Advertisement

Have Canadian researchers found a way to reverse pot's harmful effects?

CTV London: Picking your brain

Researchers find way to reverse negative effects of pot use in the brains of teens. Celine Moreau reports.

587 587

Misha Gajewski, CTVNews.ca
@mishagajewski

Published Wednesday, September 13, 2017 10:30AM EDT

Western University researchers might have found a way to reverse the negative effects of the psycho-active ingredient in marijuana on the adolescent brain.

Chronic cannabis use during adolescence has been linked to the development of psychiatric disorders such as anxiety, depression and schizophrenia later in adulthood.

But, according to a new study published in Nature's Scientific Reports journal on Tuesday, there might be a way to reverse this.

The study exposed adolescent rats to high levels of tetrahydrocannabinol (THC), once they reached adulthood the researchers studied the rats' prefrontal cortex.

The researchers found that THC exposure reduced a chemical in the brain called GABA, which regulates hyperactivity in the brain and has been associated with schizophrenia.

"We found a series of molecular changes in the prefrontal cortex that were very comparable to what we observe in the brains of people who have disorders like schizophrenia," lead researcher Steve Laviolette told CTV London.

RELATED STORIES

- **Study: Increasing marijuana use during teen years linked to psychosocial problems**
- **Legalizing cannabis could help reduce opioid use: experts**
- **Support effort to learn more about impact of cannabis, researchers urge Ottawa**

RELATED LINKS

- **Nature Scientific Reports Study**

Advertisement

MOST READ

Canadian doctor shows off her health card at Bernie Sanders' Medicare bill launch
144,428 Views

Blind goat missing from Alberta farm found safe and sound
141,722 Views

Policy says U.S. will not defend Canada from ballistic missile attack: General
133,254 Views

PHOTOS

A man rolls a marijuana cigarette in Trenton, N.J. on March 21, 2015. (AP / Mel Evans)

Laviolette and his team then used drugs to increase the amount of GABA in the rats' brains. According to the study, this reversed chemical and behavioural effects of the THC and eliminated schizophrenia-like symptoms.

"We were able to pharmacologically restore the GABA system in the prefrontal cortex and remarkably what we saw was that it actually reversed all these behaviour deficits associated with this THC exposure," said Laviolette.

More research is still needed to determine if boosting GABA has the same result in humans, but for those who have mental health problems Laviolette says there's new hope.

"I think this is a really promising lead in terms of the potential of developing much safer versions of cannabinoid type drugs," he said.

Laviolette added that these findings are especially important given the impending legalization of marijuana in Canada.

"What this could mean is that if you are going to be using marijuana, in a recreational or medicinal way, you can potentially combine it with compounds that boost GABA to block the negative effects of THC," he said in a statement.

Laviolette and his team are now looking towards finding more effective and safer treatments for mental health disorders, such as addiction, depression and anxiety.

With files from CTV London's Celine Moreau

587 587

Report Error

TOP VIDEO

Liberal MP Arnold Chan dies after battle with rare cancer

Cyclist attacks car in road rage incident in B.C.

Eight seniors die in sweltering Florida nursing home

DON'T MISS

Missing Alberta blind goat found safe and sound

Richard Crouse on the debut of his new show 'Pop Life'

Road to The Invictus Games: Event rules and regulations

MORE STORIES FROM HEALTH NEWS »

- **Canadian doctor shows off her health card at Bernie Sanders' Medicare bill launch**
- **UPDATED What can be done to prevent sexual violence after natural disasters**
- **UPDATED Florida nursing home deaths spur efforts to protect elderly**
- **Quebec to offer overdose-reversal drug naloxone free of charge in pharmacies**

'Trade your status card for a Canadian citizenship,' Sen. Beyak says to First Nations
84,141 Views

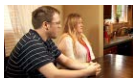
Menace in disguise: Biting Asian ladybug giving helpful cousin a bad name
65,933 Views

'I love you so much sis': Selena Gomez thanks friend for kidney transplant
54,645 Views

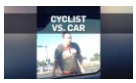
MOST WATCHED

Cyclist attacks car in road rage incident

CTV News Channel: Child neglect sentencing



B.C. road rage incident caught on camera



CTV National News: 8 dead in Fla. nursing home

CTV Atlantic: RCMP identify killed officer

CTV National News: Wildfire evacuees see homes

MYNEWS

Did you capture some amazing images or video? Share it with CTV News and it could appear online or on-air!

MYHEALTH VIDEOS

No link of increased mortality with hormone therapy: study

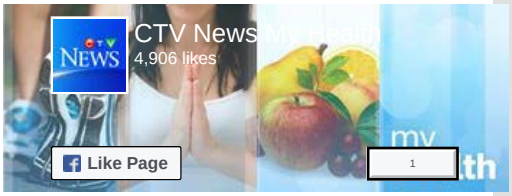
Facts and physics don't add up as Cuba health attack mystery deepens

- **Rome launches anti-mosquito campaign after chikungunya cases**

Researchers investigate the health benefits of garlic

Seniors in Vancouver Island use boxing to battle Parkinson's

JOIN THE CONVERSATION...



CANADA »

Sask. boy, 6, dies after dog attack

- RCMP lacked warrants for Stingray phone catchers in handful of cases: watchdog
- Disclosure wrangling persists in Ontario gas plants trial; new delay possible

WORLD »

London fire probe chief: Survivors feel 'anger and betrayal'

- Jitters in Europe as Russia-Belarus war games set to begin
- 15 Marines injured when vehicle ignites on California base

ENTERTAINMENT »

Baby No. 2 on way for Adam Levine and wife Behati Prinsloo

- Sean Spicer pressed (gently) as 'Jimmy Kimmel Live' guest
- Angelina Jolie on her Cambodian epic and the power of family

HEALTH »

Facts and physics don't add up as Cuba health attack mystery deepens

- Canadian doctor shows off her health card at Bernie Sanders' Medicare bill launch
- What can be done to prevent sexual violence after natural disasters

POLITICS »

Liberal MP Arnold Chan dies at the age of 50

- 'Trade your status card for a Canadian citizenship,' Sen. Beyak says to First Nations
- Policy says U.S. will not defend Canada from ballistic missile attack: General

SCI-TECH »

One of the greatest Arctic legends: Undersea wreck to unlock secrets of Franklin

- Where is the body of John Franklin? Inuit historian thinks he knows
- Protected or not, Canadian species are in serious decline: WWF report

BUSINESS »

Home sales to foreign buyers decreasing in the Greater Golden Horseshoe area

- B.C. home sales stayed strong in August but experts predict change is coming
- Energy stocks help S&P/TSX composite gain ground, price of oil higher

AUTOS »

B.C. teen has car impounded after going 70 km/h over speed limit

- Merkel calls for German automakers to regain consumer trust
- Half of Canadians trust self-driving cars: survey

SPORTS »

Racism banner gets fans removed from Fenway Park in Boston

- Winnipeg Jets and forward Bryan Little agree to six-year extension
- Little payoff for cities that subsidize sports facilities, say experts

LIFESTYLE »

Blind goat missing from Alberta farm found safe and sound

- Newlyweds cancel Italian honeymoon to find their lost parrot
- O bluetiful: Crayola announces name of new blue hue

CTV NEWS ON THE GO »

New Montreal flag recognizes Indigenous peoples

- Missing blind goat comes home
- Senator faces backlash for First Nations comments

IN PICTURES »

Hurricane Irma batters Florida

- Hurricane Irma's path of destruction in the Caribbean
- 2017 Toronto International Film Festival

Advertise on CTVNews.ca | Advertise with Bell Media | About CTV | Careers | CTV News Stox | Press Room | Producer Guidelines | Contact Us |

Local News CTV News Atlantic | CTV News Barrie | CTV News Calgary | CTV News Edmonton | CTV News Guelph | CTV News Kitchener | CTV News Lethbridge | CTV News London | CTV News Montreal | CTV News Northern Ontario | CTV News Ottawa | CTV News Prince Albert | CTV News Red Deer | CTV News Regina | CTV News Saskatoon | CTV News Toronto | CTV News Vancouver | CTV News Vancouver Island | CTV News Windsor | CTV News Winnipeg | CTV News Yorkton |

CTV News Programs CTV National News | Power Play | W5 | CTV Question Period |

Video Sign In | CTV News GO | Video Help | CTV News on Mobile |

Subscribe to Newsletters | Manage Subscriptions |

View Mobile Site |

Use of this Website assumes acceptance of Terms & Conditions and Privacy Policy

© 2017 Bell Media All rights reserved.