

# Treatment for severe premenstrual symptoms one step closer to reality

U of A researchers are looking to better understand how brain receptors that fluctuate throughout menstrual cycles might be linked to extreme PMS

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News Writer

A drug to treat irritability, chocolate cravings, and other symptoms of premenstrual dysphoric disorder (PMDD) is closer to becoming a reality.

University of Alberta researchers have been in long-term collaboration with colleagues at the University of Aston in Birmingham, UK and the University of Cambridge to better understand how certain brain receptors—those with levels that fluctuate throughout the menstrual cycle—might be linked to PMDD, a severe form of premenstrual syndrome (PMS).

In a recent study led by Dr Mike Edwardson at the University of Cambridge, the group has gained new understanding in regards to the subunit structure of the major inhibitory neurotransmitter in the brain known as GABA.

"The problem has been that we didn't know the exact subunit

composition of these receptors and that's what this paper was attempting to show," said Dr Susan Dunn of the University of Alberta's Department of Pharmacology.

Edwardson's study, which was published this month in the journal *Molecular Pharmacology*, was particularly interested in the part of the receptor that seems to be able to decrease neuronal activity.

Dunn explained that designing a drug for PMDD requires a thorough understanding of the structure of these GABA receptors so that its subunits may be tagged as targets for specific antibodies.

Attaching peptide tags to GABA's subunits has been one of Dunn's areas of expertise within the research group.

Another U of A researcher collaborating with the team is Dr Jean-Michel Le Melleo, a professor in the Department of Psychiatry who specializes in the study of PMDD.

Le Melleo explained that the symptoms of PMDD, which can be

both physical and emotional, usually appear a week or two prior to menstruation and then subside at its onset.

"Premenstrual Dysphoric Disorder affects every aspect of [a sufferer's] life. It affects their work—interpersonal relationships especially—food intake, [such as] cravings for salt or chocolate, for example," Le Melleo said. "In severe cases it can be associated with suicide thoughts."

But despite the group's increased understanding of the link between PMDD and GABA receptors, Dunn warned not to expect to see a drug on the pharmacy shelves anytime soon.

"[Now] we have to look at the binding sites [that] lie between adjacent subunits," she said.

Dunn explained that only when the structures of GABA's subunits are more fully understood can they create a drug that will treat many of PMDD's symptoms.

"We're a long way towards that, but I don't think it's going to be immediate."

## CAMPUS CRIME BEAT

Compiled by Cody Civiero

### IT'S BEEN A SLICE

On 17 March at 8:45pm, a resident of Lister Hall was caught stealing pizza from an eating establishment within the residence. The student was observed eating slices of pizza prior to leaving the establishment, but denied doing so when confronted by staff. Campus Security officers attended the scene of the supposed crime and confirmed via video surveillance that the student had, in fact, stolen the pizza. The matter is being dealt with by Residence Services.

### A WHEEL PAIN

On 18 March at 11:30am, CSS received a report of a driver running over the foot of a pedestrian while leaving the Education Car Park. The driver was leaving the parkade when she failed to notice a pedestrian crossing in front of her vehicle. Fortunately, the injuries to the pedestrian were minor. With a significant amount of pedestrian traffic on campus, you would do well to look

left and right before crossing the street.

### TECHNICAL FOUL

On 18 March at 4:40pm, CSS officers responded to a disturbance in the main gym. Two intoxicated males were disrupting a Panda's basketball practice. When CSS members arrived, the males took off running. They were told to stop but refused to do so at which time, one of the males was arrested for being drunk in public. The second male, upon observing the arrest of his friend, stopped running. Both males were subsequently removed from the U of A area.

### ASMASHING GOOD TIME

On 18 March at 11:05pm, a HUB resident assistant contacted Campus Security to report two male suspects breaking glass at the bottom of a residential stairwell in HUB Mall. Peace officers attended the area and identified two males matching the descriptions of the suspects. The males were subsequently arrested for mischief and turned over to the EPS. One male was charged with mischief and taken into custody on several outstanding warrants. The second male was removed from campus, as his warrants were less impressive.

### PICKUP ARTIST PICKED UP BY 5-0

On 19 March at 11:45pm, Campus Security responded to a complaint of a male sexually harassing a female in the area of the HUB LRT station. Upon arrival, the complainant stated she had been approached by a male who threatened to harm her if she didn't sleep with him. The complainant provided a detailed description of the suspect, which led to an arrest a short time later. The male, well known to Campus Security, was subsequently charged by CSS with trespassing and being drunk in public. The EPS also charged the male for uttering threats and removed him from campus.

### STEAL A LITTLE POP AND IT ALL COMES BACK TO YOU

On 21 March at 12:45am, Campus Security officers responded to a report of several youths stealing pop from a HUB merchant by squeezing their arms through a security gate. Officers attended the area and found several youths well known to CSS and the EPS. Two of the youths were charged with trespassing. One of them was also turned over to the EPS for breaching his probation conditions. Further charges are pending.



Who are these two mysterious ladies? Why they're next year's news team!



Come out to the final news meeting **Friday at 3pm in SUB 3-04** to congratulate Jen and Kirsten, and watch as they call campus 5-0 and have Natalie and Ryan forcibly removed from the Gateway office.

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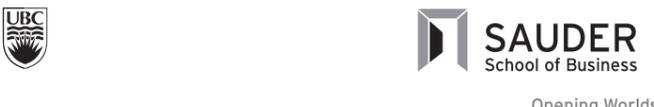
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