

Watt's research focuses on effects of bullying



By Travis Gulbrandson
travis.gulbrandson@plaintalk.net

Some surveys estimate that approximately 10 to 11 percent of teenagers report being bullied on a regular basis. Those same teens show a higher instance of psychiatric disorders later on.

Dr. Michael Watt, assistant professor of Basic Biomedical Sciences at the University of South Dakota, currently is overseeing a project at the university which focuses on how the brains of people bullied in adolescence are affected by the experience.

Ultimately, this research could lead to more effective treatments for the problems that arise, including anxiety, depression, attention deficit, eating disorders, substance abuse and suicide.

"There's a big, big need to understand how this exposure to bullying during adolescence actually results in these

disorders," Watt said. "To do that, we try and focus on areas of the developing adolescent brain that we know control behavioral responses."

Prior to the project at USD, all of the studies relating to bullying had been retrospective in nature – usually involving a survey of people who had been bullied.

"No one had really looked at what was happening within the brain itself, so we developed a model to try and replicate what's going on with teenage bullying," Watt said.

Through this model, the researchers are able to observe the prefrontal cortex, which enables such cognitive processes as decision-making, regulation of emotions and working memory.

"All of those processes are disrupted in the disorders which are associated with bullying," Watt said. "What we found was that after the bullying experience,

Spotlight On UNIVERSITY OF SOUTH DAKOTA

activity of neurotransmitted dopamine was much, much lower in the prefrontal cortex."

According to Watt, other studies show that this dopamine is very important for complex cognitive processes, which could be affected long-term in the brain during adolescence, a time of major growth and reorganization for it.

"Unfortunately, that state of flux within the adolescent brain makes it particularly vulnerable to stress-induced insult, such that normal development will be disrupted," Watt said. "This can result in some extremely negative impacts on behavioral regulation in later life."

At the USD labs, Watt and the other researchers try to figure out how the brain functions under normal conditions, identify what has gone wrong because of a stressful experience, and then look at how to fix it.

"Ultimately, we hope that the information from all of these studies can actually be applied in biomedical research so that treatments for disorders that have emerged ... can be treated more effectively,"

Watt said.

The research model was first set up in 2008, and is hypothesis-directed, with further investigations into other factors as they arise.

"The research plan as a whole doesn't really have an end, but we will focus on particular components at a time," Watt said.

"Typically, our experiments take anywhere from three months to maybe two years before we can get all the information that we need."

Watt recently was awarded a grant from the National Science Foundation that will enable the research to continue for the next three years.

This, coupled with the efforts of graduate and undergraduate student researchers, makes the process much easier.


"Without their assistance, a lot of this work would be taking far, far longer to do," Watt said.

Now that researchers are beginning to understand the underlying changes in brain activity related to bullying, they also may become better able to restore some of the damage caused by it.

"There is a huge, huge burden on society to recognize that bullying is a big problem. It's not a rite of passage, and it shouldn't be regarded as such," Watt said. "We can't seem to deal with all the consequences of bullying just by trying to permit bullying in the first place. You can't monitor teenagers' behavior 24 hours a day."

"So, that's where if we do see some kind of psychiatric disorder resulting from being bullied, we need to step in and try a treatment option," he said. "Often the most successful are a combination of psychological treatments like behavioral therapy, and also some pharmaceutical treatment."

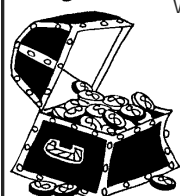
"Hopefully we can make the pharmaceutical side of things even better," he said.



Arrrrre you advertising in the Broadcaster?

Watch the "treasure" pile up when you advertise in the **bp Broadcaster Press**

201 W Cherry Vermillion, SD
Phone: (605) 624-4429
Fax: (605) 624-2696



When It's Time To...



It's Time to place an ad in the Broadcaster

Call 624-4429 or stop by to place yours today! **bp Broadcaster Press**

BUYING Cars, Trucks and SUV's 605-202-0899

WANTED Cottonwood & Walnut Trees Along river bottoms, creeks, & streams. Call Miles: 402-278-1476

Annual Meeting Township of Garfield
will be held **Tuesday, March 5, 2013, 1:30 p.m.** at the Dalesburg Lutheran Church for the purpose of electing one supervisor, treasurer and one clerk and for any other business that comes before the board.
Jim Danielson, Clerk

Special Winter Rates Available Now INDOOR STORAGE RENT/LEASE
South Hwy. 81, Norfolk. Former Arkfeld Manufacturing building Short or Long Term Lease



- Up to 50,000 square feet; Will divide
- Large overhead doors; Loading dock
- Front office space available
- Lease Price Negotiable
- Climate Controlled
- Will remodel to suit

Limited Space Remaining!
Contact Brian **402-598-0642**

midwest GOLD-SILVER

Convert Your Unwanted Gold & Silver & Receive Your Cash Today

- Coins-Gold, Silver & Platinum
- Bullion-Gold, Silver & Platinum
- Silver Flat Ware
- Silver Jewelry
- Gold Jewelry • Broken Chains
- Old Rings • Bracelets
- Dental Gold

2901 Broadway, Suite E Next to Sears Yankton, SD 57078
605-260-4653
Wed., Thurs., Fri. 10AM-5PM, Sat. 10AM-4PM
www.midwestgold-silver.com

Vermillion Annual Township Meeting

The Citizens of the Township of Vermillion in the county of Clay, South Dakota and who are qualified to vote at Township elections, are hereby notified that the Annual Township Meeting for said Township will be held at Clay County 4-H Center, in said Township, on TUESDAY, the 5th day of March next, at 7:00 o'clock P.M., for the following purposes:

To elect one Supervisor for the term of three years; one Township Clerk, one Treasurer, each for the term of one year; The Vermillion township will accept sealed bids with certificates of liability for the following:

- 1) Gravel
- 2) Snow Removal and Blading
- 3) Ditch Mowing

and to do any other business proper to be done at said meeting when convened.

Michelle Hauck Township Clerk
2719 Falcon Court
Vermillion, SD 57069

IMMEDIATE OPENINGS OAKWOOD APARTMENTS

- AFFORDABLE RENT ADJUSTMENT FOR YOUR INCOME
- LARGE 2 AND 3 BEDROOM RENTAL UNITS
- STOVE, REFRIGERATOR & AIR CONDITIONING
- OFF-STREET PARKING AND PLUG-INS
- UTILITIES INCLUDED
- ON-SITE COIN LAUNDRY
- PLAYGROUND EQUIPMENT & SAND BOX
- 3 BLOCKS FROM CAMPUS

CALL NIKKI OR DAVE
(605) 624-9557



Annual Township Meeting Pleasant Valley Township

Tuesday, March 5th at 7:00 pm at Clay Rural Water Plant

All citizens of Pleasant Valley Township are invited to attend this meeting for the purpose of electing one each: supervisor, clerk, and treasurer. Other annual business will be conducted including opening of quotes for gravel, road maintenance, and snow removal. Any citizen wishing to add an item to the agenda, please contact the supervisors at least 24 hours prior to the meeting.

Brandi Johnson, Clerk