our sponsors, the generous donations of the community and to our volunteers! See you all next year for an expanded route that will include the Lower Sunshine Coast.

We held our AGM on June 24th and our Centre was full up! Thanks to all who came out to participate and meet the board of directors. And special thanks to Sandra, Josh and Melissa for your great reports!

We are very happy to report that we were successful in a grant application that will see some big changes to the Centre. We can't say too much about it yet, but look for photos and a story in the late summer/early fall edition of the newsletter.

We are busy planning for our summer activities, including our picnic...we are going to fundraise for the trip to Texada Island. This is an event we really look forward to!

We are going through a little change this summer as the Centre will now be closed on Fridays. Our regular programming will run all summer, including the ever--- popular fitness group.

So, as we head into the warmer days of summer I would like to remind you all to have fun, play hard, stay safe and take care of your brains!

Debbie Dee,
Executive director

Powell River Brain Injury Society

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