



# Heart Murmurs

February 2022

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*Heart Murmurs* is the newsletter of CASE published each year in February, March, April, May, September, October, November, and December. Suggested articles can be submitted to Barry Clark at [kbclark1@telus.net](mailto:kbclark1@telus.net) Back issues of the newsletter are posted on the CASE website at: <http://www.edmontoncase.ca>

If you wish to unsubscribe from this newsletter, please e-mail [gbevans@telus.net](mailto:gbevans@telus.net) with a subject line "unsubscribe".

## **Cardiac Athletic Society Edmonton Board**

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## **Support for CASE**

As a recognized charitable institution, CASE makes a significant difference to people interested in maintaining their heart health. If you make a financial gift, either as a direct contribution, or in the memory of a member who has passed, we will issue a tax receipt.

## **WELCOME BACK DINNER**

Our annual Welcome Back Dinner was postponed in January due to the latest variant. We are trying again to schedule it on Thursday February 24 at 5:30 PM at the Boston Pizza on Calgary Trail. Please hold this date but it will be finalized closer to the event covid willing! Watch for an e-mail to confirm the plans.

## **ANNUAL GENERAL MEETING...AGAIN**

The 2021 Annual General Meeting for CASE is scheduled for 7:00 PM Monday, March 14, 2022, at SEESA. We know that it is only a few short months since the delayed 2020 AGM that was held in November. However, an AGM is normally held in March each year. This meeting will provide opportunity to review the issues from the last year and

look at what new opportunities we may find in 2022, hopefully as Covid 19 passes into memory...

Proof of vaccination and masking will be required for entry to SEESA.

### ***HAVE YOU PAID YOUR 2022 CASE MEMBERSHIP?***

If you have not yet paid your \$30 annual membership dues for CASE for 2022, please send a cheque to:

CASE Treasurer  
John Sieffert  
Unit 225  
2903 Rabbit Hill Road  
Edmonton, AB  
T6R 3A3

### ***COVID-19 DRUG TRIAL TO TAKE PLACE IN EDMONTON***

Trials for a Canadian-developed COVID-19 treatment are set to begin at the University of Alberta. The study will evaluate the safety and efficacy of the drug Apabetalone as a potential oral medication to help prevent severe infection from COVID-19.

“It’s a pretty exciting breakthrough,” Donald McCaffrey, the president and CEO of Resverlogix, said. The clinical program will test epigenetics on COVID-19 patients, including those who were sick with a variant strain. “The genetics is the hardware, the epigenetics is the software - the science of learning to turn on or off various genes,” McCaffrey explained.

The drug has been in development for more than 20 years, and when COVID-19 emerged, a group of universities began studying drugs already in production that could be repurposed to help fight COVID-19. Apabetalone ended up being “number two on the list,” according to McCaffrey. “We do have a huge lead on the world in knowledge on this (protein) and how to remove it.”

The drug is an oral pill taken once in the morning and once at night. A total of 100 patients are expected to be enrolled over the coming week to take part in the trial at various sites in Canada and Brazil.

“By removing the bromodomain (BD2) and shutting down the ACE2 receptors, you’re greatly inhibiting the virus’s ability to reproduce,” McCaffrey shared.

***We do not change the human DNA:*** The average COVID-19 hospital stay right now is 11.9 days, McCaffrey told CTV News Edmonton. That stay increases up to 23 days if the

patient has cardiovascular issues. He said the cost can range from \$26,000 to \$52,000 per patient receiving care. “The goal is to show that we can remove the long hospital stays.”

McCaffrey said because of Apabetalone’s unique epigenetic mechanism, it has the ability to stop disease progression by regulating the “expression” of disease and inflammation-causing genes. “We do not change the human DNA; it remains identical,” he said. “But we do turn the genes on or off, and that has a huge therapeutic benefit for our patients.”

In addition to reducing the duration of the disease, the hope is that the drug will also potentially be able to protect those infected from the long-term effects of long-COVID.

***It will be effective:*** Apabetalone would cost about \$7 per pill and should be taken for two to three weeks, McCaffrey said. If the trials are successful, the team’s next step would be to apply for an emergency management application in Canada in June, and then in the U.S. about six months later, McCaffrey explained.

“The vaccine is the most important thing at the moment,” Dr. Noel Gibney, professor emeritus, critical care medicine at the U of A, added. “But we know that even with vaccination, people with critically poor immune systems are still at risk. So, it really is important that we have other therapies.”

With years of data backing the science, efficacy and safety of the drug, McCaffrey is confident it could help “manage the real problem,” which he says is the “bottleneck” in hospitals. “No matter what Greek alphabet we get hit with next, it will be effective against all future variants.”

Source: CTV News Edmonton Published Jan. 24, 2022 1:37 p.m. MST  
<https://edmonton.ctvnews.ca/exciting-breakthrough-covid-19-drug-trial-to-take-place-in-edmonton-1.5752493>

### ***IS “BROKEN HEART SYNDROME” BECOMING MORE COMMON?***



Rising rates of these unusual heart attacks, also known as takotsubo syndrome or stress cardiomyopathy, may reflect increased awareness of the condition.

The classic symptoms of a heart attack, such as squeezing chest discomfort and trouble breathing, usually occur when a blocked coronary artery chokes off part of the heart’s blood supply. But those same symptoms can arise when the coronary arteries are clear. In some of these cases, broken heart syndrome may be to blame.

Also known as takotsubo syndrome, or stress cardiomyopathy, this uncommon condition usually results from severe emotional or physical stress, such as from the death of a loved one, a serious illness or surgery, or a natural disaster. Other possible triggers include a fierce argument, financial loss, intense fear, or (in rare cases) even happy emotional events such as a wedding or surprise party.

"Sudden, extreme stress can cause a surge of adrenaline that precipitates a cascade of changes to the heart that we're just beginning to unravel," says Dr. Malissa Wood, co-director of the Corrigan Women's Heart Health Program at Harvard-affiliated Massachusetts General Hospital.

The changes affect the heart's muscle cells and blood vessels, temporarily altering the shape of the left ventricle, the heart's main pumping chamber. The heart must work harder than usual, leading to chest pain and breathlessness.

***A shape-shifting heart:*** In the early 1990s, Japanese doctors first described a condition in which the heart's left ventricle takes on an unusual appearance, developing a narrow neck and a round bottom. The shape resembles a tako-tsubo (octopus pot), a traditional clay vessel a fisherman uses to trap an octopus.

Because takotsubo syndrome was often preceded by emotional events, such as heartbreaking grief or intense stress, it also became known as broken heart syndrome and stress cardiomyopathy. Physical stress from an accident, illness, or surgery can also precipitate the problem, but in up to 20% of cases, no specific trigger can be identified.

***Cases in middle-aged women:*** Takotsubo syndrome, which is far more prevalent in women than men, may not be as rare as once thought, according to a study published Oct. 19, 2021, in the Journal of the American Heart Association. Based on hospital data from more than 135,000 people diagnosed with takotsubo syndrome from 2006 to 2017, researchers found that the incidence rose steadily during that time. And among women ages 50 to 74, takotsubo diagnoses rose six to 10 times more rapidly than for any other demographic.

"In general, we are now better at recognizing and diagnosing all types of heart attacks in women," says Dr. Wood. Prior to the early 2000s, heart disease was substantially underdiagnosed in women. The increase in takotsubo syndrome cases since that time probably reflects heightened awareness of the condition among cardiologists, she says. "It will be interesting to see how the incidence changes in the setting of the COVID-19 pandemic, given the extreme emotional and physical stress people have experienced."

***Diagnosing a broken heart:*** When people show up at an emergency room with chest pain, they receive a test that records the heart's electrical activity (electrocardiogram) and

blood tests. But with takotsubo, results from those tests may be similar to those of a regular heart attack. So, doctors rely on an ultrasound of the heart (echocardiogram) to check for the characteristic change in the heart's shape, although more invasive testing may be needed to rule out a traditional heart attack.

"The person's history tips us off more than anything else," says Dr. Wood. The triggering event typically occurs within minutes or hours of when the symptoms appear, she says. Although the symptoms subside quickly with treatment, the heart abnormality can persist for weeks. But the damage isn't usually permanent, and most people recover fully within a month.

***Mending a broken heart:*** Treating takotsubo syndrome usually involves blood pressure medications known as ACE inhibitors and beta blockers, which help lower the heart's workload. It's also important to address physical and emotional conditions that may have played a role in triggering the disorder, says Dr. Wood. "I make sure my patients have access to therapy or programs that can help them manage stress, such as the mindfulness and resiliency training programs..."

Source: Heart Health February 1, 2022 By [Julie Corliss](#), Executive Editor, [Harvard Heart Letter](#)  
<https://www.health.harvard.edu/heart-health/is-broken-heart-syndrome-becoming-more-common>

# CASE Events Calendar - February 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Healthy at Heart TFRC 11:30 to 12:45	2 CASE Essentrics Online 11:00	3 Healthy at Heart TFRC 11:30 to 12:45	4	5
6	7 CASE Essentrics Online 11:00	8 Healthy at Heart TFRC 11:30 to 12:45	9 CASE Essentrics Online 11:00	10 Healthy at Heart TFRC 11:30 to 12:45	11	12
13	14 Family Day  CASE Essentrics online 11:00	15 Healthy at Heart TFRC 11:30 to 12:45	16 CASE Essentrics Online 11:00	17 Healthy at Heart TFRC 11:30 to 12:45	18	19
20	21 CASE Essentrics Online 11:00	22 Healthy at Heart TFRC 11:30 to 12:45	23 CASE Essentrics Online 11:00	24 Healthy at Heart TFRC Welcome Back Dinner 5:30 PM Boston Pizza	25	26
27	28 CASE Essentrics Online 11:00  Board Meeting					

Note: Watch email for more detail on activities and events.